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Mining and Development:

Examining the effectiveness of mining company
community development intervention
in New Ireland Province,
Papua New Guinea.

A thesis presented in partial fulfilment of the requirements for the degree of

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Abstract

This thesis explores the effectiveness of mining company contributions to development within the gold mining communities of Lihir and Simberi islands, in New Ireland Province, Papua New Guinea (PNG). More specifically, it analyses the extent to which forms of community development intervention undertaken on Lihir Island by Newcrest Mining Ltd, and on Simberi Island by St Barbara Ltd, actually support meaningful forms of development. This has been achieved through the use of development ethics (Goulet 1995) as a conceptual research framework, which when applied in research practice, gives priority to the wellbeing of those whose realities may be ignored, misread or marginalised within the neoliberal realm of development.

This research is based on a total of four months of fieldwork undertaken on Lihir and Simberi islands. It draws on community narratives to frame the relevance of human wellbeing, human rights and inclusive development as development ethics within the research context. This development ethics research lens facilitates discussion about the meaningfulness of development intervention from a morally-informed community development perspective. Underpinned by a locally contextualised appreciation of what human wellbeing and meaningful development means on Lihir and Simberi islands (which results in the exposition of a set of local Community Wellbeing and Development Rights), a critical review of the practice and governance of development intervention within each Island community is then detailed. The analysis of development interventions then proceeds using firstly an evaluation of practices within a human rights lens, and secondly consideration of inclusive development outcomes relative to Newcrest's and St Barbara's development related rhetoric.

The resulting account of mining company community development intervention is critical, but ultimately hopeful. This hopefulness reflects the hope of customary landowners that mining will one day lead to meaningful development benefits. The analysis from this development ethics lens reveals insights into the promotion of social justice through the delivery of mining company development interventions. It is argued that mining companies have the opportunity to enhance a set of locally significant and internationally recognised human rights that are important to the wellbeing and development of customary landowners. Although, in some instances, mining company performance is falling short with respect to the enhancement of these human rights, it is argued that the enhancement of Community Wellbeing and Development Rights exists as a potential means for mining companies to add value to host communities. However, if such a development programme is to be meaningful to customary landowners, it must also advance equity and fairness. If mining companies fail to navigate such complexities, this thesis contends that mining, and forms of mining company community development intervention, will likely do more harm to communities than good.

Dedication

In loving memory of Priscilla

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To begin, I would like to recognise the significant contributions to this research made by the customary landowners of Lihir and Simberi islands, New Ireland Province, PNG. I am indebted to everyone who shared their life aspirations and experiences of mining intervention with me. I hope that I do justice to these voices and views within the following pages. I would especially like to acknowledge the communities of Sianios on Lihir Island, and Simberi on Simberi Island, where I lived for much of the time while undertaking my fieldwork. Thank you for your kindness and hospitality, for ensuring my safe-keeping, and for welcoming me into your lives.

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In addition to undertaking my doctoral studies, over the past four years I have been part of a Massey University research project investigating the contested involvement of corporations in community development initiatives in the Pacific. This broader project underpins my doctoral research, and has been driven by the work of Professor Regina Scheyvens and Professor Glenn Banks. It was Glenn and Regina who initially recognised the importance of (what would later become) my PhD research question, and who made my participation in this project possible. Thank you both for giving me the opportunity to undertake this research. Not only have you supported and challenged me throughout my candidature via your supervision, but by saying 'yes' and including me in this project, you have changed my life. It has been a privilege to work with you both, and alongside Dr Sharon McLennan and Dr Emma Hughes.

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Abbreviations

CCD	Corporate Community Development
CSR	Corporate Social Responsibility
DSTP	Deep-Sea Tailings Placement
IBP	Integrated Benefits Package
ICCPR	International Covenant on Civil and Political Rights
ICESCR	International Covenant on Economic, Social and Cultural Rights
LGL	Lihir Gold Limited
LICHP	Lihir Islands Community Health Program
LMALA	Lihir Mining Area Landowners Association
LSDP	Lihir Sustainable Development Plan
MOA	Memorandum of Agreement
MRA	Mineral Resources Authority
NRLLG	Nimamar Rural Local Level Government
PGK	Papua New Guinean Kina
PNG	Papua New Guinea
SDGs	Sustainable Development Goals
SGCL	Simberi Gold Company Limited
SMAA	Simberi Mining Area Association
TKA	Tuk Kuvul Association
VDS	Village Development Scheme

1. Introduction

This thesis offers a critical, yet ultimately hopeful account of the capacity of the mining sector to support locally meaningful forms of development within New Ireland Province, Papua New Guinea (PNG). The primary research question answered within this thesis discussion is: ‘How effective are the community development initiatives of mining companies operating in New Ireland Province, PNG, in bringing about locally meaningful development’? Guided by the concept of social justice, I advocate that human wellbeing, human rights and inclusive development are ethics of development relevant to the assessment of forms of community development intervention initiated by mining companies. Premised on these development ethics, I explore the opportunities and the challenges of positioning mining companies as agents of meaningful forms of community development.

This doctoral research forms a part of a broader Massey University research project funded by the Royal Society of New Zealand. The underlying Massey University research project was based on the need for more evidence of how corporations do community development, to better understand both the potential and risks associated with this. Driven by the work of the Principal Research Investigators, Professor Regina Scheyvens and Professor Glenn Banks, the central question driving the broader research project is: ‘Do the community development initiatives of mining and tourism corporations operating in the Pacific bring about locally meaningful development’?

The aim of the Massey University programme of research as a whole is to advance knowledge by developing an empirically rich, and theoretically and methodologically innovative examination of the role of the private sector in community development in diverse areas in the Pacific. The objectives of the broader research project include, to:

- Document corporate motivations and activities regarding forms of corporate community development intervention;
- Examine the value of these activities from the perspectives of affected communities;
- Work with stakeholders to develop better practices;
- Seek to revolutionise understanding and conceptualisation of the private sector’s roles in development.

Given that the private sector has been recognised to hold an integral role in the promotion of development (United Nations General Assembly, 2015), examining the role and effectiveness of the private sector as an agent for development is a topical research area within the development field.

1.1 Mining and the Mandate of Sustainable Development

On the 25th September 2015 the United Nations General Assembly adopted the post-2015 development agenda: Transforming our world - the 2030 Agenda for Sustainable Development. This new development agenda recognises "...the need to build peaceful, just and inclusive societies that provide equal access to justice and that are based on respect for human rights (including the right to development), on effective rule of law and good governance at all levels and on transparent, effective and accountable institutions" (United Nations General Assembly, 2015, pp. 9/35, par 35). It also encompasses a set of 17 international Sustainable Development Goals (SDGs) that succeed the earlier Millennium Development Goals. These new goals seek to achieve development that is economically, socially and environmentally balanced and integrated. Alongside governments and civil society, this new global development architecture identifies the private sector as holding a critical role in terms of SDG implementation (refer to Appendix 1 for a complete list of the SDGs).

As depicted by Figure 1, the World Economic Forum has suggested that the mining sector has the opportunity and potential to advance all of the SDGs (World Economic Forum 2016):

"According to the International Council on Mining and Metals (ICMM), in many low and middle-income countries, mining regularly comprises 60-90% of total foreign direct investment (FDI), 30-60% of total exports, up to 20% of government revenues and as much as 10% of national income*. In addition, the products of mining are necessary to all aspects of life, contributing to health, well-being and development of society. Combined with the capability to mobilize physical, technological and financial resources required for sustainable development, it is clear that mining and metals have an important role to play in the SDG agenda" (World Economic Forum, 2016, p. 7).

* <https://icmm.com/document /8264>

Although mining activity can act as an impediment to sustainable development through contributing to natural resource depletion and environmental degradation, as well as human displacement, armed conflict, social inequality and corruption, the World Economic Forum (2016) suggests that mining companies also have the opportunity to leverage mining activity to advance the achievement of the SDGs. The integration of SDG objectives into core business practice using corporate policies and standards, corporate management systems and planning processes, impact assessment, and risk and opportunity assessment, have all been suggested as being the possible means for leveraging mining to promote development (ibid.).

The concept of leveraging mining activity to promote human development is not new. Partnering with the mining sector to reduce the adverse impacts of mining and to increase the benefits of mining for affected communities has been linked to an increase in public concern about extractives sector practices (Yakovleva, 2005). A wave of environmental and human rights incidents including the Exxon Valdez oil spill in Alaska in 1989, acid drainage contamination from the Summitville Mine in USA in 1992, allegations of Shell's complicity in human rights abuses in Nigeria in the 1990s, and more recently alleged human rights violations connected to Barrick Gold's mining operations in Porgera, PNG, have resulted in increasing mining sector engagement with the concept of corporate social responsibility (CSR) (Yakovleva, 2005), as well as with the related rhetoric of development (Honke, 2013).

While research examining the effectiveness of extractive sector social responsibility initiatives is increasing¹, little is known about the actual implementation of mining company community level development projects and the effectiveness of such projects from a community perspective in PNG. Ranängen and Zobel (2014) suggest that within the broader scope of extractive sector research, available research tends only to "...scrape the surface and not dig deeper into implementation issues", with research instead being "...more focused on describing how CSR theoretically should be practiced rather than to start from the industrial reality they cover" (2014, p. 309). They conclude that empirical studies that explore the implementation of social responsibility within the extractives sector merits further research. This research responds to this call. Specifically focused on the mining sector CSR-in-development agenda (Sagebien and Whellams, 2010), it applies empirical and related theoretical insights to case study research to answer the question: 'How effective are

¹ See for example; Banks, Kuir-Ayius, Kombako, and Sagir (2013); Edoho (2008); Frynas (2005a); Hamann (2003), Idemudia (2009a, 2009b); Ite (2007); Kuir-Ayius (2016) Wheeler, Rechtman, Fabig, and Boele (2001).

the community development initiatives of mining companies operating in New Ireland Province, PNG, in bringing about locally meaningful development’?

Figure 1: Major SDG mining sector issues



Figure 1: Major issue areas for mining and the SDGs. Abbreviations (in order): NCDs = non-communicable diseases; TB = tuberculosis; OSH = occupational health and safety; EIDs = emerging infectious diseases; TVET = technical, vocational, and educational training; CCS = carbon capture and storage; IFFs = illicit financial flows; PPPs = public-private partnerships. SDG icons adapted from <http://www.globalgoals.org/>.

(World Economic Forum, 2016, p. 6).

1.2 Research Objectives

This research considers the extent to which community development intervention undertaken by the Lihir Gold Ltd. (LGL) (and its parent company Newcrest Mining Ltd.) on Lihir Island, and by the Simberi Gold Company Ltd. (SGCL) (and its parent company St Barbara Ltd.) on Simberi Island, actually supports, and has the capacity to support, locally meaningful forms of development. As part of this, it explores what constitutes real or meaningful development within the research context. It also investigates the benefits of mining company development intervention, how these benefits are shared, and theorises what it is that a CSR-in-development agenda enables mining companies to do.

The following table (Table 1) comprehensively breaks down the primary research question, detailing the four underlying research objectives that guide this research, as well as the secondary research questions related to each objective.

Table 1: Research Objectives

<p>Objective 1 – To understand what constitutes mining company community development intervention</p> <p>How is mining company community development intervention understood within the case study context?</p> <ul style="list-style-type: none"> - By mining companies (and company staff)? - By customary landowners affected by mining across the Lihir and Simberi islands? <p>How does community development intervention connect with the practice of Corporate Social Responsibility?</p> <p>How is community development intervention carried out in practice?</p> <p>Who shapes the development intervention agenda?</p>
<p>Objective 2 – To understand what constitutes locally meaningful development</p> <p>What constitutes ‘meaningful development’ within the case study context?</p> <p>What is the relationship between wellbeing and development within the case study context?</p>
<p>Objective 3 – To understand the extent to which mining company development intervention currently contributes to meaningful development.</p> <p>How do customary landowners of Lihir and Simberi experience mining company development intervention?</p> <p>How do varying forms of mining company development impact local livelihoods?</p> <p>Do customary landowners within the case study context consider forms of development intervention to align with local aspirations for development?</p> <p>How does development intervention promote social justice?</p>

Objective 4 – To understand the reasons why mining company development intervention may have been considered successful or unsuccessful within the case study context from a local level perspective, and how it could be more successful in the future.

What motivates mining companies to intervene in local level development within the case study context?

Is development intervention socially beneficial on Lihir and Simberi islands?

How can mining company development intervention advance meaningful development within mining impacted communities in New Ireland Province?

1.3 Thesis Structure

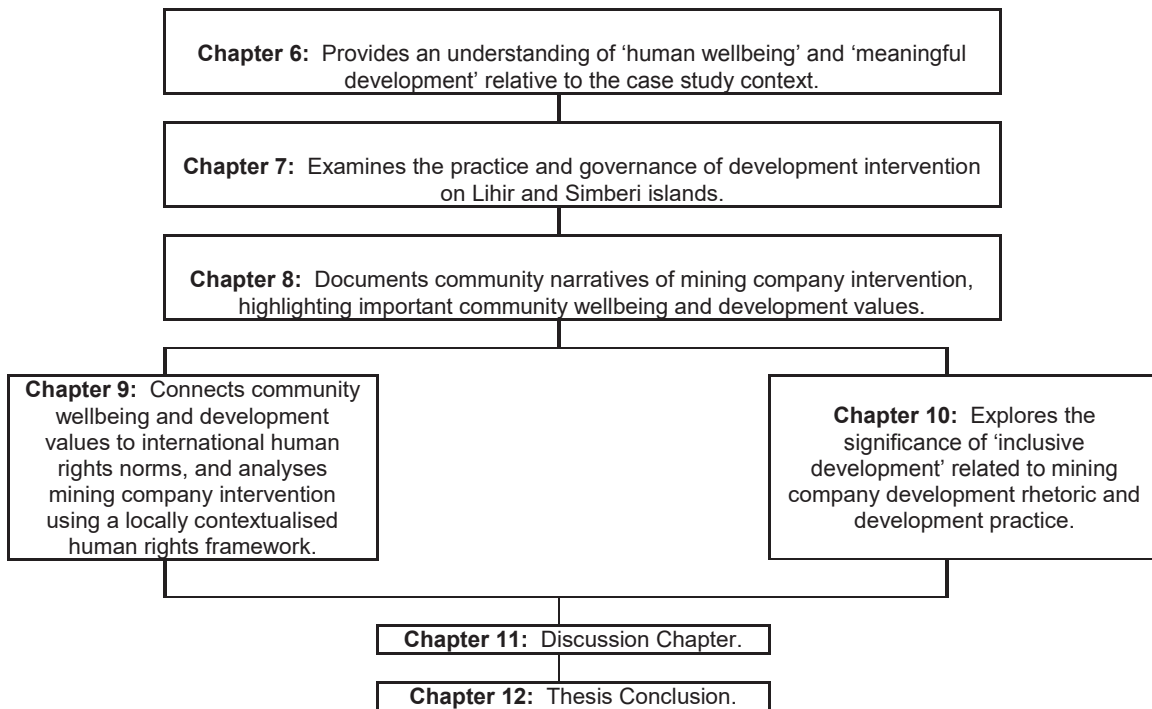
The following chapter (**Chapter 2**) provides a background of the state of human development in PNG, and outlines the related role of large-scale mining as means to advance such development. It also provides a background to social life and mining within the research context. **Chapter 3** then delves into the complex and multifaceted relationship between mining and development, and reviews an array of international and PNG-based literature to provide a foundation for this research. **Chapter 4** follows on by detailing the multi-dimensional development ethics research lens that was established and applied as part of this research to inform the analysis of the research data. Based on a premise of (1) human wellbeing, (2) human rights and (3) inclusive development, this chapter draws on literature to explore the relevance of these constructs for development and social justice. The related case study based research methodology is then detailed in **Chapter 5**.

The research findings are then developed within Chapters 6 to 11, as illustrated in Figure 2. Following an initial review of literature relevant to understanding the concept of development in PNG in **Chapter 6**, I then draw from the research data to establish a more nuanced appreciation of meaningful development on Lihir and Simberi islands. It is established here that within the research context, local human wellbeing and development aspirations reflect the importance of remediation and reciprocity, and emphasise the significance of mining company development obligations. **Chapter 7** examines the governance arrangements that inform the delivery of mining company community development intervention, and details the practice of development intervention across the case study context. Examining relevant Community Development and Benefit Sharing Agreements, this chapter suggests reasons for the disjuncture between local development aspirations and mining company development practice. Community experiences of mining intervention are then documented in **Chapter 8**. This chapter contextualises a core set of local community wellbeing and development values relevant to the analysis of mining company community development intervention.

Grounded within the community wellbeing and development values established in Chapter 8, **Chapter 9** explores these values through the lens of human rights. The set of human rights that emerge as particularly pertinent to development and wellbeing on Simberi and Lihir islands are analysed in terms of the extent to which they are respected and promoted through mining company intervention. Here, the research findings illustrate the varying extent to which Newcrest (LGL) and St Barbara (SGCL) are supporting locally meaningful forms of development. The concept of inclusive development is explored in **Chapter 10**, which reviews the scope of corporate - community participation and engagement, and recognises the significance of gender exclusion and adverse inclusion for development outcomes within the case study context.

Chapter 11 draws together the key research findings to establish a set of empirical insights about the capacity of mining company community development initiatives to bring about locally meaningful development on Simberi and Lihir islands. It is argued here that when corporate profit-based motivations interface with ethical intent, mining companies have the best chance of addressing the imbalance between the costs and benefits of mining. In turn, this conceptual space highlights opportunities that exist to advance meaningful forms of community development through the respect of human rights. Finally **Chapter 12** concludes the thesis, drawing the research findings back to the context of the new global architecture of development.

Figure 2: Structure of the Research Findings



2. Research Context

This chapter introduces the socio-cultural and development context in which this research is set. The discussion begins with an overview of the state of human development in PNG, depicting a country besieged by poverty and social inequality despite its vast natural resource wealth. It then backgrounds the legislative context relevant to mining and development in PNG, pointing to the ongoing reliance on extractive sector derived economic growth as a means to advance human development standards. In line with this policy directive, it explains that in PNG, legislation formalises the connection between mining companies and the promotion of human development. The remainder of the chapter then focuses on the local case study context, providing a background to social life and mining on Lihir and Simberi islands. Drawing from available literature, it outlines a range of social, cultural and economic changes that have occurred on Lihir and Simberi since the commencement of mining to suggest that a complex process of mining-fuelled social change is currently underway across the research context.

2.1 Human Development in PNG

In 2015 the United Nations Development Programme (UNDP) ranked PNG as being the 158th lowest of 173 countries on the Human Development Index (UNDP, 2015). This composite measure of human wellbeing is based on a person's ability to lead a long and healthy life, their life expectancy at birth and their ability to acquire knowledge (ibid.). The state of human development in PNG has subsequently been described as being at a low level (UNDP, 2015, p. 214). Other multilateral and bilateral organisations have also reported on PNG's poor state of human development. According to AusAid (2013), 30 to 40 per cent of the seven million (plus) population in PNG is believed to be facing hardship and living with either limited or non-existent access to basic health, education and sanitation services. Health related development indicators further signal that PNG has a high level of infant mortality and maternal mortality (Pacific Islands Forum Secretariat, 2013), as well as a high prevalence of HIV/AIDS (Dinnen, Porter, & Sage, 2011), malaria, and tuberculosis (Pacific Islands Forum Secretariat, 2013). Table 2 identifies a suite of human development indicators relevant to PNG, as recorded by the World Bank.

Table 2: World Bank Development Indicators for PNG

Population	Urban Population (2013): % total population	Gross National Income (2013)	Gross Domestic Product growth (2012-2013)	Prevalence of child malnutrition underweight: % of children under 5 years (2007-2013)
7.3 million	13%	14.8 billion (USD)	5.5%	27.9%
Prevalence of HIV: % of population ages 15-49 (2013)	Primary Completion Rate: % of relevant age group (2009-2013)	Youth literacy rate: % population ages 15-24 (2005-2013)	Maternal mortality ratio: Modelled estimate per 100,000 live births (2013)	Under-five mortality rate: Per 1,000 live births (2013)
0.7%	78%	71	220	61

Data Source: World Bank (2015).

PNG's poor development rankings exist despite the country having maintained a high level of national economic growth over the last decade. The distribution of income is therefore an issue for human development within PNG (Government of PNG, 2015). As recognised within the results of a Household Income Expenditure Survey undertaken in 2009/2010, income redistribution in PNG is concentrated within urban areas and limited to the privileged few (Government of PNG, 2015, p. 13). The developmental consequences of this distributional bias become evident in Table 3, which illustrates that the incidence of food poverty and basic needs poverty is higher in rural areas of PNG. The high level of food poverty within rural areas of PNG is particularly notable, as food poverty is generally low within the Pacific Island context as a consequence of subsistence agriculture and customary forms of land tenure, which help protect land use rights and access (Government of PNG, 2015).

Table 3: PNG Poverty Line Projections (based on household income) in 2009–2010

Proportion of the Population below:		
	The Food Poverty Line	The Basic Needs Poverty Line (Lower Poverty Line)
In PNG:	26.5%	36.2%
- Urban PNG	14.4%	24.3%
- Rural PNG	28.5%	38.2%

Data Source: Government of PNG (2015).

It is nevertheless noted that the aggregate data used to establish the development benchmarks in Tables 2 and 3 have the ability to mask differentiated levels of development

across the country. According to the United Nations Human Development Programme (2014), in addition to rural–urban inequality and differences derived from wealth, national development indicators conceal provincial level development variations, as well as differences derived as a result of gender. In terms of gender-based development disparities, within PNG human development measures vary significantly as a result of gender (UNDP, 2014). Papua New Guinean males have been recognised as scoring more highly on virtually every socio-economic wellbeing and empowerment-based UNDP development measure (UNDP, 2014). Relatedly, gender-based violence and discrimination against women is recognised to be widespread in PNG, and exists as a key barrier to development within the country (Pacific Islands Forum Secretariat, 2013).

With respect to provincial disparities in development, outside of the National Capital District, the five Island provinces of PNG (including Manu, East and West New Britain, Bougainville and New Ireland Province) have been recorded as having a higher level of human development than the rest of the country. The United Nations Development Programme has further reported that within this island group, approximately 80 per cent of people over the age of 8 years can read and write (2014, p. 57). Although this literacy rate is lower in comparison to the National Capital District, which has a 90 per cent literacy rate, literacy rates within the Island’s region are nevertheless higher than the three other regions of PNG (as highlighted in Table 4). The cause of this provincial level demographic development disparity is not specifically addressed in development or within literature, but may be related to the earlier European contact with the Island’s region and its earlier integration into the colonial economy in comparison to the Highland’s Region (Connell, 1997). In contrast, the broader urban–rural development divide has been attributed, in part, to the poor state of social services within rural areas (UNDP, 2014). Within the rural environment, where the majority of people live, government social services have been described as being in a state of ‘near abandonment’ (Kepore & Imbun, 2010, p. 231) and ‘semicollapse’ (Dinnen, 2001, p. 2) (see also Imbun, Duarte, & Smith, 2015).

Table 4: Percentage of population aged 8 years and over who can read and write in PNG, by region.

Metro Region	Southern Region	Highlands Region	Momase Region	Island Region
90%	73%	53%	60%	80%

Data Source: UNDP (2014).

More generally, the low level of human development in PNG has also been attributed to the nationwide governance and institutional capacity issues, a lack of institutional accountability

and transparency, endemic law and order issues, a dispersed population and development challenges associated with geographic isolation (Filer, 2012; Koyama, 2004; 2005; Imbun et al 2015, p. 43). The UNDP has further argued that, to date, natural resource-based economic growth in PNG has done little to improve the state of human development for the majority of the population (UNDP, 2014). This, they argue, is a result of the weak linkages established between the extractive sector and the rest of the economy (UNDP, 2014). In turn, the government's failure to deliver effective social services and establish community infrastructure, together with the lack of income generating activities within rural areas, has increased pressure on mining companies to assume a quasi-governmental development role within mining areas (Connell, 1997; Imbun, 2007; Jackson, 1993; Kepore & Imbun, 2010). The following section outlines how the government has provided for and, in instances, formally recognised the development role of mining companies in PNG through legalisation and national policy.

2.2 Legislative Context

Since independence from Australia in 1975, PNG has pursued an economic development strategy premised on maximising extractive sector economic growth, and a human development strategy that assumes extractive sector revenue will be invested to support the achievement of national development goals (Connell 1997; Kirsch 2007). This extractive sector-led human development strategy has subsequently come to underpin PNG's national policy framework, which today is comprised of the national development vision released in 2009 (known as 'Vision 2050'); the 2010–2030 Development Strategic Plan; the 2011–2015 Medium Term Development Plan, and the National Strategy for Responsible and Sustainable Development (2014). While these policy documents support ongoing extractive sector growth as a means to support human development, Vision 2050 nevertheless recognises that an ongoing reliance on natural resources fails to adequately balance the economic, environmental and social pillars of sustainability, and consequently calls for a shift towards a more balanced economy better aligned with the three pillars (Independent State of PNG, 2009). As the means for achieving Vision 2050, the national development strategy further reiterates that the nation's current development pathways are eroding essential environmental assets, but nevertheless concludes that due to the prevalence and immediacy of the nation's goods and services deficit, a medium term environmental, and philosophical, development compromise is required (The Independent State of Papua New Guinea, 2014). In accordance with this strategy, this compromise calls for the continued and immediate establishment of large-scale extractive sector projects as the basis for national development (2014, p. 11).

In light of the nation's ongoing reliance on extractive sector operations as the primary means to promote human development, the effectiveness of extractive sector development intervention is an issue of particular significance within PNG. With respect to large-scale mining operations, the Mining Act (1992) serves as the primary mechanism used to secure development benefits within mining communities in PNG. In accordance with the Mining Act, when a person is recognised as being the owner of an area of customary land that is subject to a mining exploration licence, mining lease or a lease for mining purposes, landownership status in turn secures a right to access compensation and benefit entitlements from mining companies. As legislated by section 3 of the Mining Act, the Development Forum is the institution used to establish and secure the scope of community and benefit sharing agreements between mining companies and affected communities, thus securing both landowner compensation and benefit entitlements, and landowner consent for the mining projects. (For more detail on the scope of these Mining Act provisions, see Appendix 2: The Mining Act (1992)).

Detail of the agreed scope of compensation and benefit entitlements is then captured in the form of a Memorandum of Agreement. Such benefit sharing agreements typically incorporate corporate commitments relating to the provision of preferential treatment and opportunities regarding employment, training, business spin-offs and related business development opportunities for immediate local landowners, followed by people within the affected areas and then people within the host province (Filer, 2012; Power, 1997). Agreements may further encompass corporate commitments to community social mitigation projects, such as the development of social infrastructure including (but not limited to) roading, healthcare, education, cultural heritage management, community skills and capacity development, support for women's groups, and enhancing recreational opportunities within mine-affected areas (Banks, Kuir-Ayius, Kombako & Sagir, 2013; Coumans, 2011; Kemp, Owen & van de Graaff, 2012). In addition to these negotiated benefits, there is also an expectation that local mining lease area landowners will receive at least 20 per cent of royalties collected by the State, and that local landowners will have the opportunity to secure at least a 5 per cent equity share within a resource project.

As stated above, the focus of this research is on establishing the effectiveness of mining company community development programmes and initiatives. Although this research is limited to two discrete case studies within New Ireland Province, PNG, at a national level, the significance of this research is reiterated by the fact that in PNG, approximately 97 per cent of land is held in customary land tenure (Filer, 1997; UNDP, 2014), and 80 to 90 per cent of land is estimated to be held under exploration tenements (Ernst & Young, 2017, p.

61). Accordingly, in line with the policy directives of the State, if any of these exploration tenements evolve into an approved mining lease, the effectiveness of development intervention will have implications for human development across PNG.

To contextualise this research at the local level, the remainder of this chapter provides a background to mining and social life within the case study context.

2.3 Case Study Context

Mining in New Ireland Province, PNG

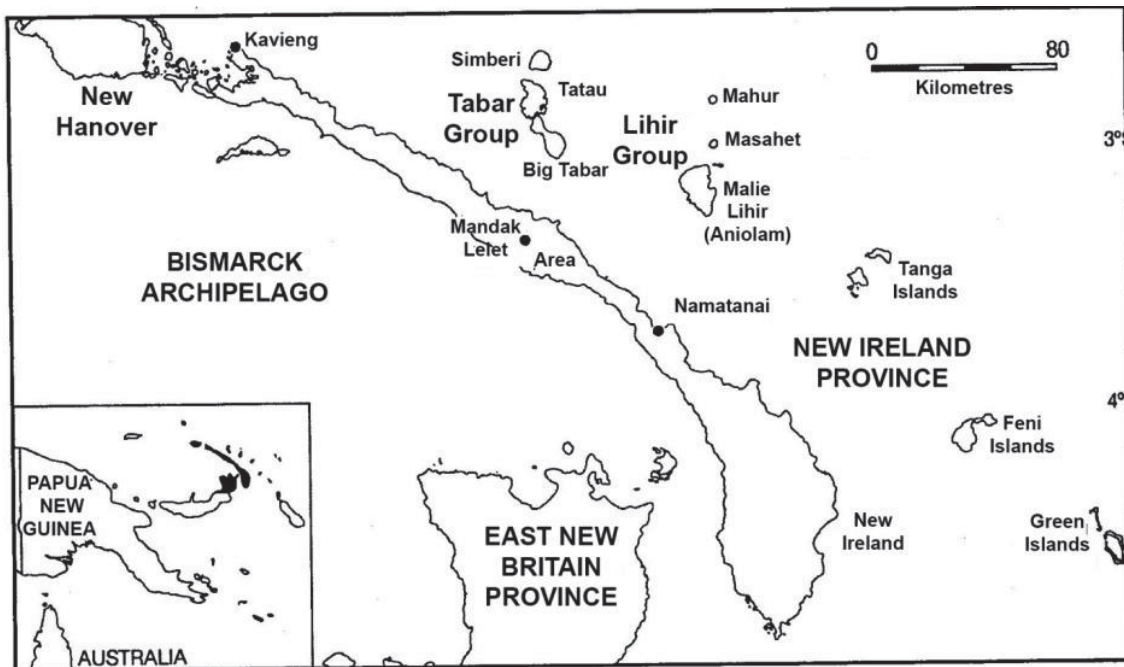
This research was undertaken within the discrete island contexts of Simberi and Lihir, which are separate islands located in New Ireland Province, off the north eastern coast of New Ireland within the Bismarck Archipelago. Lihir (otherwise known as Aniolam) Island, spans 106km² in area and forms a part of the Lihir Group. The Lihir Group is additionally comprised of Masahet, Mahur and Mali islands. Simberi Island is somewhat smaller than Lihir Island, spanning approximately 40km² in area, and is located approximately 60km north-west of the Lihir Group. Simberi forms a part of the Tabar Group, which is additionally comprised of the islands of Big Tabar and Tatau (see the Map 1 below). Both Lihir and Simberi accommodate large-scale open cut gold mines owned respectively by multinational gold mining companies Newcrest Mining Ltd. via their 100 per cent owned subsidiary mining company Lihir Gold Ltd. (LGL) and St Barbara Ltd. via the 100 per cent owned subsidiary mining company Simberi Gold Company Ltd. (SGCL). On Lihir the gold deposit is located within the Luise Caldera, which is a geothermally active area of an extinct volcanic crater. On Simberi, a gold deposit has been located within the eastern area of the island's interior, and mineral exploration remains ongoing. The gold bearing rock ore extracted at each of these mine sites is processed using cyanide leaching, and mining waste is disposed of via the method of deep-sea tailings placement (McKinnon, 2002, p. 12; NSR Environmental Consultants Pty Ltd, 1996). Deep-sea tailings placement involves the deposition of finely ground mine waste, in the form of rock slurry, into the coastal environment (Brewer et al., 2007; Hughes, Shimmield, Black, & Howe, 2015). As a practice it remains controversial due to the scope and uncertainty of its potential environmental impacts (McKinnon, 2002). As reported by Earthwork and Mining Watch Canada:

“Ocean tailings dumping can contaminate marine life with toxic heavy metals and milling chemicals. These metals and chemicals may build up in high concentrations in the marine food chain and thus cause human health effects as well. Those contaminants, as well as the turbidity (murkiness

from suspended particles) and smothering effect (cutting off the supply of water and oxygen) from the tailings cause harm to marine life” (2012, p. 7).

According to Mining Watch (2012), of the 12 most adversely impacted water bodies affected by mining internationally, six are located in PNG, and the mines affecting these water bodies include Lihir and Simberi. See Figure 3 for a timeline of the progression of mining operations from exploration to operation on Lihir and Simberi.

Map 1: New Ireland Province, PNG.



(Source: Adapted from Bainton, 2010).

The Lihir Gold Mine

1969-74:	A geological survey (1969–1974) finds traces of gold in the Lihir Group.
1982:	Kennecott Explorations Australia and joint venture partner Niugini Mining Ltd. are granted an Exploration Licence in 1982. Exploration commences in 1983.
1988:	In 1988 a feasibility study finds the Lihir mine project to be economically unviable. Rio Tinto Zinc (now Rio Tinto) acquires Kennecott Explorations Australia, becoming the Lihir joint venture partner with Niugini Mining Ltd.
1992:	A second feasibility study finds the Lihir mining project to be economically viable.
1995:	A Special Mining Lease with a 40-year term is granted for the Lihir mine on 17 th March 1995. The Integrated Benefits Package (IBP) is signed on 26 th April 1995, encompassing a range of agreements between Lihir Mining Area Landowners Association (LMALA), LMC, the State, and the Nimamar Development Authority (which in 1997 became the Nimamar Local Level Government). Lihirians obtain a 20 per cent share of the overall 2 per cent royalty rate, as well as a 15 per cent equity stake in the mine. Lihir Gold Ltd. (LGL) is incorporated as a PNG company and acquires project ownership from the Lihir Joint Venture. Rio Tinto establishes the Lihir Management Company (LMC) (as a 100 per cent owned subsidiary) to develop and operate the mine on behalf of LGL. Mine construction begins in 1995 and is completed in 1997.
1997:	The Lihir Mine produces its first gold pour on 25 th May 1997.
2005:	Lihir Management Company divests its interests in the Lihir mining project, with LGL securing ownership and responsibility for operating the mine.
2007:	The Integrated Benefits Package is revised in 2007.
2010:	LGL and Newcrest merge operations and LGL becomes a 100 per cent owned subsidiary company of Newcrest Mining Ltd.

The Simberi Gold Mine

1982:	In 1982 Kennecott Explorations Australia, Nord Resources and Niugini Mining formed the Tabar gold exploration Joint Venture on Simberi.
1993:	Nord Australex Nominees (PNG) Pty. Ltd. acquires all the interests in the Tabar Joint Venture.
1996:	The Simberi Mine is found economically viable in a feasibility study completed in 1996. Mining Lease (ML 126) is granted in December 1996. A Compensation Agreement is signed between the Simberi Gold Company Ltd. (SGCL) and the Landowner Leaders of people owning land within the immediate project area. A Memorandum of Agreement (MOA) relating to the Simberi Gold Mining Project is signed on 21 st November 1996 between the State, the New Ireland Interim Provincial Government, the Simberi Gold Company Pty. Ltd., the Simberi Landowners Association and the Tabar Community Government.
1997:	Gold prices fall, resulting in the Simberi mining project being put on hold.
2004:	Simberi operations commence under Allied Gold Limited.
2006:	Mine construction begins and is completed by 2007.
2007:	Mine operations commence in November 2007.
2008:	The first ore is processed in February 2008.
2012:	St Barbara acquires Allied Gold in September 2012, with the Simberi Gold Company becoming 100 per cent owned subsidiary company of St Barbara Mining Ltd.

Figure 3: Mining Timelines²

² For the year ended producing 688,714 ounces of gold (www.newcrest.com) and the Simberi mine was exceeding its target production rate of 100,000 ounces of gold (St Barbara Ltd., 2015b).

Social Life on Lihir and Simberi

Within PNG the multiple and diverse forms of social organisation typically tie back to genealogy, with Papua New Guineans tracing their genealogical descent through lines from a common ancestor, via clans, sub-clans and lineages (Toft, 1997, p. 12). As a background to social life on Lihir and Simberi islands, on both islands lines of generational descent can be traced, theoretically at least, to a common female ancestor. As explained by Bainton, “[a]t the most superficial level, Lihir is a matrilineal society divided into two exogamous moieties which bear the vernacular names *tumbawin-lam* (big people cluster) and *tumbawin-malkok* (small people cluster). *Tumbawin* is a generic term that literally refers to a bunch (*tum*) of bananas (*win*), and is often used to refer to all groups of people – be they moieties, clans, sub-clans, or lineages” (2010, p. 74). In contrast, on Simberi Island the significance and existence of moieties remains unclear to researchers, with the focus instead appearing to be on the clan as the primary functional unit (Warakai, 2011). As recognised by Warakai, the clan is considered the *matabu*, which is a word comprising of “... *mata* and *bu* – *mata* means “eye” or “mouth” and *bu* means root” (2011, p. 11). *Matabu* is made up of *tsek*, which is likened to lineage, with the analogy being that the clan consists of a clutch of families held within a single bunch of betelnut (Warakai, 2011).

Social life on Simberi and Lihir, alongside the areas of Namatanai, Lelet, and Lesu and the neighbouring Tanga Islands, is integrated through commonalities that exist between mortuary rituals, systems of matrilineal descent, traditional systems of trade and exchange, and leadership (Bainton 2010). With respect to traditional forms of leadership within the egalitarian societies of Lihir and Simberi, consistent with most other Papua New Guinean societies, male leaders referred to as big men, traditionally emerged by acquiring forms of wealth and exchange partners in accordance with local cultural practices, and through being skilful orators and warriors (Toft, 1997). Men subsequently gained prestige, status and maximised their authority, by sharing and distributing any acquired wealth in accordance with egalitarian principles, and by extending networks of debt, obligation and reciprocal expectations with others (Burrige, 1975; Toft, 1997). Today, however, a tension exists between the traditional egalitarian practice of distributing wealth and more individualistic behaviours that have been intensified by mining activity. (See Chapter 6 for discussion about the tension between egalitarian unity and the influence of individual autonomy within the research context, and in PNG more broadly).

In terms of mortuary rituals, on both Lihir and Simberi mortuary feasting cycles are primarily inspired by the death or aging of clan members. This reflects the fact that across the New

Ireland Province "... ritual and economic life are focused in some way on the various stages of the lifecycle, particularly the series of feasts designed to 'finish the dead', glossed in the vernacular as the *karat cycle*" (Bainton, 2010, p. 99). These feasting cycles contribute to local *kastom*. According to Lindstrom, *kastom* can be understood as a rhetoric that is "...based on the selected recognition of some, though not all, elements of what anthropologists like to call 'culture'. It is not the same thing as culture, at least in the anthropological sense of this. *Kastom* is conspicuous, obvious, and on the table for people to evaluate and debate..." (2008, p. 165). Literature nevertheless suggests that although *kastom* is integrated across Lihir and Simberi islands, the ritual cycles practised on each island nevertheless remain distinctive.

For example, although the ritual tradition of malangan is widely practised throughout northern and central New Ireland, it does not prominently feature within *kastom* on Lihir (Gunn, 2006). The term 'malangan' can refer both to the ceremonial component of a malangan ritual, as well as to malangan objects (including malangan masks and figures, extending to display platforms and malangan display houses), which are displayed and used throughout the ritual process (Billings & Peterson, 1967; Gunn, 2006). Malangan ceremonies are held to honour dead clan members, the birth of a first born to a couple, and in honour of a daughter who is married outside of Simberi and returns home with her children for the first time (Nord, 1996). The reproduction of a malangan object serves as an effigy that acts to reaffirm a person's connection to a group and territory (Fergie, 1985). When honouring the dead, a malangan object is "... enlivened as "skin" and is ultimately sacrificed both effecting in its death the release of the dead person's soul from its earthly trappings and initiating an exchange with the ancestral realm" (Kuchler, 2006, p. 46).

While *kastom* on Lihir is similarly premised around mortuary rituals involving feasting and forms of ceremonial exchange (Bainton, 2010a), the Lihirian ritual format aligns more with the ritual format practised around Namatanai, and the island groups of Tanga and Anir located to the south-east of Lihir as opposed to the Tabar Group (Gunn, 2006). Over 20 types of feasts exist in Lihirian culture to signify various lifecycle stages and other significant events (Bainton, 2010). Traditionally these rituals have acted to reinforce relations and bonds of social indebtedness and have conferred the elevating forms of male social status (Bainton, 2009). According to Bainton, large-scale mining has resulted in the revitalisation of *kastom* on Lihir (2008b). Bainton contends that mining has led to significant amounts of money being channelled into *kastom* (2008b), contributing to an escalation of the competitive aspects of *kastom* (ibid., 2010a) and the evolution of ceremonial exchange to encompass the exchange of cash and commodities (ibid., 2009).

Mining and Social Change in New Ireland Province

The establishment of large-scale mining operations appears to be fuelling a complex process of social change within the New Ireland Province context. These changes assume varying socio-cultural and economic dimensions, including demographic changes. Since the establishment of mining on Lihir and Simberi, population size has dramatically increased. On Lihir the population increased from approximately 5,500 in 1980 to 18,000 (including migrants and staff) in 2007 (Bainton, 2008b). On Simberi Island the population was estimated to have more than doubled since 2006, increasing from approximately 1000 in 2006 to 2000 in 2011 (Warakai, 2011)³. Alongside these demographic changes, landowners on Simberi Island have suggested that the introduction of mining has resulted in women being pushed aside by men and that women are consequently losing the respect that they once held within society (Warakai, 2011, p. 10). As established on Lihir Island (Bainton, 2010; see also Kemp, Gillespie and Ramsay, 2012), it similarly appears that the system of matrilineal descent on Simberi no longer guarantees the same level of social authority for women.

Large-scale mining has also fuelled dramatic economic changes within the island context. Traditionally both Lihir and Simberi were home to subsistence-based communities orientated around forms of reciprocal and barter exchange systems, embodying 'relations of obligation' and 'reciprocal ties to others' (James, Nadarajah, Haive, & Stead, 2012, p. 220). Subsistence on both islands was traditionally sustained through the practice of shifting cultivation, together with a partially domesticated pig population, and supplemented by hunting and fishing (Fergie, 1985; Filer & Jackson, 1989a). The cash economy is, however, now well entrenched across both islands, with New Ireland Province having been influenced by global economic development imperatives since the time of European colonisation in 1884. Literature nevertheless suggests that prior to mining, locally based forms of economic development initiatives on Lihir and Simberi remained primarily limited to petty trade and copra production (Bainton, 2010; Fergie, 1989)⁴.

The concept of landownership, or being 'a landowner', should also be acknowledged as a factor influencing social change within the New Ireland context. On Lihir and Simberi, being an affected 'landowner' refers to those people who are a member of matrilineal clans that own

³ On the basis that PNG has a population growth rate of 3.15% (based on 2011 Census information) (UNDP, 2014), these population numbers are now anticipated to be somewhat higher.

⁴ Four copra plantations had been established on Simberi Island by the early 1900s (at least partially Chinese owned) and were being worked by indentured labourers (Warakai, 2011). In contrast, on Lihir Island by the 1950s there was only one copra plantation, which was established at Londolovit, now being the site of the mine camp and township (Bainton, 2010).

land included within a tenement lease for exploration and mining purposes. As already noted, recognition of landownership status in turn secures a right to receive compensation and benefit entitlements from mining companies. On Lihir, however, determining landowning status has been complicated by the fact that, prior to mining, property rights were more usufructuary than proprietorial (Macintyre & Foale, 2007) as a consequence of clan boundaries being traditionally "...permeable and 'thick', not clear and incontrovertible" (Bainton 2010, p. 76). Bainton (2010) has subsequently found that a desire for more effective control and isolation of mining compensation and benefit payments has resulted in evolving interpretation of customary land and marine tenure on Lihir. It has also resulted in a shift away from a more theoretical understandings of 'clan ownership' (in the sense of an ownership of knowledge associated with the land) towards a more geographical understanding of land ownership (Filer and Jackson, 1989, cited in Macintyre and Foal, 2007).

It is within this evolving cultural context that Bainton argues that the establishment of mining has resulted in the emergence of more legalistic types of group identity on Lihir (2009, p. 30). This process may best be described as reflecting a process of 'entification' (Ernst, 1999). As argued by Ernst (1999), in PNG resource development is recognised to fuel the "...codification of social organisation that alter pre-existing arrangements" (1999, p. 88). This process, which Ernst termed 'entification', involves "... making "entities" or things from what have been contingent categories" (1999, p. 89). Whilst to date no such hypothesis has been made with respect to Simberi Island, the existence of ongoing disagreements over the sharing of mining derived benefits (Warakai, 2011) suggests determining landownership status in relation to the mining lease area also remains contentious on Simberi Island.

Whilst the establishment of large-scale mining operations appears to be stimulating a process of social change within the New Ireland context, it is also important to acknowledge that for some Lihirians, such social change has been interpreted as being a manifestation of earlier millenarian prophecy (as discussed in relation to Cargo Cults in Chapter 6). As explained by Bainton (2008b), throughout the 1950s and the two decades that followed, Lihirians were discontent over the slow rate of economic progress and marginalisation they experienced under the Australian administration. This Lihirian socioeconomic discontent subsequently led to the establishment of the Tuk Kuvul Association (TKA) (meaning 'stand together and work'⁵) in 1969 (Bainton, 2008b, p. 290), which resembled a 'self-help movement' or 'progress society' (Bainton, 2008b, p. 303). According to Bainton, Lihirian TKA phrases, such as 'Time

⁵ Within the indigenous *Tigak* language emanating from northern New Ireland (Bainton, 2008b).

Change' or 'TKA is a country we have not seen yet', represented "...the genesis of later millenarian concepts expressed in the idea of becoming a 'city' and the return of deceased ancestors" (2008b, p. 308). For Lihirians such prophecies were expressed in terms of the concept of '*a peketon*', which refers to "...waves crashing on the shore, washing flotsam and jetsam onto the beach and then with the receding tide, carrying the debris to other places: as change (cargo) comes to Lihir, it will then emanate outwards from the new centre" (Bainton, 2008b, p. 306-307). Accordingly, when mining operations were finally established on Lihir in the mid 1990s, for some people it signalled the manifestation of the radical social change envisioned within earlier TKA prophecy (Bainton, 2008b).

2.4 Conclusion

As a consequence of the state of human development in PNG, and in light of the nation's ongoing reliance on extractive sector operations as the primary means to promote human development, translating the economic benefits from mineral wealth into widespread improvements in living standards exists as one of the key development challenges for the State (Jacka, 2007; UNDP, 2011). The mandatory nature of landowner compensation and benefit sharing agreements in turn reflects the relative importance of mining company community development intervention as a development mechanism within PNG. As such, this chapter signals the need for effective forms of mining company community development intervention within mining communities, and highlights the significance of this research for the Lihir and Simberi island communities. The following chapter expands this discussion by examining the assumption that mining has the potential to promote development, and more closely explores the relationship between mining and development.

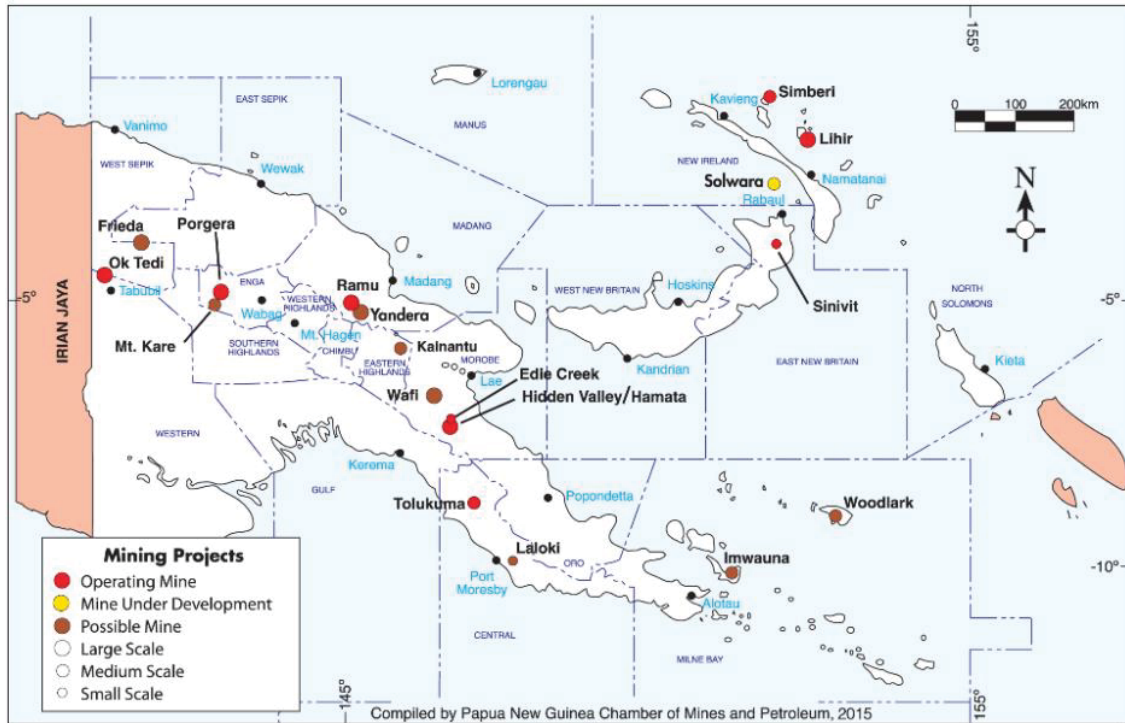
3. Literature Review

The relationship between mining and development in PNG is complex and multifaceted. This chapter therefore draws together an array of international and PNG-based literature to provide a foundation for this research. Following an introduction to mining in PNG, and cautionary critique of the ideology of 'development', I initially interrogate the assumption that mining has the potential to promote development. In doing so, I consider arguments both for and against large-scale mining as a means to promote development. After establishing a strong case for the rejection of theories that dismiss the potential of mining to promote development, I then provide a background to the evolving discourse of sustainable development, and review the uptake of sustainability as discourse by the extractive sector. This discussion leads to recognition of the role of corporate social responsibility (CSR) as a means to promote sustainability by the mining industry. It also points to the legitimacy and relevance of mining community development intervention as a means to promote development within the PNG context.

3.1 Mining in PNG

Located in the southwest Pacific and bounding the Indo-Australian and Pacific tectonic plates, PNG has geology conducive to mineral formation and has been endowed with an abundance of mineral resources. Mining industry activity has in turn, become well established in PNG. Originally established in 1878, in the form of alluvial gold mining on Vanatinai Island in Milne Bay Province, PNG mining operations have subsequently evolved in two key development stages (Connell, 1997). The first stage occurred in the 1920s, when gold was discovered in the Wau and Bulolo valleys in Morobe Province. This phase resulted in the mechanisation of mining, and led to a dramatic increase in both the size and foreign investment interest in national mining operations (Connell, 1997). The second stage began in the 1960s with the discovery of the Bougainville copper deposit and the Ok Tedi copper and gold deposit, which signalled the start of the modern mining era (*ibid.*, p. 123). Today eight large-scale mines operate in PNG. As illustrated on the map below, these mines include: Lihir, Simberi, Ok Tedi, Porgera, Ramu Nickel, Hidden Valley, Sinivit and Tolukuma. In addition to these land-based mines, Solwara 1, the world's first deep-sea mining operation, is currently under construction in the Bismark Sea, and is scheduled to be operational by mid-2018.

Map 2: Current Mines and Prospects in PNG



(Source: PNG Chamber of Mining and Petroleum)

PNG has become one of the world's top 20 copper and gold producers (Ernst and Young, 2017). Today resource extraction and exploitation dominates the country's export-orientated economy, and the export of minerals and crude oil constitutes approximately 80 per cent of total national export value (Ernst and Young, 2017). Advocates of the extractive sector contend that such operations are beneficial for poverty reduction and development, as operational revenue can be used as a catalyst for State-driven development (Weber-Fahr, 2002; World Bank, 2009, 2013). Extractive sector operations are also often advanced as having positive local level development impacts, through generating employment and income-earning opportunities; enhancing host community health and education opportunities; promoting localised wealth creation and business opportunities; leading to technology and skills transfer and infrastructural improvements for host communities; and by benefiting communities through corporate social responsibility, and through community development programmes and projects (Dashwood, 2012; Gamu, Le Billon, & Spiegel, 2015; Jenkins and Yakovleva, 2006; Wise & Shtylla, 2007; World Bank, 2013). This research is interested in the intersection of the latter two deliberate corporate development activities; as such, it is focused on the implementation of localised community development programmes and projects that have been undertaken by mining companies with the intent of benefiting communities. Within

literature this is otherwise known as ‘corporate community development’ (Banks, Scheyvens, McLennan, & Bebbington, 2016).

3.2 The Ideology of Development

Before exploring extractive sector and development-related themes in more detail, for the purposes of this research it is useful to begin by signalling the need for caution when analysing matters of development. Although a case study-based, community-derived appreciation of ‘development’ is established as part of this research (as detailed in Chapter 6), it is important to recognise that the concept of ‘development’ remains open to interpretational bias. When considering this point, it is useful to refer to the right to development as proclaimed within the United Nations Declaration on the Right to Development⁶. ‘Development’ as it is documented here is understood to be a descriptive term that envisions a better life, existing both as an ‘ends’ to social change and a ‘means’ for realising such ends (Goulet, 1995, p. 1). ‘Development’, it states:

“... is a comprehensive economic, social, cultural and political process, which aims at the constant improvement of the well-being of the entire population and of all individuals on the basis of their active, free and meaningful participation in development and in the fair distribution of benefits resulting therefrom...” (UN, 1986, Annex, Paragraph 2).

Development scholars nevertheless recognise that ‘development’, as an ideology, remains ambiguous. Rist (2008) and Escobar (1992) contend that the ideology of development has been used to shape and reinforce a discourse of Eurocentricism that discriminates against alternative frames of thinking (Rist, 2008). This is reiterated by Esteva (2010) and Sachs (2010) who argue that even though universalised economic development approaches have been largely discredited within development literature, the goal of ‘development’ is often used to prioritise the principal of economic growth over alternate development paths. Rist (2008) believes that the power of the term is a result of its ambiguity, being “...its power to seduce, in every sense of the term: to charm, to please, to fascinate, to set dreaming, but also to abuse, to turn away from the truth, to deceive” (2008, p. 1). As argued by both Rist (2008) and Ferguson (1990), a hegemony of Eurocentric forms of development has been established, and therefore in order to challenge it there is a need to recognise that poverty exists within the same frame as wealth. Once this is recognised, they suggest that it then becomes possible to

⁶ As adopted in 1986 by the UN General Assembly in its resolution 41/128.

see that the goal and ideology of 'development' may be used to create socially unjust outcomes. Development literature therefore suggests that varying forms and processes of development have the potential to create dramatically different value-based outcomes. It also becomes apparent that how 'development' is interpreted and understood varies, in part, as a consequence of the institutional, political and social factors that inform its application.

3.3 Background to Mining and Development

The establishment of large-scale mining has historically been defended on the basis that mining provides a source of national wealth, and on the premise that metals are necessary for society's use and consumption (International Council on Mining and Metals (ICMM), 2012). Increasingly, as signalled in Chapter 1, mining is also rationalised as providing an opportunity for the promotion of sustainable development and local level development (ibid.). Large-scale mining operations have the ability to financially benefit local communities through the provision of royalties paid on the mineral resource, compensation paid for land occupied and damaged as a result of mining, and equity participation and joint venture benefits (O'Faircheallaigh, 2002). Yet while some believe that mining can be positive for poverty reduction (International Council on Mining and Metals (ICMM), 2012; Labonne, 2002) and others believe the idea that mining can support poverty reduction to intuitively make sense (Pegg, 2006, p. 376), more neutral and pessimistic opinions about the potential for large-scale mining to support human development are also well established (Bebbington, Hinojosa, Humphreys Bebbington, Burneo, & Warnars, 2008; Gamu, Le Billon, & Spiegel, 2015; S. Kirsch, 2014). For example, as argued by Bebbington et al., the relationship between large-scale mining and development can be described as being 'contentious and ambiguous': "Contentious' because mining has so often delivered adverse social, environmental and economic effects for the many, but significant gains only for the few; 'ambiguous' because of the abiding sense, among local populations as much as development professionals, that *just maybe* mining could contribute much more" (2008, p. 965, italics in original). Accordingly, scepticism, alongside abiding hope, exists with respect to the potential of mining to support development (Wise & Shtylla, 2007).

The potential for large-scale mining activities to generate extensive adverse social and environmental impacts is now well documented (Earthworks & Oxfam America, 2004; World Bank, 2003) and often resides at the core of development concerns. According to Jenkins and Yakovleva, mineral exploration, extraction and related forms of mineral processing, can be considered "...one of the most environmentally and socially disruptive activities undertaken by business" (2006, p. 272). In the case of large-scale open-pit mining, environmental

impacts are typically caused by pit construction and waste rock removal and disposal, and can be further associated with issues of waste rock leaching; ecosystem and habitat destruction; air pollution; water contamination; and soil contamination (Earthworks & Oxfam America, 2004; Gamu et al., 2015; Slack, 2012).

In addition to environmental impacts, large-scale mining often generates a suite of broader social impacts. Such adverse effects include the disproportionate and adverse impact of mining on women within mining communities (Ballard & Banks, 2003; Macdonald & Rowland, 2002; Macintyre, 2002). As recognised by Macdonald & Rowland (2002), although women may be theoretically included within the reach of mining-related development benefits and compensation entitlements, in reality their access to such benefits can be limited as a result of their marginalisation during the process of benefit distribution. Mining has also been connected to human rights violations (Kennedy & Abrash, 2002), with communities being particularly vulnerable to violations when mining companies operate in countries with a weak rule of law and governance, and/or where mining companies are prepared to work with repressive regimes (IIED & WBCSD, 2002). Potentially connected to human rights breaches, mining-derived land alienation and human displacement can increase the vulnerability of communities, impoverishing those displaced by limiting their subsistence viability (Downing, 2002; Pegg, 2006). In terms of cultural impacts, large-scale mining is often located in remote areas in developing countries and can be extremely disruptive to traditional cultures (Rumsey & Weiner, 2004). By generating rapid social change within traditional cultures, mining can dramatically alter the social fabric of these societies and, in turn, cause or increase societal ills such as alcoholism, gambling, abuse, violence, and prostitution (Pegg, 2006; Weber-Fahr, Strongman, Kunanayagam, McMahon, & Sheldon, 2001).

In the case of PNG, researchers have observed dramatic forms of socio-cultural, political and economic change within mining communities, alongside issues of land alienation and livelihood viability (Bainton, 2010; Filer, 1990). Inward migration has also been found to be particularly destructive for mining communities (Banks, Kuir-Ayius, Kombako, & Sagir, 2013). When conceptualising the significance of these socio-economic impacts in PNG, Banks and Ballard (2003) suggest that for many Papua New Guineans, social and economic impacts (positive and negative) are equal to, if not of more of a concern than, physical environmental impacts for affected communities, and that they cannot be divorced from them (see also Banks, 2002). As further discussed, this point becomes important to understanding the relationship between mining-derived development in PNG, as for many Papua New Guineans mining is considered “...the way to gain wealth rapidly and to ensure that dreams of ‘development’ and ‘modernity’ come true” (Filer & Macintyre, 2006, p. 216). This signals the

starting point for this research, as the Papua New Guinean optimism for mining-derived development endures (Connell, 1997; Filer, 1997b; Jacka, 2015, Jackson, 1993; Kepore & Imbun, 2010) even though Papua New Guinean development aspirations have not generally been realised in practice (Dinnen, 2001; UNDP, 2014).

Notwithstanding the Papua New Guinean optimism for mining-derived development, theories of the resource curse, and mining-derived social disintegration, challenge the notion that mining has the potential to promote development. These theories are discussed in turn below.

Resource Curse Theory

In the early 1990s, Auty challenged the claim that extractive sector activities can be good for development. Instead, he theorised that an abundance of natural resources actually creates economic distortions that undermine a country's ability to contribute to development (Auty, 1993; Sachs & Warner, 1995). On this basis, Auty argues that resource abundant economies actually end up worse off than economies without an endowment of natural resources. The related concept of 'Dutch disease' further suggests that poor economic growth in resource-rich economies is due to unsustainable consumption and investment patterns, and boom-type economic growth (Mikesell, 1997). In turn, it is argued that this increases a country's exposure to economic shocks and distortions, and stifles the economic success of other sectors (Auty, 1993; Ross, 1999). The potential for short-term profit seeking objectives brought about by a nation's dependence on natural resources has further been heralded as limiting the potential for development by increasing the likelihood of poor governance and weak institutional quality, fuelling corruption and financial mismanagement, and increasing the chance of violent conflict (Auty, 1993; Ross, 1999).

Although resource curse literature has traditionally assumed an economic focus, more localised environmental, political and cultural manifestations of the resource curse have also been theorised (Filer & Macintyre, 2006; Kirsch, 2014). According to Filer and Macintyre, "[i]n environmental terms, the curse involves a degree of long-term damage done to the natural environment, which outweighs the short-term economic benefits obtained by a minority of the affected population" (2006, pp. 217-218). They also suggest that, in cultural terms, the curse manifests itself in the creation of unrealistic expectations for development connected to extractive sector activity, and that, in political terms, the curse becomes visible in the form of conflict, which occurs as people compete to gain access to the financial benefits flowing from the extractive sector (ibid.). Due to the evolving and open interpretation of the resource curse, whether or not it holds true in particular contexts therefore logically depends on how the

concept of the curse is theorised, on how the concept of 'development' is understood, and on how the symptoms of the resource curse are perceived. It is also noted that in economic terms the resource curse theory is contested (Davis, 1995; Eggert, 2000). As a consequence of evidence of sustained resource-based economic growth emanating from resource-dependent economies such as Botswana and Chile, within mainstream literature it is therefore widely held that the symptoms of the resource curse are not inevitable (UNDP, 2012; 2014).

Social Disintegration Theory

Within the PNG context, Filer's (1990) social disintegration theory additionally challenges the assumption that mining can promote human development. Using the Bougainville rebellion as a case in point, Filer (1990) contends that there is a tendency for mining to generate explosive adverse social impacts within mining communities. Filer (1990) argues that, in contrast to promoting human development, large-scale mining leads to a process of social disintegration, which manifests in the form of: local disputes over land boundary delineation and mine benefit distribution; concerns about social stratification and the inheritance of resource wealth; and social disputes over the succession to leadership. In the case of Bougainville, landowner concerns over the environmental and social impacts from the Panguna copper mine, and disputes about the distribution and adequacy of mining benefits, combined with secessionist sentiments, contributing to the onset of a 10-year civil war (Filer, 1990; Spriggs & May, 1990). Related landowner concerns over mine operations also led to militant attacks on the mine, and its abandonment in 1989 (Connell, 1992; Spriggs & May, 1990). Based on this scenario, Filer has likened large-scale mining in PNG to being a social time bomb, arguing that:

“[M]ines in almost any part of Papua New Guinea will generate the same volatile mixture of grievances and frustrations within the landowning community, and, all other things being equal, blow-outs will occur with steadily increasing frequency and intensity until there is a major detonation of the time bomb after mining operations have continued for approximately fifteen years” (1990, p. 3).

Although large-scale mining operations have generated dramatic forms of social change within PNG, and incidences of violent protest have erupted in other mining communities in PNG (e.g. Porgera, Mount Kare, and Hidden Valley), Filer's theory remains subject to challenge by other commentators on the Bougainville rebellion. For instance, Larmour (1992) has argued that the Bougainville rebellion was exceptional, being fuelled, in part, by a unique Bougainvillean sense of ethno-national identity and class-consciousness. Denoon (2000) and Connell (1997) further suggest that the unique geographically isolated island context was a key factor in

influencing the Bougainville conflict. O’Faircheallaigh also makes the point that environmental damage can have ‘profound political consequences’, and argues that it was a major factor in the Bougainville rebellion (1992, p. 262). Recognising the potential for variances of this theory, Filer himself also acknowledges that a range of political, economic, historical and geographic factors have the ability to impact the application of his social disintegration theory in practice (1990; 1997). He also accepts that at some PNG mine sites, such as at the Ok Tedi mine, environmental damage may better explain the social tensions present in communities (1997). In the Ok Tedi case, the discharge of over one billion tonnes of mine tailings and waste rock into the Ok Tedi and Fly rivers led to extensive environmental damage (Kirsch, 2004, 2006). This consequently had a significant adverse impact on the subsistence viability of those people living downstream of the mine (ibid.). In response, a lawsuit was brought against the mine operators, Broken Hill Proprietary (BHP) Ltd., which was eventually settled out of court in the form of an extensive compensation and development package for those communities located downstream of the mine (Kirsch, 2006).

By connecting the literature discussed above, three key mining development insights emerge. Firstly, it becomes clear that many Papua New Guineans value large-scale mining as a path to development (Connell, 1997; Filer, 1997b; Jacka, 2015, Jackson, 1993, Kepore & Imbun, 2010). Secondly, notwithstanding the fact that mining can generate significant adverse environmental damage, and even though the potential for mining-derived development remains subject to challenge, there is a strong case to reject theories that dismiss outright the potential of mining to promote development. This is because mine operations will vary depending on context and case, and because a variety of local contingencies have the ability to shape and influence mine operations and associated development outcomes in PNG communities (as recognised by Filer, 1997). Thirdly, literature also suggests that for many Papua New Guineans, the potential importance of socio-economic development impacts may, initially at least, be equal to, if not of more of a concern than, environmental impacts for affected communities (Banks and Ballard, 2003). Therefore the potential for and existence of adverse socio-environmental mining impacts will not necessarily preclude mining’s ability to contribute to local level development.

3.4 Sustainable Development and the Extractive Sector

In an attempt to reconcile the *potential* for positive socio-economic development impacts with the *actual* manifestation of adverse socio-environmental impacts within mining communities, voluntary forms of best practice guidance and governance have become vital to the legitimacy of the extractive sector. Such guidance and governance is commonly advanced as supporting

sustainable development. This situation not only reflects the evolution and prominence of sustainable development as a concept, but also illustrates the mining sector's support for sustainability as a discourse. In order to situate this doctoral research in the context of mining industry sustainability narratives, it is necessary to provide a brief background to the concept of sustainable development and to review the role and relevance of sustainability within the extractive sector context. As the 1987 release of the World Commission on Environment and Development report *Our Common Future* marked an important milestone for the concept of sustainable development, it provides a logical starting point for this section of the discussion.

In 1987 the World Commission on Environment and Development produced the influential report *Our Common Future* (WCED, 1988). Within this report, the Commission advocated an integrated approach to sustainable development, which considered development concerns and environmental issues to be 'inexorably linked' (ibid., p. 37). The Commission argued that development could not subsist upon a deteriorating environmental resource base, and that the environment could not be protected when growth ignores the costs of environmental destruction (ibid.). In support of its view, the Commission advanced that sustainable development should be understood as socially, economically and environmentally integrated development, which "... meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1988, p. 8). The connection between development and environment was further reinforced at the UN Conference on Environment and Development in Rio de Janeiro in 1992. However, instead of advancing an equity-centred and ecologically premised understanding of sustainable development, conference proceedings conceptualised sustainable development as a growth orientated concept, directly linking the achievement of sustainable development to the progression of economic growth (UNCED, 1992). As argued by Kirsch, this set aside prior concerns for equity and, beyond small areas that were protected for conservation, it "...opened up the rest of the world to virtually unrestricted development" (2010, p. 90).

Occurring in parallel with an evolving discourse of sustainability, the 1990s was also a period of heightened public scrutiny for the mining industry (Yakovleva, 2005). Facing widespread criticism for causing significant environmental damage, and for the disappointing human development outcomes connected to mining, by the late 1990s the mining industry was in the midst of a reputational crisis that was threatening the viability of the sector (International Council on Mining and Metals (ICMM), 2012). In response to this industry threat, in the late 1990s a small group of prominent mining companies launched the Global Mining Initiative with the aim of reforming the sector. To advance this work, the International Institute for Environment and Development (IIED) was commissioned to undertake the Mining Minerals

and Sustainable Development (MMSD) project (ICMM 2012). This project ran from 2000 to 2002, and was focused on strengthening the industry's contribution to sustainable development (ibid.). The underlying aim of this project was to reposition the sector in terms of performance and public perception. Not long after the commencement of the MMSD project, the World Bank similarly initiated the Extractive Industries Review (EIR) process. Fuelled by international protest over the negative impacts of extractive sector operations, the EIR project was similarly focused on investigating the capacity of extractive sector projects to contribute to sustainable development and poverty reduction, which was the development focus of the World Bank (World Bank, 2003).

As a result of the growth orientated understanding of sustainable development, and the uptake of sustainable development as a discourse by the extractive sector, there has been a plethora of voluntary initiatives and industry codes of practice orientated around interpreting and promoting sustainability within the mining industry context (Campbell, 2012; Hilson & Murck, 2000; and Jenkins & Yakovleva, 2006). For example, the mining industry body of the International Council on Mining & Metals (ICMM)⁷ established a sustainable development framework as a means to promote industry improvement and performance in the mining and metals sector (International Council on Mining and Metals (ICMM), 2012). Financial institutions servicing the extractives sector, such as the International Finance Corporation (IFC) and the Equator Principles financial institutions, also released performance guidelines and standards, and in doing so, created benchmarks for determining acceptable levels of industry performance. Other multi-stakeholder initiatives, such as the Global Reporting Initiative (established 1997), the UN Global Compact (established in 2000), and the Extractive Industries Transparency Initiative (EITI) (established in 2003), have additionally emerged on the premise of sustainability and improving the socio-economic performance of the extractive sector. (See Appendix 3: Mining Sector Good Practice Performance Guidance for a more detailed overview of relevant mining sector performance guidance.)

As a result of the evolving discourse of sustainable development and the uptake of this discourse by the extractive sector, there is now general mainstream acceptance that mining *has the potential* to be good for development. The predominant view is that good governance is essential if the mining industry is to realise its potential to contribute to development (Bebbington et al., 2008; Hilson & Yakovleva, 2007). In terms of the mining industry's

⁷ ICMM formed in 2001, and as an organisation brought together mining and metals companies, national regional mining associations and global commodity associations, for the purpose of enhancing the industry's contribution to sustainable development.

potential to promote development, "...an important current of thought has tended to draw attention to the dysfunctional administrative and political processes within the governments of the country in which activities take place. In this perspective, these 'governance gaps' need to be remedied in order for the sector to better contribute to development and poverty reduction" (Campbell, 2012, p.138). Within this frame of thinking, voluntary extractive sector initiatives that promote industry transparency and accountability (such as the EITI) are intended to advance the quality of national governance and support development in mineral rich countries (Haufler, 2010). An expanding body of literature has also advanced the importance of extractive sector corporate social responsibility (CSR) as a mechanism for sustainability and development (Campbell, 2012).

Before examining the nexus between CSR and development, it is important to acknowledge that there is a strained relationship between mining and sustainability. Although there is now an abundance of guidance orientated around the promotion of sustainable development and sustainability relevant to the extractive sector, because extractive sector activities seek to extract natural resources over a finite period and at the lowest possible financial cost, there remains uncertainty as to what exactly sustainability means in the context of extractive sector activity (Banks, 2013; Hilson & Murck, 2000). Daly (1994) effectively captured the basis of this uncertainty in the theorisation of 'strong' and 'weak' sustainability. According to Daly, sustainability could be understood to be weak when natural capital was considered to be substitutable with forms of man-made capital, and strong when natural capital was considered complementary to but not substitutable with man-made capital. With respect to large-scale mining projects, the mining industry more typically aligns with the concept of weak sustainability, which, in practice, is often focused on weighing up the environmental, economic and social 'trade-offs' of mining activity (Bridger & Luloff, 1999; Mutti, Yakovleva, Vazquez-Brust, & Marco, 2012). From this perspective, the revenue and potential socio-economic development benefits stemming from mining are considered to have the ability to off-set the depletion of finite natural resources (Jenkins & Yakovleva, 2006).

In contrast, Zarsky and Stanley (2013) make the case for a 'net benefits' approach to mining and sustainability. This approach bridges the concepts of strong and weak sustainability, suggesting that mining promotes sustainable development when mining operations maximise human welfare benefits whilst respecting environmental resilience limitations (*ibid.*). More specifically, Zarsky and Stanley contend that in order to promote sustainable development, mining projects must: (1) generate substantial social and economic benefits for local communities; (2) be accountable to local communities; and (3) pose only a low risk to ecosystem resilience (2013, p. 149). As signalled by this approach, social and environmental

corporate accountability narratives are now permeating mining industry sustainability discourse. As recognised by Basu, Hicks, Krivokapic-Skoko, and Sherley:

“... [I]t is becoming increasingly apparent that large mining companies, which will have significant economic, social, political and environmental impacts locally, cannot base their business sustainability on the economics of their operation alone. To be sustainable in the long run, therefore, they will also need to be socially responsible – that is, they will need to demonstrate that the impacts of their operations are not confined to economic betterment alone” (2015, p. 533).

As such, mining companies are now increasingly expected to practise CSR as a means to operationalise sustainability (Basu et al., 2015; Gilberthorpe & Banks, 2012), and to legitimise their operations through maximising mining-derived development benefits for host communities (Yakovleva, 2005).

3.5 Corporate Social Responsibility (CSR)

Despite the widespread recognition of the importance of CSR and extensive literature on the subject, there is no one agreed definition as to what exactly the notion of CSR or socially responsible corporate behaviour refers, nor what it should comprise (Dahlsrud, 2006). Carroll (1994), a renowned scholar in the area of CSR, characterised the field as being eclectic, encompassing different perspectives, having loose boundaries and being wide in breadth. In light of the openness of the concept, Blowfield and Frynas suggest thinking about CSR “...as an umbrella term for a variety of theories and practices, all of which recognize the following: (a) that companies have a responsibility for their impact on society and the natural environment, sometimes beyond legal compliance and the liability of individuals; (b) that companies have a responsibility for the behaviour of others with whom they do business (e.g. within supply chains); and (c) that business needs to manage its relationship with wider society, whether for reasons of commercial viability or to add value to society” (2005, p. 503). While CSR may be conceptualised in differing ways, it is widely accepted that CSR should be voluntary and undertaken at the discretion of business (Dahlsrud, 2006; Sagebien & Whellams, 2010).

Reflecting on the potential interpretive and eclectic spectrum of CSR, Garriga and Melé (2004) contend that there are four dominant forms of CSR theory exercised within the private sector, including instrumental, political, integrative and ethical theories of CSR. These theoretical

vantage points are relevant to framing the arguments of this research and are therefore outlined below:

- *Instrumental CSR theories* assume that the sole purpose of business is wealth creation and therefore that this is the sole responsibility of the private sector (ibid.). In this sense, any forms of CSR adopted by a business are done so instrumentally, for the purpose of making a profit. Economist Milton Friedman is notorious for advocating an instrumental approach to CSR. Friedman asserts “...there is one and only one responsibility of business – to use its resources and engage in activities designed to increase its profits ...” and therefore condones private sector investment at the community level so long as it leads to enhanced corporate profit (Friedman, 1962, p.133, cited in Friedman, 2008, p. 89).
- *Political CSR theories* emphasise the social power of the private sector within society and the associated political responsibilities accepted by companies as a consequence of this power (Garriga & Melé, 2004). As advanced by Davis, “[t]o the extent that businessmen or any other group have social power, the lessons of history suggest that their social responsibility should be equated with it” (1960, p. 71). As such, generally envisioned, political CSR theories anticipate a co-power and responsibility relationship, which connect that attainment of social power via private sector activity to corresponding private sector obligations to behave in a socially responsible manner (Garriga & Melé, 2004).
- *Integrative CSR theories* recognise the reliance of the private sector on society for corporate growth (ibid.). Such theories are focused on responding to and anticipating the social demands of society necessary to legitimise corporate activity and promote the acceptance of the corporation within society (ibid.). They are therefore specific to the context and setting of private sector activities, and the values of society within a particular time and space. While such theories may be diverse, in essence they act to connect issues of corporate social performance to issues of corporate legitimacy.
- *Ethical CSR theories* are premised on ethical principles and are based on the relational notion that there is an ethical obligation of business within society (ibid.). These theories tend to be based on normative values that “...express the right thing to do or the necessity to achieve a good society” (ibid, p. 60). For example, such CSR theories may be framed around the concept of sustainable development, the construct of human rights or the notion of the common good.

Internationally, the burgeoning popularity of varying forms of CSR has been put down to increasing levels of civic awareness of the potentially adverse social and environmental impacts caused by transnational businesses and the consequent need to control these adverse impacts (Utting, 2005). Fox, however, argues that transnational company motives for engaging with CSR are instead more profit-orientated, and include "...new business opportunities through social and environmental innovation, cost savings, staff recruitment and retention, reputational risk management, campaign pressure from NGOs or trade unions, media exposure, regulation and litigation" (2004, p. 36). Thus, within literature on CSR, two prominent ideological views subsequently emerge. One emphasises the potential for CSR to advance win-win company-stakeholder possibilities and to promote best practice and good governance within business, in effect conceptualising business as being a critical part of the poverty-to-development solution. The other more critical view tends to dismiss CSR as window dressing and as being an attempt to legitimise ongoing business-as-usual activities (Utting & Marques, 2010).

This latter perspective includes the view that corporate support for voluntary CSR is a defensive ploy to control the scope of legislated forms of corporate social responsibility (Utting, 2005), acting as a means to reinforce the exploitative basis of capitalism (Rajak, 2011; Ravi Raman, 2010; Sklair, 2010). By acting as a moral dimension to capitalism, critics argue that the good intent of CSR may mitigate the potentially negative perceptions about business but, in reality, do little for people negatively impacted by business activities (Crook, 2008; Frynas, 2005a; Hilson, 2012). As CSR is often voluntary versus mandatory in nature, and due to its potentially confined scope focused on the advancement of business objectives, CSR critics remain wary of the ability of CSR to promote sustainable development (Honke, 2013; Merino & Valor, 2011; Rajak, 2011; Sklair, 2010).

CSR within the Domain of Development

Although scepticism exists regarding the capacity of CSR to add value to society, internationally CSR programmes and initiatives are increasingly entering the development agenda (Sagebien & Whellams, 2010). This is now well entrenched within global level development discourse, which advocates that the private sector has a critical role to play in promoting human development. This is apparent within the 2011 Fourth High Level Forum on Aid Effectiveness in Busan, Korea (High Level Forum on Aid Effectiveness, 2011), the 2012 Rio+ 20 Earth Summit (United Nations, 2012), the International Conference on Financing for Development (United Nations, 2015), and the 2015 Sustainable Development Goals (United Nations General Assembly, 2015). Sagebien and Whellams attribute the recent shift toward

more development-orientated notions of CSR as being as a result of: “(1) the sheer size of corporate global activity, power, and influence that resulted from the liberalization of markets of the 1990s; (2) the magnitude of the global challenges posed by externalities such as climate change, growing poverty, and political instability; (3) the limited ability of states, especially in the developing world, to address the impacts of the former two dynamics; (4) the inclusion by national and international development agencies and development banks of the notion of private sector-led development in their agenda; (5) the activism of civil society in a wired world; and (6) the pressure to curtail corporate abuses abroad being felt by the governments of the firm’s headquarters home states” (2010, pp. 486-487).

As the objectives of development and business may potentially conflict, an inherent tension must nevertheless be acknowledged to underlie the CSR-in-development agenda (Blowfield, 2005a; Frynas, 2005a; Sagebien and Whellams, 2010) . In acknowledgment of this tension, Kemp (2010a) posits that there remains uncertainty as to how exactly the simultaneous agenda of commercial development and human development can effectively be pursued in practice. Furthermore, according to Rajak (2011) the tension between business and development objectives itself reflects the novelty of the CSR-in-development agenda, as through the discourse of CSR corporations can assert their corporate agency to accrue moral authority as agents of development, whilst at the same time advancing corporate power and the logic of the market. In the end, she contends, “... the moral economy of CSR represents, not an opposition to the contemporary world of corporate capitalism, nor a limit to it, but the very mechanism through which corporate power is replenished, extended and fortified” (Rajak, 2011, p. 239). Within literature it is further posited that issues of human rights, social justice, gender, class and equality are typically absent from mainstream CSR development considerations (Hamann & Kapelus, 2004; Jenkins, 2005; Prieto-Carron, Lund-Thomsen, Chan, Muro, & Bhushan, 2006, Utting, 2007; Utting & Marques, 2010). As these matters exist as cross-cutting issues within development, their exclusion from mainstream CSR-in-development narratives suggests that the effectiveness of corporate community development intervention may be limited in its ability to enhance development within communities. As little is known about the development impacts of CSR (Frynas, 2008), this highlights the relevance of this research within the current context.

Recognising the need for further development premised research, Sagabien and Whellams (2010) argue that further evidence-based research is necessary in order to understand the effectiveness of corporate community development intervention as a development tool. Related to this, Banks et al. (2016) argue that there is a need to examine corporate community development initiatives from the perspective of people that they are intended to

benefit, as this may help realise the potential of those corporate activities. Acknowledging the importance of large-scale mining for the achievement of development within PNG, and recognising the need for additional evidence-based research investigating the effectiveness of corporate development intervention from a community perspective, this research is pertinent because although mining companies are increasingly adopting development-orientated CSR rhetoric, the degree to which it is implemented to improve human development remains questionable (Gamu et al., 2015; Slack, 2012).

3.6 Extractive Sector-Led Community Development Intervention

Existing case study research suggests that extractive sector-led development initiatives are shaped by ideological tensions and contextual factors, which can inhibit the effectiveness of development programmes. For example, drawing from mining-orientated case study research in South Africa, Kapelus (2002) critiques mining company development programmes in Richards Bay for being elitist, and as being premised on community participation that is undertaken in a manner to safeguard the interests of the elites, and to reduce corporate costs. In South America, Haalboom (2012) has also found the effectiveness of mining company development intervention to be limited, as it fails to address the adverse impacts stemming from mining operations, and because it neglects to recognise internationally enshrined indigenous rights. More recently within mine affected areas in PNG, Kuir-Ayius (2016) has found that mining company-led healthcare services result in unsustainable services and poor outcomes for communities, where such services lack governmental support. Looking more broadly at research on extractive sector community development programmes, Idemudia (2009b) argues that the corporate community development projects of transnational oil companies operating in Nigeria actually undermine their own potential to support poverty reduction, because they fail to address the issues of voicelessness and powerlessness that exist and which reinforce poverty within communities.

Within academic literature, the failure of corporate community development initiatives often connects back to the matter of 'corporate intent' and the use of community development as a business tool (Idemudia, 2009b; Frynas, 2008; 2005). As argued by Kapelus, corporate intent always underlies the scope and nature of CSR programmes, with companies either engaging with community development programmes due to their corporate and potentially moral obligation to do so, or because such programmes exist as a means of reducing corporate costs. Even though companies may be motivated by the interplay of both logics, according to Kapelus the ideological dominance of either logic can have practical implications in terms of the construction of CSR programmes. He contends that if social responsibility initiatives are

motivated more by a sense of obligation or commitment, then the CSR tools adopted will be more morally discerning (ibid.). However, if companies are driven primarily by pragmatic business and profit-based interests, then "... firms will be interested more in the appearance of social responsibility than actually being socially responsible" (Kapelus, 2002, p. 281). Similarly, Kemp et al. (2015) also argue that within the developing country context, where business case thinking often dominates, corporate development initiatives may appear to support local communities, but may in fact be configured to serve business interests. In such cases, the potential of corporate community development initiatives becomes subservient to business objectives (ibid.).

In the context of the mining industry, which is typically focused on the prediction, prevention and control of corporate risk (Evans, 2004; Franks & Graetz, 2013), the issue of corporate intent consequently emerges as a key ideological challenge to the success of mining company community development intervention. For example, Honk (2013) makes the case that in areas where there is limited presence by the state, mining company community development initiatives are outwardly portrayed as supporting a company's commitment to CSR, but are instead being deployed as community level corporate security apparatus to secure company assets. This situation, she suggests, advances the securitisation of mining through institutionalising forms of clientelist exchange between companies and elite power holders within communities (2013).

Benson and Kirsch (2010) further believe that the issue of corporate intent is apparent in the manner in which mining companies manage the adverse social and environmental impacts of operations within mine affected communities. According to Benson and Kirsch (2010) mining companies limit the extent of engagement subject to the extent of corporate risk such issues pose, which typically results in the application of a three-phase corporate response to social and environmental issues. They argue that phase one is characterised by a stance of disengagement, being a technique used to deny or delegitimise the existence of social and/or environmental externalities. In contrast, phase two involves corporate acknowledgment that a significant issue exists, but in an attempt to limit the cost of externalities for the company, this corporate response tends to be tokenistic, or ameliorative in nature. Finally, in phase three, Benson and Kirsch argue that the company is likened to be entering a stage of crisis management, which is often considered a last resort, as this phase forces the company to engage with its critics and take action to strategically manage and address the issue (ibid.).

The developing country context of extractive sector activities also poses a contextual challenge for the delivery of development (Fox, 2004). As argued by Hilson, "... in developing

countries where there tends to be weak enforcement of legislation and rampant corruption, companies typically find themselves in positions to self-regulate, and the lack of monitoring and consultation often leads to a situation where the company becomes a 'sort of de facto government'" (2012, p. 132). In such instances where extractive sector companies adopt community development functions and assume a quasi-governmental development role, questions subsequently arise regarding the weakened capacity of the state to enforce environmental and social standards (Ballard & Banks, 2003; Garvey & Newell, 2005). As weakened forms of state governance exist in parallel with pressures on developing countries to reduce environmental and social legislated protections in order to secure trade investments, extractive sector investment can be argued to be fuelling the 'race to the bottom' in terms of social and environmental standards (Meisel, 2004, p. 41). The developing country context can therefore be problematic for the implementation of corporate community development, as it has the ability to create an environment wherein extractive sector companies may outwardly commit to the promotion of community level development, but where they can in practice disregard development and CSR principles (Slack, 2012).

Integrating these extractive sector-led development challenges, researchers in PNG have found that mining sector CSR is strongly influenced by reputational benefits for mining companies (Banks et al., 2013). They have also found that CSR mining initiatives that enter the domain of development typically remain on the periphery of people's lives within mine affected communities (Banks et. al. 2013). Where this happens and mining company development initiatives fail to address the adverse social, cultural and environmental impacts of mining, the effectiveness of corporate community development will be limited (Hallboom 2012). Accordingly, mining-focused and development-orientated literature now recognises that mining company community development intervention 'cannot be read in isolation' from the associated mining operation, and that the effectiveness of development intervention therefore needs be conceptualised relative to the impacts of mining (Gilberthorpe and Banks, 2012; Kemp et al., 2015, p. 60). In line with this thinking, when reviewing mining company community development projects, Kemp et al. (2015) argue that the review process "...must demonstrate a grasp of the external context and hold the structure, process, effectiveness, value and consequences of community development in relation to other activities, impacts and systems attached to the mining operation" (2015, p. 60).

The work of Idemudia and Ite is noteworthy in this regard, as it connects the practice of extractive sector development intervention to company actions and impacts. Drawing from the work of Simon, Powers and Gunnemann (1972), Idemudia and Ite assert that CSR obligations include both 'negative injunction duties', being the obligation for companies to avoid and

correct any social damage caused, and 'affirmative duties', being those corporate actions undertaken in the pursuit of social (or moral) good (Idemudia and Ite, 2006, p. 194). Based on research investigating the challenges to corporate–community relations in Nigeria's oil industry, Idemudia and Ite argue that corporate development initiatives require a foundation of negative injunction duties if corporate development intervention is to be meaningful to local communities. Related to this, they argue that the "...abnegation of negative injunction duties by oil companies in the Niger Delta has also meant that affirmative duty obligations such as the provision of socio-economic infrastructures are readily construed by communities as public relation stunts or mere compensation for oil production externalities borne by the host communities" (2008, pp. 204-205). In turn, these researchers argue that corporate development initiatives solely premised on affirmative duties will be perceived as being less meaningful from an affected community perspective.

3.7 Mining Company Community Development Intervention in PNG

Themes of community discontent resonate within literature relevant to mining company community development intervention in PNG. Notwithstanding the Papua New Guinean desire for mining-derived development, existing research suggests that "...there are no examples of large-scale mining projects in PNG that satisfy all of the parties involved, especially to the local people who are hosts to the projects" (Jacka, 2015, p. 230; Filer 1990; Bainton, 2008; Kirsch 2006, Golub 2014). The Bougainville conflict and closure of the Panguna mine, together with the Ok Tedi mine dispute and associated lawsuit, exist as cases of community discontent that have been pivotal to the uptake of mining company community development intervention within PNG. As argued by Imbun (2007; 2008), the Bougainville and Ok Tedi mine episodes have acted as a turning point for mining company CSR, and resulted in mining companies in PNG embracing CSR and adopting "...a more 'human' face in dealing with host communities" (2007, p. 179). Imbun (2008) further claims that in PNG today, mining companies cannot operate large-scale mining projects without contributing tangibly to development and fulfilling their related CSR roles.

An established body of research explores the relationship between mining and development in PNG (e.g. Banks, et al., 2013; Filer; 1990; 1997; Gilberthorpe and Banks, 2012; Golub 2014; Imbun, 2007; 2008; Jacka, 2015; Kepore and Imbun 2010; Kirsch, 2006; Kuir-Ayius, 2016; West, 2006). Associated literature nevertheless varies, and at times reveals contradictions between mining and development-related research findings. For example, based on research undertaken within mining communities located around the Porgera, Ok Tedi and Lihir mine sites, Imbun (2008) claims that despite the environmental impacts of mining, overall mining

company development projects in PNG are being beneficial for mine communities. Further, he argues that mining companies are fulfilling their development obligations to communities, and that, in varying instances, companies are exceeding their development obligations as a means to secure mine operations. In contrast, Gilberthorpe and Banks (2012) posit that there is limited evidence of socio-economic development benefits flowing to mine-affected communities in PNG. In line with this alternate narrative, both Jacka (2015) and Golub (2014) suggest that, based on their extensive research undertaken in Porgera, mining has been a failure in terms of development and that the local community would be better off without the mine. As argued by Jacka, although the "...proceeds from mining development translate into forms of material improvement in the area, the costs of mining in human lives and the degradation of biodiversity far outweigh the benefits of development" (2015, p. 231).

The tension that exists between community expectations of development and the impacts of mining on the environment therefore emerges as a theme that resides at the core of understanding the relationship between mining and development in PNG. Within contemporary literature, both Kirsch (2006) and West (2006) provide insights into understanding this tension. Drawing from research undertaken with the Gimi people of Maimafu Village, based at the Crater Mountain Wildlife Management Area and located in Eastern Highlands Province, West explains that, "[f]or Gimi there is no difference between things and access and social relationships" (2006, p. 309). Therefore, when community conservation efforts and associated relationships with international environmental groups failed to deliver the tangible aspects of development being sought by Gimi, it eventually resulted in the abandonment of conservation as a path to development, and the support for mine exploration as an alternative development path. In research working with the Yonggom people living within mine-impacted areas downstream of the Ok Tedi copper and gold mine, Kirsch similarly emphasises the importance of successful exchange relationships. According to Kirsch, exchange relationships are central to a person's identity in Melanesia, and "...the failure to fulfil exchange obligations, whether by design or default, is experienced as a negative assessment by the person who does not receive his or her due" (2006, p. 80). Therefore, when a Papua New Guinean community enters into an exchange relationship, expecting material development in exchange for the right to mine, if development expectations are not met it creates a source of community discontent (ibid.). As explained by Kirsch, in the absence of material development benefits discontent will escalate if the environmental impacts of mining constrain subsistence lifestyles.

When considering the relative success or failure of mining company community development intervention projects in PNG, the scope of a community's development expectations (Jacka,

2015) and the extent of environmental damage relative to the level of development benefit (Kirsch, 2006) therefore have the ability to impact the perceived success of mining company community development intervention. Literature also suggests that local mining company management aptitudes, the size and life span of the mining project, physical geography, local culture, community need and demand, and local politics, can all act on and influence development intervention outcomes (Imbun, 2008). Jacka (2015) additionally makes the point that the manner in which a community is conceptualised by the mining company has the ability to impact the success of a development initiative. As argued by Jacka, when a company interprets a dynamic and ever-changing social group in PNG as being a fixed entity, it directly increases the chance of project failure (Jacka, 2015, p. 230), as it fails to recognise the complexity of social relationships.

Mining company community development intervention has nevertheless become an essential part of managing mines in PNG (Imbun 2007). This is evident by the measures taken by the state to move beyond voluntary and discretionary forms of mining company development to mandate extractive sector development commitments directed at local communities via Community and Benefit Sharing Agreements (as discussed in Chapter 2). This research is pertinent in this regard, as the extent to which these agreements support local level development largely remains unclear (Filer, 2012; Gilberthorpe and Banks, 2012). As a consequence of this established development role, mining companies are increasingly involved in community development initiatives in mine areas. From a theoretical vantage point, mining company development intervention can thus be observed as bridging instrumental, political, integrative and ethical theories of CSR (as earlier discussed) and embeds the PNG mining industry firmly within the realm of community development.

3.8 Conclusion

In summary, this discussion provides an overview of assumptions that underpin the relationship between mining and development in PNG. It also describes the extractive sector's relationship to sustainable development, and considers the related role of CSR as a means to operationalise sustainability. Through the course of this discussion it becomes evident that although there remains much scepticism about the potential of large-scale mining to promote human development, mining company community development intervention nevertheless remains a legitimate, and often mandatory, development tool within PNG. Whilst literature suggests that the benefits to existing development intervention may be limited, I have argued here that neither existing research, nor pessimistic mining development theories, can preclude the possible design and implementation of future mining company development

initiatives that can be beneficial to communities. This research therefore seeks to build on existing scholarly insights to more comprehensively explore the effectiveness and potential of mining company community development intervention as a means to promote meaningful development within PNG.

4. Development Ethics as a Conceptual Research Lens

This chapter outlines the conceptual research lens that informs the analysis of fieldwork data. Premised on the notion of social justice, this conceptual lens incorporates wellbeing, human rights and inclusive development as its basis. Upon application, this three-part development ethics research lens has the ability to lead to comparative insights into the promotion of social justice through the delivery of mining company development intervention. While such theorising is not founded upon the existence of any one moral truth pertaining to social justice, it does facilitate discussion and debate about the meaningfulness of development intervention from a morally informed (justice-based) development perspective. The chapter begins by providing a background to development ethics and its relevance to research. It also identifies the primary challenge encountered when applying development ethics in research practice. Through the course of this discussion the connectivity between wellbeing, human rights and inclusive development is systematically discussed, with the resulting conceptual lens informing the scope of the research findings documented in Chapters 6, 8, 9 and 10.

4.1 Development Ethics

According to Gasper (2012) development ethics is a discipline, a form of inquiry and a means of analysis that is concerned with the value choices that inform human action undertaken in the name of development. When broadly applied as a research lens, development ethics recognises that all people matter in development. It also looks beyond the matter of utility, or the enhancement of a common good, to realise that the process of development is itself a significant development consideration (Goulet, 1995). Relatedly, it prompts questions about the meaning of development; what good or 'real' development means; what it is that development policy should facilitate; and how the costs and benefits of development should be distributed (Gasper, 2012, p. 120). As such, development ethics provokes the consideration of the ethical or value basis underpinning development practices (ibid.). As applied within this research, development ethics also has the role of:

“[P]roviding analytical tools and ethical clarification to formulate alternative knowledge for development centred on the equal moral worth of all human beings, and shifting development from a charity issue to a matter related to questions of global and social justice” (2010, p. 360).

Development ethics was advanced as a form of academic inquiry by Denis Goulet in the 1970s. Goulet argued that 'antidevelopment' was occurring as a result of human action being undertaken in the name of profit and efficiency, and that this was producing undue sacrifices for human wellbeing (Goulet, 1997, p. 1169). The precepts of Goulet's work stemmed from the work of Louis Lebreton (1897–1966)⁸, a socio-economist who had worked in France in the early 1940s leading a group known as *Economie et Humanisme* (Gasper, 2012). This group deliberated on issues of human wellbeing and human deprivation occurring under the banner of social advancement (Gasper, 2012). Its objective was to develop an economic system that was more humane, being one that enabled people 'to be more' (Gasper, 2012; Goulet, 1997, p. 1167). This line of development theorising was later advanced by Mahbub ul Haq in the 1990s, who established the concept of human development adopted by the United Nations within their Human Development Reports, and more recently by Amartya Sen and Martha Nussbaum through their capabilities approach. Similar to Lebreton, Sen (1999) and Nussbaum (2003) broadly conceptualise issues of wellbeing in terms of the human capacity to do, be and achieve more.

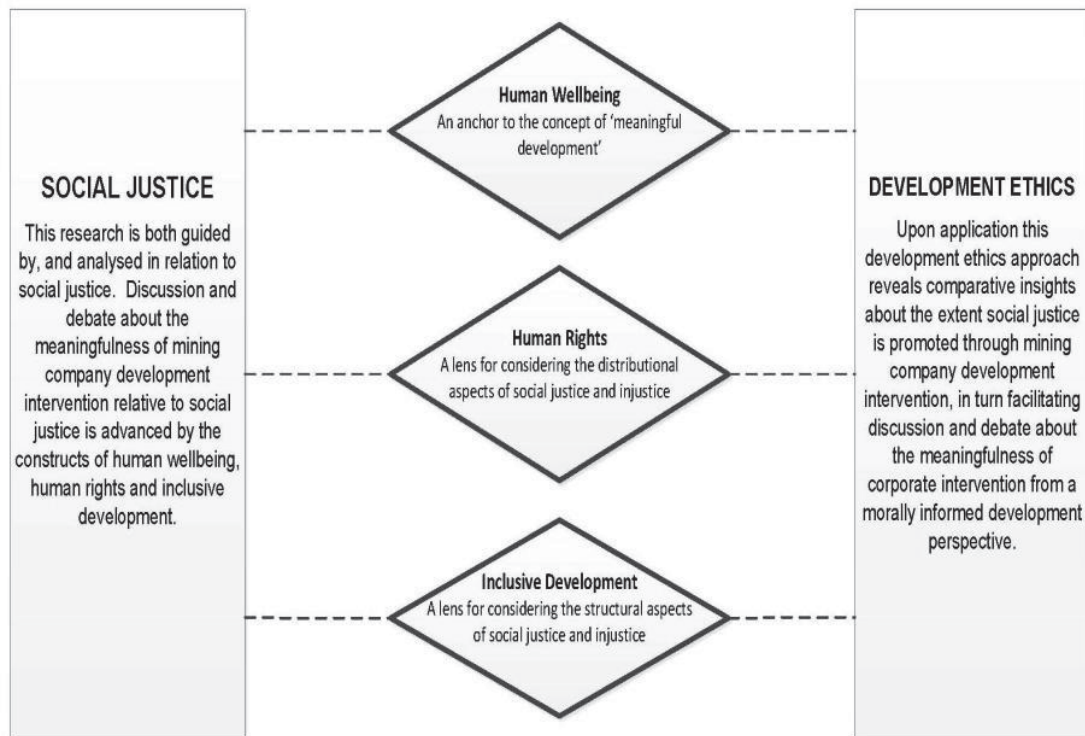
Although approaches in development ethics may vary in design, methodologically they are commonly underpinned by a process that requires: (1) The selection of the relevant development ethic/s to inform analysis guided by an awareness of the ethical dimensions of development issues; (2) The systemisation of ethical development values into an analytical framework, and; (3) The application of this framework to draw conclusions about a development situation (Gasper, 2004; St. Clair, 2010). Yet moving beyond the ethical theorising of development toward the practical implementation of development ethics has been recognised to be a major challenge for the advancement of development ethics in research practice (Crocker, 2008). Choosing which ethical categories to adopt within analysis is a critical part of this practical implementation challenge (ibid.). When it is not feasible for impacted societal groups to themselves select what values are appropriate to use as the basis of development analysis, on what basis should development ethics be selected?

Facing this challenge, Penz, Drydyk and Bose successfully adopt a multi-criteria evaluation approach for considering the complexity of human development concerns associated with displacement (2011, p. 11). In their examination of displacement and development issues, Penz, Drydyk and Bose (2011) draw on human well-being, empowerment, equity, environmental sustainability, human rights, cultural freedom and integrity regarding corruption

⁸ Lebreton drew from the work of European philosophers, John Locke (1632-1704), Jeremy Bentham (1748-1832), John Stuart Mill (1806-1873) and Karl Marx (1818-83).

as core tenets of socially meaningful development. Following suit, within this research I have developed a multi-criteria research lens to consider the effectiveness of mining company development intervention on Simberi and Lihir islands (see Figure 4 for an overview of the conceptual research lens). This research lens is informed by the development values emanating from human wellbeing, human rights and inclusive development as development ethics. The ethic of wellbeing exists as an essential starting point for this research because it mandates the consideration of locally relevant human wellbeing values within research data analysis, and must be drawn on to establish the meaningfulness of development intervention at the local level. Human rights and inclusive development each additionally provide an alternative ethical lens through which to consider the effectiveness of mining company development intervention, which when applied analytically, are informed by established local wellbeing values and development experiences. However, to understand why human rights and inclusive development have been selected as appropriate development values relevant to this research, it is necessary to consider how they connect to the notion of social justice.

Figure 4: Conceptual Research Lens



A Background to Social Justice

Greek philosophers Plato [429–347 BC] and Aristotle [384–322 BC] were key contributors to the philosophical foundations of justice, which is implicitly relevant to the contemporary theorisation of justice (Raphael, 2001). This early philosophical thinking solidified the notion of justice as fairness, and signalled the significance of the distribution of burdens, benefits and responsibilities in connection to issues of justice (Johnston, 2011). The concept of reciprocity related to distributive justice was advanced by Aristotle, who advocated for the ‘principle of desert’ (Johnston, 2011, p. 88). According to Aristotle “...it is just for people to reap rewards from a common enterprise that are proportional in value to the contributions they have made to that enterprise” (Johnston, 2011, p. 71). The concept of distributive justice has since commonly become considered central to contemporary interpretations of social justice (Miller, 1999). As described by Wan, “...distributive justice fundamentally questions how society distributes benefits (freedoms, opportunities, resources) and burdens (risk, costs)” (2014, p. 39). This in turn necessitates the consideration of the distribution of societal goods that affect a person’s life prospects. For distribution to be considered just, Marti (2013) argues that it must mandate the societal acceptance of the distribution of goods and burdens within a society. While Marti does not refute the potential for unequal distribution to be considered just, he argues that for just inequality, it must be a result “...of free decisions and not the outcome of circumstances beyond the control of the person” (2013, p416). Nevertheless, distributional outcomes are often influenced by a range of factors that are beyond the control of a person (Koller, 2013). For example, social status may lead to varying forms of social exclusion that may in turn skew the starting point for distribution (Fraser, 2008; I. M. Young, 1990). For this reason Young (1990) and Fraser (2008) argue that in order to consider the matter of justice related to distribution, it is necessary to understand the structural basis of maldistribution.

As a consequence of the complexity of the concept of justice, definitive theories of justice are often contested. Whilst having a sense of what may be fair or unfair does not necessarily require knowledge of political philosophy, the theoretical interpretations of justice posited by Rawls (1971), Nozick (1974), Sen (1992; 1999) and Nussbaum (2003) have made a substantive contribution to the theorisation of social justice and are therefore worthy of consideration here. In Rawls’ seminal theory of justice (1971), he advocates that for a just society, it is necessary to establish either distributional equality or distributional inequality that advantages society’s worst-off (ibid.). According to Rawls, “... the way in which the major social institutions distribute fundamental rights and duties and determine the division of advantages from social co-operation” is central to issues of justice (1971, p. 7). He posits that

there are three key principles of justice: (1) The liberty principle, that "...each person is entitled to the most extensive set of basic liberties compatible with the same liberty for all"; (2) The fair opportunity principle, that "...any positions of public responsibility or private advantage should be open to all on the basis of fair (not merely formal) equality of opportunity"; and (3) The difference principle, that "...any inequality in the distribution of 'primary goods'⁹ is permissible only in so far as it is to the advantage of the worst-off group in society" (Burchardt & Craig, 2008, p. 4; Rawls, 1971, pp. 302-303). Rawls argues that, for justice, the liberty principle must have priority over the principle of fair opportunity, and the principle of fair opportunity priority over the difference principle (ibid.).

Robert Nozick (1974) similarly postulated a theory of justice premised on distributive grounds. Nozick's 'entitlement theory' is based on the notion of 'justice in holdings', which asserts that there are three necessary components of a 'wholly just' world, including the need for: (1) the personal acquisition of a holding to be in line with the principle of justice as the basis of entitlement; (2) the personal acquisition of a holding to be in line with the principle of justice in relation to the transfer of that holding from a person who was entitled to that holding; and (3) that the entitlement to a holding can only be wholly just if it is secured through the application of (1) and (2) (Nozick, 1974). According to Nozick, a distribution is considered just if it is a result of another form of just distribution, and more broadly, "[t]he complete principle of distributive justice would say simply that a distribution is just if everyone is entitled to the holdings they possess under the distribution" (Nozick, 1974, p. 151).

In contrast to Rawls and Nozick, the capabilities approach advanced by Sen (1992, 1999) and Nussbaum (2003) communicates a less utilitarian approach to justice (Piachaud, 2008). Instead of being resource-orientated, the capabilities approach is concerned about an individual's capability to function and the associated freedom one has to achieve their aspirations in life (Sen, 1999; Nussbaum, 2003). Sen contends that Rawls's theory pertaining to the fair distribution of primary goods fails to account for the fact that the needs of people will vary as a result of varying life circumstances (Wolff, 2008). Thus, as a result of such diverse needs, the equal distribution of primary goods may not result in justice. Related to this he argues that social injustice may be exacerbated by the fact that "[t]wo persons holding the same bundle of primary goods can have very different freedoms to pursue their respective conception of the good (whether or not these conceptions coincide)" (1992, p. 8). Sen therefore advocates that, as opposed to the distribution of primary goods and related

⁹ According to Rawls primary goods are a set of resources which he presumes every person to need, including self-respect, rights, and an income.

resources, an individual's capabilities are more relevant to the promotion of human wellbeing and associated concerns of justice. While Sen does not attempt to define the scope of such capabilities in order to allow for diversity, Nussbaum, in contrast, believes there is a minimum set of capabilities universally relevant to the wellbeing of every person and necessary for justice in any society (Burchardt, 2008; Nussbaum, 2003).¹⁰

Connecting Development Ethics to Social Justice

The purpose of outlining these accounts of justice here is to highlight the varied nature of social justice theory. As rationalised in the remainder of this chapter, it is unnecessary to provide a detailed account or critique of each of these theories of justice here, given that this research adopts a broader approach to the consideration of social justice. For example, where Nozick theorises issues of justice from a historical perspective, Rawls focuses on the anticipated need to promote justice through public policy, Sen concentrates on the immediate role of human agency in relation to justice (Piachaud, 2008) and Nussbaum argues for a set of basic human entitlements for social justice (Nussbaum, 2003). Yet whilst diverse, these theories nevertheless each have a distributional orientation and each implicitly recognise that, for the manifestation of justice, there needs to be fairness pertaining to an open, inclusive process of exchange (Piachaud, 2008). As such, each of these theories signal the relevance of structural equality/inequality related to distributional outcomes. The critical point here for the purposes of this discussion is to recognise that such distributional and structural considerations denote the dual domains of justice (Fraser, 2000, 2003; Hickey, Sen & Bukenya, 2015; Lister, 2008, Young, 1990), and that they are therefore relevant to the conceptual lens of development ethics that has applied to this research.

Within the development ethics research lens applied within this research, human rights and inclusive development have been selected as development ethics, in part because they can respectively provide for related distributional and structural justice considerations within the analysis of mining company development intervention. Specifically, the adoption of human rights as a development ethic facilitates the consideration of the distribution of human rights

¹⁰ These capabilities include the following: (1) To live to the end of a human life of a normal length; (2) To have good health, to be adequately nourished and to have adequate shelter; (3) To move freely from place to place, to be secure against violent assault, to have opportunities for sexual satisfaction and for choice in matters of reproduction; (4) To use the sense to imagine, think and reason – and to do these things in a ‘truly human way’ – including political activities and religious freedom; (5) To experience emotions – love, grief, anger, etc. – unblighted by fear and anxiety; (6) To form a concept of the good and to reflect on one's life; (7) To live with concern for other human beings and be treated as a dignified being whose worth is equal to that of others; (8) To live with concern for and in relation to animals, plants, and the world of nature; (9) To laugh, play and enjoy recreational activities; (10) Politically to participate in choice that govern one's life. Materially, to hold property and to seek employment on an equal basis with others, and to work as a human being' (Nussbaum, 2003, pp. 41-42).

benefit and burdens relevant to mining company development intervention, and the adoption of inclusive development allows for the associated consideration of the structural dimension of justice/injustice related to corporate action.

Putting aside philosophical disputes over theories of justice that have little practical bearing may provide a pragmatic way forward for justice theorising (Wolff, 2008). In line with this thinking, the adoption of a multi-criteria development ethics research lens, which encompasses the dual dimensions of social justice, being the distributional and structural dimensions of justice, can serve as a means for making comparative conclusions about social justice related to mining company development intervention. The ensuing 'comparative approach' for considering matters of social justice (Sen, 2012) uses situational or contextual benchmarks to frame potential alternative courses of action, which can be described as being either more or less just (*ibid.*). While it is beyond the capacity of this approach to arrive at any one definitive assessment or measure of social justice, it can usefully reveal opportunities that exist to enhance justice beyond the status quo. Relevant to this research, the adoption of this conceptual lens may therefore reveal opportunities for mining companies to promote social justice through the delivery of mining company development intervention by revealing alternative courses of corporate action. The remainder of this discussion more comprehensively considers the use of wellbeing, human rights and inclusive development as development ethics informing the analysis of the research data. These three ethics then form the structural foundation for the remainder of this thesis.

4.2 Wellbeing – A Development Ethic

Given that the field of development ethics promotes a line of questioning concerned with the fair distribution of the costs and benefits of development, the nature of development – be it deemed 'good' or 'meaningful' – becomes an anchor to this frame of thinking. In contrast to neo-liberal ideological conceptions of development, which are concerned more about economic growth than fairness or justice, development ethics reframes development to give priority to the wellbeing of those whose realities may be ignored, misread or marginalised within the neoliberal realm of development. As understood by Chambers, the challenge of more ethical forms of development is to include the excluded, to give them a voice and "... to make their reality count" (2004, p. 8). Recognising what wellbeing or the good life might mean to those impacted by the neo-liberal development project can therefore usefully inform what 'real' or 'good' development might actually mean within the local context (Fischer, 2014). This in turn, can create a discursive space for questioning the extent of actions undertaken under the name of 'development' (White, 2014). It also has the ability to reveal the consistencies

(and inconsistencies) between development and understandings of wellbeing, and to make the connections and disconnections between those involved with, and impacted by, development more apparent (Copestake, 2008). This research seeks to do just this, and by adopting wellbeing as a development ethic, the research gives weight to local values of wellbeing and development within the research context, so that the contribution of mining company development intervention can be established.

Only since the 1990s has the notion of 'human wellbeing' gained traction within mainstream development discourse in relation to the Global South. With the publication of the UNDP Human Development Report in the 1990s, which recognised the significance of human wellbeing for development, an increasing recognition of human wellbeing for and as a part of development has been described as being the 'Wellbeing Turn' within development discourse (Deneulin, 2014, p. 39). In 1974 Richard Easterlin released research submitting that there was a need to move away from narrowly understood and economically premised conceptualisations of development, as his study suggested that national GDP increases did not correlate to increased levels of national happiness in the longer term¹¹ (Easterlin et al., 2010, p. 22463). By 2011, the United Nations had recognised the 'pursuit of happiness' to be a fundamental human goal, one which, in addition to wellbeing, sustainable development and poverty eradication, should be promoted through more inclusive and equitable forms of economic growth (United Nations General Assembly, 2011).

At this point it is useful to differentiate 'happiness' from the broader construction of 'wellbeing' that is intended here as a development ethic. Within literature these two perspectives of wellbeing are often traced back to the concepts of hedonia and eudaimonia as held within ancient Greek philosophy (Deci & Ryan, 2008). The hedonistic perspective to wellbeing is more narrowly understood as happiness (or varying degrees of it) and being pleasure derived, and the eudaemonic wellbeing is understood as being more connected to what it means to lead a meaningful and good life, connected to the idea of human flourishing (Copestake, 2008; Deci & Ryan, 2008). As it is referred to here as a development ethic, wellbeing is considered more eudaemonic than hedonistic because it potentially concerns factors that go beyond happiness. But because the construct of 'wellbeing' may mean different things to different people, in practice understandings of wellbeing are likely to encompass dimensions of happiness (in varying forms), whilst at the same time more holistically including other factors

¹¹ In 2010 further research was released by Easterlin reiterating the 'happiness-income paradox', being "... at a point in time both among and within nations, happiness varies directly with income, but over time, happiness does not increase when a country's income increases" (Easterlin, McVey, Switek, Sawangfa, & Zweig, 2010, p. 22463).

broadly understood to contribute to the makings of a good life (Gough, McGregor, & Camfield, 2007). Fischer argues the importance of acknowledging these broader dimensions of wellbeing, and the need to “...take seriously not only material conditions but also people’s desires, aspirations, and imaginations – the hopes, fears, and other subjective factors that drive their engagement with the world” (2014, p. 5). Both the objective elements of wellbeing, being the material, the verifiable and measurable (White, 2016), as well as the intangible, spiritual, psychological, political, socio-cultural and other subjective elements of wellbeing connected to one’s feelings, values and judgements may be important for localised conceptions of wellbeing (Chambers, 1997; Gasper, 2007; White, 2016)¹².

The Significance of Wellbeing

Although matters relating to human wellbeing are often individualised within Western cultures, within alternative cultural and/or indigenous ideologies, wellbeing is commonly understood as being a collective, communal and relational notion (White, 2009, p. 8). For example, the Latin American concept of *buen vivir*, translated as meaning ‘living well’ (Radcliffe, 2012), is based on the relational premise that to live well means to live well in common, “...to live in harmony with each other and their environment...” (Deneulin, 2014, p. 60). In both Ecuador and Bolivia the concept of *buen vivir* has been mobilised through a rights-based movement as a means to replace more materialistic notions of the good life that degrade the environment. An appreciation of how understandings of wellbeing intersect and manifest at the local level can therefore help advance the understanding of wellbeing both as a construct (Jimenez, 2008) and as a development ethic. According to Atkinson et al. (2012), recognising the influence of place is essential to understanding wellbeing, because ‘place’ provides a form and expression for wellbeing: Whether “...enjoying a balance of positive over negative effects, of fulfilling potential and expressing autonomy or of mobilizing a range of material, social and psychological sources, are essentially and necessarily emergent in place” (Atkinson et al., 2012, p. 3). Place of course includes not only space and time, but also social and cultural values, and the social institutions and processes that exist within a place (McGregor, 2007). An appreciation of the local dynamics of place therefore necessarily informs what is meant to lead a good life within a particular place (McGregor, 2007).

Given that a locally embedded understanding of wellbeing may support more culturally grounded interpretations of development, wellbeing as a development ethic may be of use

¹² The relationship between these dimensions may however be complex, in part because wellbeing experiences are dynamic, continually shifting as a result of the relational interplay between political, economic, cultural and social aspects of social life (Gough et. al., 2007).

within the Pacific. Whilst Huffer and Qalo (2004) note that “[n]ot all local ideals and ways of being are appealing or beneficial to contemporary society...”, they argue that nevertheless, these values must “...be allowed to be brought to the fore, discussed, and understood” (Huffer & Qalo, 2004, p. 98). The importance of acknowledging and discussing the extent to which indigenous development concepts can support meaningful forms of development also holds true for the consideration of introduced notions of development. As Huffer and Qalo further argue, so often development principles introduced within the Pacific, such as human rights and good governance, lack meaning because they stand disconnected from established Pacific values relating to social justice and welfare for all (2004). Gegeo nevertheless contends that while introduced concepts and development projects may still be useful, if they are to be locally meaningful they need to be grounded within indigenous autonomy, because the “...symbiotic relationship between the doer and the project means that a project becomes part of one’s life” (1998, p. 308).

As a development ethic, human wellbeing may be taken to signify a field of struggle based on hope (Appadurai, 2013; Jackson, 2011). It can be theorised that ‘hope’, in this respect, is hope “...that life holds more in store for us than less” (Jackson, 2011, p. xi) and hope “... that one may become other or more than one presently is or was fated to be” (Fischer, 2014, p. 6). This is important because without such hope, without aspirations for a better life, there would be no challenge to injustice and no capacity to aspire to a better life (Appadurai, 2013). As argued by Appadurai (2013), as a result of power relations, matters of dignity and issues of inequity affect the availability of tangible and intangible resources that are necessary for human voice to challenge injustice. According to Appadurai, the better off one is in life with respect to these matters, the more voice and capacity one has to aspire to and achieve a better life for themselves. In relation to this research, this theorising reiterates the importance of looking past the more material dimensions of wellbeing and emphasises the need to consider underlying factors that can influence the breadth and achievement of wellbeing and development aspirations facilitated through mining company community development intervention.

4.3 Human Rights – A Development Ethic

Complementing the ethic of wellbeing, human rights are also recognised to be a foundational development ethic relevant to this research. The precept of human rights is a recognised development discourse around which many people can unite (Gasper, 2012). Human rights are central to the promotion of wellbeing (White, 2009), and within communities impacted by mining, an appreciation of the relevance of human rights within the local context can in turn

assist to inform a locally contextualised appreciation of fairness, justice and injustice. Rawls recognises the connection between human rights and justice within his seminal theory of justice, which identifies rights as a form of primary good that is instrumental for achieving personal ends. Rawls states that “...with more of these goods men [sic] can generally be assured of greater success in carrying out their intentions and in advancing their ends...” (Rawls, 1971, p. 92; Sen, 2009). The discourse of human rights thus unfolds within this research as being relevant to the concept of social justice, “...in the context of avoiding injustice by respecting human rights, preventing injustice by protecting human rights, and restoring justice by proactively realizing human rights” (Wettstein, 2009, pp. 290-291).

The United Nations has been effective in grounding the construct of human rights within a contemporary Western discourse through the Universal Declaration of Human Rights¹³ (UDHR) and via the charter of the United Nations, which requires States coming under the Charter to promote “...universal respect for, and observance of, human rights and fundamental freedoms for all without discrimination as to race, sex, language or religion” (United Nations General Assembly, 1948, Article 55(c)). The discourse of human rights emerged in the aftermath of World War Two to formally acknowledge the existence of individual human rights (Ignatieff, 2001) and to condemn human suffering. The Preamble of the UDHR states that the disregard and contempt for individual human rights “...resulted in barbarous acts which have outraged the conscience of mankind, and the advent of a world in which many human beings shall enjoy freedom of speech and belief and freedom from fear and want has been proclaimed as the highest aspiration of the common people...” (1948, Preamble, Paragraph 2). The Declaration identifies a range of economic, cultural, social, political and civil rights to be considered a universal and inalienable ‘standard of achievement for all peoples and all nations’ (Preamble, Paragraph 2). The Preamble deemed these rights to be a necessary “...foundation for global peace, justice and freedom in the world” (Preamble, 1948, Paragraph 1).

Human rights are often premised as being necessary if a person is to live a life with dignity (Donnelly, 2013). According to Donnelly, the claim of human dignity “...is that simply being human makes one worthy or deserving of respect: that there is an inherent worth that demands respect in all of us” (2013, p. 29). They have also been rationalised on the basis of human need. As argued by Ignatieff (2001), human rights matter because they protect people’s agency and consequently empower people, enabling them to help themselves: “We know from historical experiences that when human beings have defensible rights – when their

¹³ Adopted by the United Nations General Assembly on 10th December 1948.

agency as individuals is protected and enhanced – they are less likely to be abused and oppressed. On these grounds, we count the diffusion of human rights instruments as progress...” (Ignatieff, 2001, p. 4). The relevance of human rights for issues of recognition, and in relation to the structural dimension of justice, thus surfaces here in connection to the issue of agency. Agency is described by Fischer as being an individual’s “...power to act and the sense of having control over one’s own destiny” (Fischer, 2014, p. 207) and the capacity for agency is necessary if injustice is to be challenged (Nathan & Xaxa, 2012).

Referring to the moral right of a person (Mandle, 2006), the term ‘human right’ does not necessarily equate to a legislated right or a legally recognised entitlement. This means that human rights may exist independent of any legally founded human right (Feinberg, 1973; Sen, 2009, Wettstein, 2009)¹⁴. As argued by Shue a moral right can in itself be understood to provide a ‘rational basis for a justified demand’ (1996, p. 13). In other words, claiming the existence of human rights may be akin to claiming the existence of a moral entitlement (Donnelly, 2013; Mandle, 2006), a claim which Sen likens to being “...really strong ethical pronouncements as to what *should* be done” (Sen, 2009, p. 357). The related discourse of human rights has been disseminated through a range of “...semi-legal instruments that do not bear the force of law” (Franks & Graetz, 2013, p. 99), otherwise known as ‘soft law’ (Abbott & Snidal, 2000). This has resulted in a set of human rights standards being recognised as being internationally significant whilst being non-binding and unenforceable in the legal sense (Kaltenborn, 2015). Such instruments include, for example, the UDHR, which is considered to provide an authoritative source of human rights norms (NORAD, 2001), the Vienna Declaration of Human Rights (1993), which recognises the interdependent and indivisible nature of human rights, and the Millennium Declaration (2000), which advocates the respect of all internationally recognised human rights and resolves to respect and uphold the UDHR. Alongside the UDHR, the International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (ICESCR) (as adopted by the United Nations General Assembly on 16th December 1966), together with the UDHR, comprise the International Bill of Human Rights¹⁵. With the Covenant’s elaborating on the rights

¹⁴ Human rights can be understood to be a moral construct (Donnelly, 2013) primarily concerned about the establishment of suitable living conditions necessary for the opportunity ‘to lead a minimally good life’ (Fagan, 2012, p. 21). While a connection between morally based and legally premised human rights claims may exist, human rights claims do not require a legal premise in law either for legitimacy or to establish an obligation corresponding to a human rights claim (Wettstein, 2009).

¹⁵ It also includes the International Labour Organisation’s Declaration on the Fundamental Principles and Rights at Work.

specified within the UDHR, the International Bill of Human Rights provides an important normative benchmark for human rights¹⁶.

Yet although the concept of human rights is now widely advocated and endorsed through soft law, the accepted universality of human rights remains controversial (Chandler, 2013; Langlois, 2013). Given the diversity that exists in life across place and time, the notion of cultural relativity is often drawn on to challenge the tenability of human rights as a universal concept (Etzioni, 2012). From the perspective of a cultural relativist, the cultural context should be the primary gauge for moral or ethical claims because this is where the claims are situated and where they are understood (Etzioni, 2012). Cowan, Dembour, and Wilson (2001), however, caution against adopting a philosophical position on human rights that is either solely aligned with either the cultural relativist or the universalist position, due to such binary thinking limiting wider alternative understandings about human rights. Gallhofer, Haslam and van der Walt similarly urge people to move beyond thinking about human rights as relativist, universal terms, or as binaries, and instead advocate for the universal respect of cultural difference, not as a form of uniformity but as the recognition of "...valued particularities attendant upon cultural phenomena" (2011, p. 768).

As argued by Nyamu-Musembi (2005), it becomes possible to develop an understanding of human rights that transcends universalist assumptions when human rights are locally contextualised and informed by locally held values, and grounded in a culturally premised appreciation of entitlements. Wikin (2000) also believes that exploration of different interpretations of human rights across and within varying cultures is important if the value of human rights is to be fully realised. Despite the potential for there to be varying interpretations of human rights, Wikin argues that the construct of human rights remains meaningful just as the constructs of happiness, wellbeing and dignity remain valid even though they are interpreted differently across cultures (ibid.). Consistent with this philosophical thinking, it is considered appropriate to adopt human rights as a development ethic within this analytical framework. In line with the work of Ignatieff (2001), human rights are not considered to constrain human difference, but to allow for the recognition of difference as it exists within different cultures. Within this research the recognition of the potential diversity of human rights has been addressed by giving weight to local perceptions of wellbeing and experiences of development, and by drawing out related place-based

¹⁶ When ratified by a State Party, the Covenant's codifies normative human rights standards into legally binding State obligations under international law (NORAD, 2001).

understandings to reveal a nuanced appreciation of rights held by landowners across Simberi and Lihir islands.

Business and Human Rights

Both the State *duty to protect* human rights and the corporate *responsibility* of businesses *to respect* human rights are today well established (United Nations, 2011). While the State duty to protect human rights is established within international law, the corporate responsibility to respect human rights exists largely as a consequence of business having the capacity to infringe on human rights (Wettstein, 2009) and as a result of the general societal expectation of responsible and accountable business conduct (Ruggie, 2008). The United Nations ‘Guiding Principles on Business and Human Rights’ (hereafter referred to as the Guiding Principles) elaborate on the corporate responsibility to respect human rights¹⁷ and confirm that the respect of human rights is a responsibility for all business enterprises. While the Guiding Principles exist as a form of soft law and thus have no legal standing in terms of international law, they nevertheless remain a widely recognised normative framework that details the human rights expectations for the private sector. Acting as a source of operational guidance for the integration of the respect of human rights within business practice, the Guiding Principles clarify that the responsibility of respect requires that business:

“(a) Avoid causing or contributing to adverse human rights impacts through their own activities, and address such impacts when they occur;

(b) Seek to prevent or mitigate adverse human rights impacts that are directly linked to their operations, products or services by their business relationships, even if they have not contributed to those impacts” (United Nations, 2011, GP 13).

At a minimum, the responsibility of respect stands in relation to all internationally recognised human rights, including the human rights contained within the International Bill of Human Rights and the principles concerning fundamental rights set out in the International Labour Organisation’s Declaration on Fundamental Principles and Rights at Work (United Nations, 2011, GP12). The Guiding Principles further recognise that when human rights are breached there is a need for an effective remedy of such breaches (United Nations, 2011). Since the release of the Guiding Principles in 2011 they have come to be endorsed by numerous

¹⁷ In addition to the State duty of human rights protection and the need of access to be an effective remedy for human rights breaches.

institutions in the form of best practice institutional guidance, such as contained within the OECD Guidelines for Multinational Enterprises (2011), the IFC Performance Standards on Environmental and Social Sustainability (2012a), the Equator Principles (2013) and the Global Compact (2014), with such guidance further reinforcing the relationship between human rights and the private sector and societal expectation of the private sector to do no harm (refer to Appendix 3 for a more detailed overview of relevant good practice mining sector social and environmental guidance).

To do no harm is a widely held principle of justice and necessarily requires refraining from foreseeably harming and avoiding the harms of others (Brock & Moellendorf, 2005). The corporate obligation to do no harm can be more fully explored through consideration of the duty of respect detailed within Guiding Principle 13. The duty of respect requires that companies avoid direct and indirect violations of human rights through "...causing or contributing to adverse human rights impacts" (United Nations, 2011, GP13(a)). As recognised by Wettstein (2012)¹⁸ the duty to do no harm may be a 'passive' or 'active' duty: "A passive duty to respect demands that we abstain from actions in violation of human rights; an active duty to respect requires us to seek to eliminate or reduce dangers or threats within our sphere of influence or responsibility" (Wettstein, 2012, p. 110). Ruggie appears to agree with this stance, stating that "...'doing no harm' is not merely a passive responsibility for firms but may entail positive steps..." (Ruggie, 2008, p. 17). Although mainstream human rights discourse provides only limited acknowledgement that the corporate responsibility of respect may require proactive human rights-based forms of corporate intervention (ibid.), the Guiding Principles do identify that businesses should have a process in place of 'human rights due diligence', acknowledging that direct corporate action may be required to address actual or potential human rights impacts (United Nations, 2011, GP17). As detailed within the Guiding Principles, the process of human rights due diligence should include (but is not limited to) the assessment of potential and actual human rights impacts, and forms of corporate action necessary in response to assessment findings (ibid.). As part of this: "Potential impacts should be addressed through prevention or mitigation, while actual impacts – those that have already occurred – should be a subject for remediation (Principle 22)" (United Nations, 2011, p. 18, GP17).

¹⁸ Wettstein draws from Shue (1996), who argues that all rights give rise to negative and positive obligations. Wettstein uses this to defend the argument that three basic types of duty applicable to each and every right, being "...the duty to avoid depriving, the duty to protect from deprivation, and the duty to aid the deprived" (2009, p. 290).

Human Rights and Mining

In line with the burgeoning diffusion of human rights discourse and related forms of soft law, the mining sector is increasingly engaging with the concept (Boele, Gotzmann, & Kemp, 2011)¹⁹. Since the 1990s human rights abuses and environmental degradation have been increasingly recognised as being an important measure for the assessment and sustainability critique of mining sector activity (Ballard, 2001; Ballard & Banks, 2003): “In the place of earlier strategies such as outright denial of the existence of human rights violations, avoidance of the knowledge of their occurrence, or acquiescence in abuses, corporations have begun to adopt more pro-active policies, often gathered under the rubric of Corporate Social Responsibility” (Ballard, 2001, p. 9). Past human rights allegations and abuse associated with mining activity, and resource exploitation more broadly, has encompassed physical attacks such as torture, rape and extrajudicial killings, forced relocation and resettlement of communities, and the violation of human subsistence rights resulting from environmental contamination and land alienation (Kennedy & Abrash, 2002).

Although human rights are understood to be interdependent and indivisible (The World Conference on Human Rights, 1993), they can be conceptually categorised in terms of (1) Civil and Political Rights, as recognised within the ICCPR (1966a), and (2) Social, Economic and Cultural Rights, as recognised within the ICESCR (1966b). Civil and Political rights can broadly be understood to include a person’s rights to physical security, including freedom from torture and enslavement, protection against arbitrary detention, the right to freedom of expression and religion, and the right to a fair trial (UN General Assembly, 1966a). In contrast, Social, Economic and Cultural Rights are more focused on livelihood considerations, such as having access to basic livelihood resources (i.e. food, water, clothing and shelter) necessary for an adequate standard of living (UN General Assembly, 1966b). Potential mining sector related human rights violations therefore have the ability to span the continuum of Civil and Political, and Social, Economic and Cultural Rights.

For instance, in PNG the Canadian multinational mining company Barrick Gold is facing scrutiny for their alleged involvement in human rights abuses at the Barrick Gold Porgera Joint Venture gold mine in Enga Province (www.miningwatch.ca). In this case it is alleged that Barrick mine security personnel have undertaken a prolonged range of violent attacks against the Porgera community, including extrajudicial killings, torture and acts of gang rape (Human

¹⁹ As apparent, for example, in the ICMM publications: ‘Human Rights in the Mining and Metals Industry: Overview, Management Approaches and Issues’ (May, 2009), and ‘Human Rights in the Mining and Metals Sector: Handling and Resolving Local Concerns and Grievances’ (October, 2009).

Rights Watch, 2011)²⁰. Controversy also exists over the environmental impacts of the (now State owned) Ok Tedi gold and copper mine located in the Star Mountains of Western Province, PNG. The Ok Tedi mine has been disposing of mining waste rock into the Ok Tedi River (a tributary of the Fly River) since the 1980s, contributing to toxic chemical contamination and damage within the riverine environment (The NGO Working Group on the Export Development, 2000; Earthworks & Mining Watch Canada, 2012). This environmental damage has in turn limited the subsistence capacity of downstream communities (Earthworks & Mining Watch Canada, 2012) and has given risen to legal debates over the acceptance of the mine's impacts on community-level subsistence rights, as well as related dispute over the adequacy of community compensation for such impacts (Kirsch, 2007). Beyond the PNG border in West Papua (or Irian Jaya), gross human rights abuses have been further alleged in connection with the Freeport Grasberg copper and gold mine. The Grasberg mine has been associated with reports of massacres, execution-style killings, disappearances, rape and harassment, alongside allegations of forced resettlement, environmental degradation resulting in an unsafe environment, and the loss of land and livelihood without adequate compensation (Ballard, 2001). In 1995 Indonesia's National Commission on Human Rights confirmed that identifiable human rights violations had occurred around the Freeport mine project area (Whitmore, 2006).

In light of the growing public consciousness and scrutiny over corporate complicity in human rights abuse, mining companies now commonly produce public statements declaring their human rights commitments and take part in voluntary multi-stakeholder human rights initiatives, such as the United Nations Global Compact. What remains less evident, however, is the extent to which such corporate commitments and rhetoric translate into positive human rights outcomes. As the corporate human rights agenda is typically framed in the negative, focused on the need to avoid and minimise harm, it has been suggested by Kemp and Vanclay that mining companies may be neglecting the capacity of mining company intervention to enhance human rights and to add 'development benefit' within mining communities (2013, p. 94). As the consideration of human rights has the ability to reveal both the negative and positive²¹ dimensions of mining company development intervention, it reinforces the appropriateness of the adoption of a human rights lens to support the analysis of this research.

²⁰ By September 2015 Barrick Gold had been reported to have provided compensation to 120 rape victims (retrieved on the 09/09/2016 from <http://miningwatch.ca/news/2015/9/29/barrick-gold-urged-come-clean-rape-victims-compensation>).

²¹ João, Vanclay, and den Broeder (2011) argue the importance of recognising positive human rights impacts, considering human rights enhancement to be an opportunity to improve overall project design.

The Value of Human Rights Analysis in Business

As recognised by Kemp and Vanclay (2013), the analysis of human rights within business practice remains emergent despite the established agenda connecting business and human rights. A human rights analysis is an ethical evaluation that draws on internationally recognised human rights standards as a reference point for considering human rights fulfilment (Amartya Sen, 1982; Wettstein, 2009). When undertaken in connection to business, the assessment of human rights may be effective in integrating the consideration of human rights into business decision-making (Franks & Graetz, 2013). The International Bill of Human Rights has methodological relevance to such analysis because it contains “[a]n authoritative list of the core internationally recognized human rights...” (United Nations, 2011, p. 14, GP12). Nevertheless, as recognised by MacNaughton and Hunt (2011), within such analysis, the precise human rights framework adopted should largely be contingent on the subject of the assessment. Affected party participation is important in this regard, as it enables the voices of the stakeholders to be heard (Bakker, Van Den Berg, Düzenli, & Radstaake, 2009; De Beco, 2009) and acts to locally situate an otherwise universal human rights discourse. By doing so, affected party participation can reveal connections between place-based cultural values and international human rights norms. Kemp and Vanclay (2013) observe that when the voices of ‘stakeholders’ become conceptualised as the voices of ‘rights-holders’, it can shift the frame in which impacted groups are considered and recognised by business. While this may bring with it challenges for the private sector, it acts to create a corporate space where quality of life and wellbeing issues for rights-holders can be recognised and considered.

4.4 Inclusive Development – A Development Ethic

The adoption of inclusive development as a development ethic emphasises the significance of the structural dimensions of social justice and injustice. ‘Inclusive development’ as it is referred to here is understood as “...a process that occurs when social and material benefits are equitably distributed across divides within societies, across income groups, genders, ethnicities, regions, religious groups, and others. These benefits necessarily comprise not only economic and material gains but enhanced wellbeing and capabilities as well as social and political empowerment being widely established” (Hickey et al., 2015, p. 5). As a development ethic, inclusive development enables analysis to go beyond the consideration of development intervention from a distributional vantage point achieved via the consideration of human rights, to draw attention to issues of exclusion and adverse inclusion, as well as the consequences of such forms of structural social inequality in terms of recognition, voice and participation, being concepts that are developed below.

As already noted, recognising the structural dimensions of injustice is important because structural inequality can prevent or constrain individual and group access to the material aspects of wellbeing and can limit individual and group choice and action, reinforcing cycles of advantage for some and disadvantage for others (von Braun & Gatzweiler, 2014; Young, 2001). Mosse (2010) argues that injustice and exploitation endure as a result of power relations and that the associated invisibility of power within political systems disadvantages the poorest and exacerbates social inequality. The discourses of exclusion, inclusion and adverse inclusion therefore stand relevant to the ethic of inclusive development. While the dualistic discourse of inclusion and exclusion may be obvious, the fact that inclusion doesn't always align with development is often overlooked (Hickey et al., 2015). "It is now acknowledged that being included on adverse terms in dominant political, economic, and social orders can be disempowering for weaker groups, including women (Jackson 1999) and minority ethnic groups (Masaki 2010), who become incorporated on subordinate terms and may be denied the agency that can come from operating beyond the confines of hegemonic formations" (Hickey et al., p. 6). When included on adverse terms, the livelihoods of those at a structural disadvantage can become constrained by social, economic and/or political elements that engender persistent forms of deprivation (Hickey & Du Toit, 2007).

Exclusion and Recognition

Forms of exclusion have been theorised in two basic ways in development literature: (1) In terms of people being excluded from and/or denied the ability to ascertain rights; and (2) In terms of exclusion from representation and the agency necessary for self-expression (Nathan & Xaxa, 2012, p. 3). Often intertwined, forms of exclusion as well as adverse inclusion assume a structural dimension when they are reinforced through social practices and relationships (Mosse, 2010). They become entrenched through social categories and boundaries established and ingrained within social relations, such as those connected to class privilege or lineage differentiation, and gender norms (ibid.). For example, gender roles and expectations may systematically exclude the ability of women and girls to rights and to 'voice', which is broadly defined here as being an entitlement to have a say, to be listened to and to be heard (Lister, 2008, p. 106). Where this exclusion occurs and human deprivation and poverty is fuelled as a result, issues of powerlessness and inequality emerge as consequence of these gender norms (Hickey & Du Toit, 2007). Therefore, if development is to be wellbeing focused, the consideration of issues related to voice and representation within the process of development is essential (Hickey et al., 2015).

The concept of 'recognition' is consequently relevant in this regard. As advanced by Charles Taylor, recognition²² emphasises the importance of human respect irrespective of social categories and is necessary for the protection of basic rights and the needs of individuals within diverse cultural groups (Taylor, 1992). Fraser, therefore, uses the concept of 'recognition' to signal the ideal reciprocal relationship that potentially exists between members of a social interaction (Fraser, 2000, 2003), and, in parallel, the term 'misrecognition' to signal the inability of an individual or a group to participate as a party with equal status in a social interaction as a result of social subordination. As established by both Young (1990) and Fraser (1997), recognition acts as a counter to non-recognition and misrecognition, being concepts that closely parallel with the discourses of exclusion and adverse forms of inclusion. According to Fraser, forms of misrecognition exist socially as forms of social subordination (2000), with forms of non-recognition being analogous to being rendered invisible within social life (1997, 2003).

The Relevance of Voice to Participation and Agency

As earlier established, issues of exclusion, adverse inclusion, and recognition connect with the relevance of 'voice'. The voice of the non-elite is essential for inclusive development (Goulet, 1995) and is necessary for challenging forms of distributional or structural injustice (Appadurai, 2004). For those living in poverty however, often the resources necessary to give 'voice', "...to express their views and get results skewed to their own welfare in the political debates that surround wealth and welfare in all societies", are lacking (Appadurai, 2004, p. 63). Integrating micro-level voice into more macro-level decision-making is therefore one of the challenges for inclusive development (Goulet, 1995) and Crocker (2010) believes this to be critical for promoting authentic forms of development. As argued by Crocker, authentic development occurs when groups "...become subjects who deliberate, decide, and act in the world rather than being either victims of circumstance or objects of someone else's decisions, the tool of someone else's designs" (Crocker, 2008, p. 339).

Considering the extent to which non-elite members participate and influence forms of social intervention undertaken in the name of development may therefore reveal insights into the meaningfulness of intervention from a non-elite perspective. The spectrum of modes of

²² Taylor elaborates that "...our identity is partly shaped by recognition or its absence, often by the *misrecognition* of others, and so a person or a group of people or society around them mirror back to them a confining or demeaning or contemptible picture of themselves", which can inflict oppression or a 'reduced mode of being' (Taylor, 1992, p. 25).

participation offered by Crocker (2010) is useful in this regard²³. Distinguishing between ‘thinner to thicker’ modes of participation in group decision-making, Crocker identifies seven varied modes of participation, arguing that each participatory mode reflects relative degrees of agency (ibid.). As posited by Crocker, the ‘thicker’ the mode of participation, the more significant the degree of agency and voice held by those participating (ibid.). In essence, the goal of ‘deliberative participation’ (mode seven) aligns with the concept of ‘parity of participation’, which is a term adopted by Fraser to describe the need for a person to be able to interact as a peer and on par with others within society (2003, 2008, p. 16). As argued by Fraser, overcoming injustice requires a parity of participation, which may require “... dismantling institutionalized obstacles that prevent some people participating on a par with others, as full partners in social interaction” (2008, p. 16). Crocker’s seven modes of participation are as follows:

1. **Nominal participation:** This is the weakest form of participation in group decision-making and involves negligible forms of participation (e.g. meeting non-attendance).
2. **Passive participation:** Within this mode non-elites may be able to attend meetings, but only passively receive updates and reports about decisions made without their involvement. Essentially this mode involves the elite informing the non-elite.
3. **Consultative participation:** Here non-elites may provide information to elites, but decision-making power remains vested with the elite.
4. **Petitionary participation:** While elites may have a duty to consider non-elite views within the petitionary mode of participation, decision-making power remains vested with elites.
5. **Participatory implementation:** Within the mode of participatory implementation, non-elite participation and the exercise of non-elite is limited to the implementation of predetermined (elite-ascribed) goals.
6. **Bargaining:** Bargaining involves drawing on non-elitist forms of individual and group agency, to bargain with elite decision makers to advance their goals. Crocker explains that the extent to which non-elites can influence outcomes depends on what they are prepared to give up in exchange for the concessions advanced. Further,

²³ While a variety of participation spectrums exist (e.g. Arnstein; 1969; Wilcox; 1994), Crocker’s participation spectrum has been used here because itself draws on and advances extensive participatory classificatory work (of Agarwal, 2001; Pretty, 1994; Gaventa 1998; and Drydyk, 2005) and assumes a non-elite, human development focus.

within this mode of participation, alliances with external actors can work to enhance the bargaining power of the non-elite. Outcomes, nevertheless, remain ultimately determined by elites.

7. **Deliberative participation:** Involves joint deliberation between elites and non-elites.

When applied as a development ethic, inclusive development has the ability to highlight issues of exclusion and adverse inclusion, drawing attention to the extent to which non-elite groups participate in development and on what terms. The adoption of inclusive development as a development ethic within this research therefore underscores the need to consider the processes that inform mining company development intervention on Lihir and Simberi islands, and the extent to which these processes may impact the distribution of mining benefits and burdens within society. As recognised by Crocker (2010), the matter of human agency becomes implicitly recognised within such considerations, with participation in development processes impacting the manifestation of agency, as well as the perceived value of development from a non-elite perspective.

4.5 Conclusion

The multidimensional development ethics research lens developed here attempts to capture the significance of distributional justice and associated structural dimension of justice relevant to the notion of social justice. It does this by drawing on human rights and inclusive development as ethics pertinent to the meaningfulness of development intervention within mining communities. As applied analytically within this research, these development ethics are informed by the ethic of wellbeing and an appreciation of what wellbeing means to customary landowners across Lihir and Simberi islands. Hence the concepts of wellbeing and development within the case study context are explored in Chapter 6, the reality of development intervention in practice is considered in Chapter 7, and narratives reflecting landowner experiences of development intervention are documented in Chapter 8. This then sets the scene for evaluating human rights and inclusive development related to mining company development intervention in Chapters 9 and 10.

5. Research Methodology

As established in Chapter 2, the discourse on CSR tends to fall within one of two camps. One focuses on the potential of corporate social responsibility to bring about win-win company-stakeholder possibilities wherein business is seen to be part of the poverty-to-development solution, with the other more critical perspective often dismissing CSR as window-dressing in an attempt to legitimise ongoing business-as-usual activities (Utting & Marques, 2010). The following research methodology however pursues a third more nuanced perspective, detailing an empirically and theoretically grounded research approach, which was adopted to investigate and understand the extent to which mining companies promote locally meaningful forms of development within New Ireland, PNG. Within the following discussion I initially provide an overview of the research, explain its methodological orientation, consider the matter of ethical legitimacy and detail the research techniques applied throughout the research process. I then go on to describe some of my experiences ‘in the field’, and reflect on my power and positionality as the researcher. Finally I describe how I actually went about the process of data analysis, breaking it down into a three-stage iterative process.

5.1 Research Overview

Between September 2014 and December 2014 I undertook case study research in the gold mining communities of Simberi Island and Lihir Island in New Ireland Province, PNG (see Map 3). The purpose of this research was to investigate the extent to which respective resident mining companies, St Barbara (SGCL) and Newcrest (LGL), were supporting meaningful community development through forms of corporate development intervention. Within this research I attempt to explore, describe and where possible explain the factors that affect the delivery of meaningful forms of mining company community development intervention on Lihir and Simberi. As stated within Chapter 1, this research evolved as part of a Massey University research project investigating the contested involvement of corporations in community development initiatives in the Pacific and was primarily funded by the Royal Society of New Zealand (Marsden Fund). The premise of the Marsden funded research project was the established need for more evidence on how corporations do community development, and the need to better understand both the potential and risks associated with this. In turn, my primary research question reflects the objectives of the broader research project, which are to:

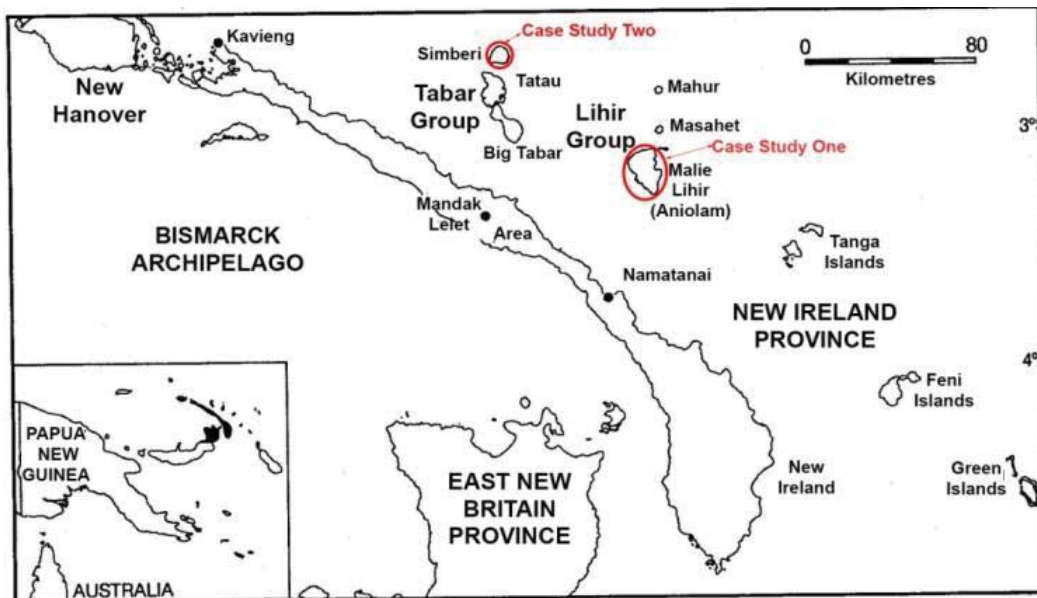
- Document corporate motivations and activities regarding forms of corporate community development intervention;

- Examine the value of these activities from the perspectives of affected communities;
- Work with stakeholders to develop better practices;
- Seek to revolutionise understanding and conceptualisation of the private sector's roles in development.

For clarity, the broader Massey University research project commitments, in turn, limited the scope of this research to exploring the dynamics between operating mining companies and key (primarily local) mining stakeholders. Associated research funding requirements also mandated the adoption of a case study methodology, and required the complexities of corporate community development practice to be considered from a holistic perspective.

Simberi Island and Lihir Island were selected as case study research sites in early 2014. The process of site selection was strongly influenced by security considerations and corporate acceptability of a research presence. From a personal security perspective, as a female foreigner travelling alone in PNG, New Ireland Province was anticipated to be safer than alternative mining communities located within mainland PNG. With this in mind, and as a consequence of my primary PhD supervisor Associate Professor Glenn Banks being able to secure a general initial acceptance of my presence as a researcher on Lihir Island with Newcrest (LGL) and on Simberi Island with St Barbara (SGCL), Simberi and Lihir islands were adopted as preferential case study locations.

Map 3: Case Study Areas



(Source: Adapted from Bainton, 2010).

Methodological Orientation

This research is informed by a critical development perspective and is emancipatory in orientation. Characteristic of emancipatory research, I undertook this research in the hope of generating knowledge for the purpose of social change with a real world effect (Babbie, 2016). This emancipatory research paradigm suggests that meaning (and knowledge) may be socially constructed, as well as being affected by the existence of agency. As argued by Humphries, Mertens and Truman, critical social research is premised on the "... idea that knowledge is structured by existing sets of social relations, and it aims to challenge prevailing oppressive social structures" (2000, pp. 4-5). However, as noted by Long (2001), because different development and social outcomes may result within the same structural contexts, issues of agency must also be recognised as having ramifications for social outcomes. Through the course of this research it became apparent that social relations between mining companies and communities are relevant to the manifestation of agency, which impacts development intervention²⁴; but also that expressions of personal and group agency can interface to change social relationships, which in turn shapes development outcomes.

As this research is evaluative in nature, it must be recognised to be political in orientation (Ellingson, 2013; O'Leary, 2010). Due to my critical emancipatory research lens, and as a consequence of the high financial stakes of mining company development intervention for select stakeholders, I often limited landowner participation to the exchange of confidential and one to one dialogue during fieldwork. While initially I would have preferred a more participatory and collaborative research approach that promoted collective forms of community reflection, due to the local power and politics at play, such an approach would have likely resulted in elitist participation and bias, and potentially exposed vulnerable research participants to risk of politically motivated backlash. By opting for confidential forms of participatory engagement, the research methodology allowed for non-elite landowner voices to emerge and be heard, and created a safer environment for non-elite landowner participation.

As the analytical framework underpinning this research is premised on locally held landowner development and wellbeing values, it can be described as being community-based as opposed to expert-based. Further, because the research methodology interlinks "...experience, theorizing and policy making stages in the processes of constructing knowledge for development", it can also be described as being 'pragmatic' (Gasper, 2012, p.

²⁴ A relational dynamic also recognised by Long (2001).

123; St. Clair, 2010, p. 367). The resulting pragmatic community-based methodology is outlined diagrammatically below (see Figure 5).

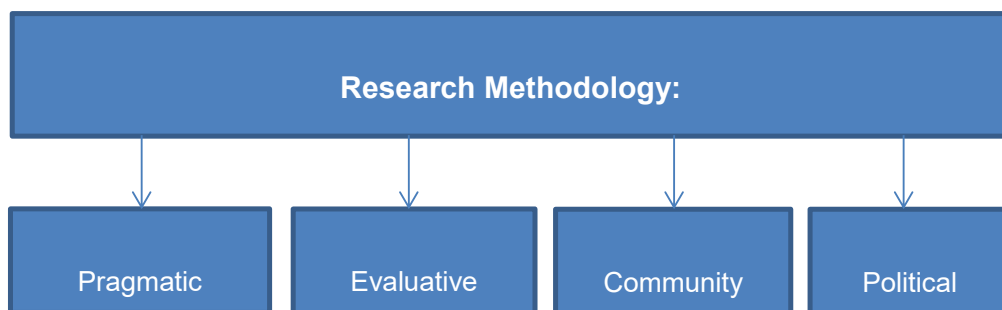


Figure 5: Key components of the research methodology.

Ethical Legitimacy

Throughout the research process I remained conscious of my presumptive 'legitimacy' to undertake this research. Smith argues that the word 'research' is itself probably "...one of the dirtiest words in the indigenous worlds' vocabulary", and that non-indigenous Pacific research is neocolonialising by nature because it marginalises both indigenous knowledge and indigenous voices (2004; 2012, p. 1). Conscious of my non-indigenous background and the privileged westernised lens through which (I must assume) I see the world, prior to entering the field I found myself confronted by the issue of research and researcher legitimacy. Did I actually have the right to undertake the research (Cannella & Manuelito, 2008)? And beyond this, could I actually authentically capture the true voice of rural Papua New Guineans without reinforcing past patterns of colonialism and domination? I approached the research mindful of these issues and on the understanding that ethical research can occur outside of the researcher's own culture and social context, provided that I was respectful to the diverse values and voices of research participants, and remained critically aware of my own voice and influence throughout the research process (Banks & Scheyvens, 2014; England, 1994).

Prior to commencing fieldwork I received ethical clearance from Massey University. This involved the completion of an in-house Institute of Development Studies ethics review process, and the evaluation of my research proposal as 'low risk'²⁵ as established via a peer review process procedurally accepted by the Massey University Human Ethics Committee. I also received approval to undertake the research from the National Research Institute in Port Moresby, and secured the appropriate Research Visa. When I was undertaking my fieldwork I

²⁵ Low risk categorisation confirmation letter received on the 4th April 2014.

maintained a commitment to do no harm, to only proceed with direct forms of research enquiry when based on voluntary participation, and to respect all research participants through a commitment to privacy, confidentiality and anonymity. As a result, after being informed of the nature of the research and of research participant rights to withdraw from the research at any time, none did. All of the research participants interviewed thus engaged within this research willingly, and verbally consented to the consideration of their views here. Further, all research participant requests for discretion relating to identification have been respected, and even where landowners did not request anonymity, landowner identities have been concealed due the potential risks of speaking out about mining company development intervention in the highly political nature of the research environment.

5.2 Research Techniques and Participants

Exploring both corporate and community practices and perspectives, this research seeks to recognise varying subjectivities and truths that exist in relation to mining company development intervention on Simberi and Lihir islands. The adoption of a qualitative case study methodology was appropriate in this regard because of its ability to connect the researcher to the real world within which people live (Yin, 2009, 2014). Instead of assuming simplicity and uniformity a qualitative case study approach anticipates a world of complexity and related to this, the existence of plurality (Orum, Feagin, & Sjoberg, 1991; Yin, 2014). As defined by Orum et. al., a case study can broadly be understood to constitute "...an in-depth multi-faceted investigation, using qualitative research methods, of a single social phenomenon. The study is conducted in great detail and often relies on the use of several data sources" (1991, p. 2). The key benefits of a case study methodology are suggested to include:

1. "It permits the grounding of observation and concepts about social action and social structures in natural settings studied at close hand.
2. It provides information from a number of sources and over a period of time, thus permitting a more holistic study of complex social networks and of complexes of social action and social meanings.
3. It can furnish the dimensions of time and history to the study of social life, thereby enabling the investigator to examine continuity and change in lifework patterns.
4. It encourages and facilitates, in practice, theoretical innovation and generalization" (ibid., 1991, pp. 6-7).

Varying qualitative research inputs have been drawn from within this research as a means to uncover the richness and nuances that exist to shape varying forms of mining company development intervention. A variety of research participant groups (outlined in Table 5) contributed to the research.

Table 5: Research Participant Groups

Research Participant Groups	Sub-Groups and Representatives
Customary land owners	Lease area landowners including relocated landowners, non-lease area landowners, and landowner representatives.
Mining company staff	Current and former mine employees.
Local Authorities	Local Level Government representatives and employees.
Potentially vulnerable groups	Women and village elders.
Local institutions	Representatives of educational institutions, health centres and hospitals.
Local organisations	Church representatives, Landowner Organisation representatives and employees.
Government	Mineral Resource Authority (MRA) representation.

Although care has been taken to protect the anonymity and confidentiality of research participants, Appendix 4 further provides a set of research participant identifiers that have been applied to differentiate the scope of research participant contributions to this research. As applied throughout the remainder of this thesis, *S* or *L*, respectively, refers to either the Simberi Island or Lihir Island case study, followed by a unique research participant number.

This research combines the use of ethnographic research techniques, such as field observations and unstructured interviews facilitated through storytelling and remembering, together with the use of semi-structured interviews and textual research techniques to investigate the dynamics of mining company development intervention. These research techniques are discussed in more detail below. Yin (2009) recognises that the use of multiple sources of evidence within case study research is necessary in order to capture the diverse variables of interest within any given situation.

- **Field Observations:** When residing within the village environment, daily living often involved sharing meals with research participants and just sitting around and talking with residents from within my local hamlet. When more actively ‘researching’, I would

often spend long periods of time walking from village to village with my research assistant, or sitting on a bus or on the back of a truck commuting to more distant villages or to the community relations office located close to each respective mine site. This field work experience provided opportunities for observation not equivalent to fully participating in village life²⁶, but being a type of ‘participant’ nonetheless. I recall the words of a Lihirian woman whose response to learning that I was staying within the nearby village of Sianios for two months was: “I’m glad you are here and I think you are in the right place, in the right place because now you will know how hard life is for us... Know what it is like to have rats in your food, to have no light at night and no cold drink when you are hot”.

- **Semi-Structured Interviews:** The use of interviews allowed me to gain a broader insight into the people’s perspectives and the subjective experiences of their lives (Chase, 2013; Perakyla & Ruusuvuori, 2013). I often drew on chain-referral (or snowballing) to establish potential interviewees. Although the process of chain-referral runs the risk of being selective as a population sampling technique (Overton & van Diermen, 2014), as I did not limit the scope of potential interviewee selection relative to any predetermined criterion it helped to mitigate and reduce the risk of selective representation within the interview process. This chain-referral technique was particularly useful for establishing research contacts with mining lease area landowners, which was necessary when I was residing in Sianios Village on Lihir Island, as it was some distance away from the mining lease area environment.

The nature of the interview adopted varied as appropriate to the context. Semi-structured interviews were more often adopted as they provided a balance between formality and informality and thus provided contextual flexibility (May, 2001). Semi-structured interviews undertaken with customary landowners were typically framed around a series of interview questions that attempted to establish the core values underlying the concepts of wellbeing and development, through which I explored landowner experiences of development intervention. In contrast, interviews with mining company staff, local government representatives, and on occasion more elite landowning representatives, centred around developing an understanding of the practice and governance of development intervention, and the identification of the institutional challenges that were a part of this.

²⁶ Consequently I avoid using the term ‘participant observation’.

- **Unstructured Interviews:** Unstructured interviews generally assumed the form of open-ended conversations and were loosely structured around the lived experiences of mining company intervention and the concept of 'development'. These interviews were facilitated through storytelling and remembering. As recognised by Bishop, the process of "...storytelling allows the research participants to select, recollect and reflect on stories within their own cultural context and language rather than in the cultural context and language chosen by the researcher. In this sense, stories are able to address the potential for hegemony by the researcher" (Bishop, 1996, p. 24). The use of unstructured interviews therefore helped to stimulate informative conversation (May, 2001), and listening to (and where possible recording) research participants explain stories related to mining company development intervention helped to draw out both personalised voices and key wellbeing and development narratives.
- **Informal Focus Groups:** Focus groups are described by O'Leary as being more a discussion as opposed to a question answer interview process. According to May (2001) the benefit of using focus groups within research is that it allows participants to discuss the subject together within their own frame of reference, allowing the researcher to explore the group dynamics relevant to the topic being investigated. Several informal focus groups were undertaken as part of this research early on during my fieldwork within the village setting on Lihir Island. I loosely structured these focus groups around establishing socially situated perceptions of mining company community development. The focus groups were not organised ahead of time and involved me, somewhat opportunistically, engaging with groups that had gathered for other reasons (e.g. at a village meeting or church group meeting). Although development themes did emerge and were reinforced through the course of these focus groups, due to the language barrier, which at times constrained my ability to understand intergroup discussion, and due to the political nature of the research, which I believe constrained the focus group response, I quickly established that one to one interviews were more effective, and indeed more contextually appropriate as a research technique for establishing the diversity of group views and values related to mining company development intervention in this environment.
- **Document Analysis:** Throughout the research process I used document analysis to advance my understanding of the formal corporate and government development obligations and responsibilities for community level development intervention. While research participant interviews were often rich in content, document analysis provided a means to crosscheck and contextualise interview based empirical evidence.

Documents were selected on the basis of their relevance to past and present forms of mining company development intervention and included: corporate communication records, corporate reports, website content, Community and Benefit Sharing Agreements, Compensation Agreements, and Memorandi of Agreement. Document analysis was broadly used to interrogate and analyse these texts relative to what they each said and the themes that could be implicitly found within them (O'Leary, 2014).



Photo 1: A snapshot taken in Kosmayun Village, Lihir Island (September 2014).

5.3 In the Field

My first visit to PNG occurred in November 2013 when I visited²⁷ the Lihir Island in the hope of establishing local landowner contacts and organising a place to stay during my fieldwork placement the following year. This trip proved successful and approximately 10 months later, after completing a literature review on the subject of corporate community development, undertaking a series of *Tok Pisin* language lessons and drawing from literature to help build a deeper cultural understanding about life in New Ireland Province, I returned to Lihir Island.

²⁷ Accompanied my PhD Supervisor Glenn Banks and Massey University Post-Doctoral Scholar (at that time) Sharon McLennan.

For seven of the eight weeks which I spent on Lihir Island I resided in Sianios Village, a small community located outside the mining lease area on the south-western coast of the Island. Initial communications were established within Sianios Village landowners via connections between mine community relations staff and my PhD Supervisor, Glenn Banks.

It would be fair to say that, at times, I found the fieldwork process gruelling. Whilst living in Sianios Village I found it easy to lose my sense of time, although I tried desperately to hold onto it. I was also lonely, although I was typically more engaged with people on a daily basis than I would have otherwise been if I had been in New Zealand. I often felt ignorant and ill-informed, and frustrated by the limits of my knowledge and language. During my time residing in Sianios Village I would regularly travel into Londolovit Township in order to purchase food, and where I would regularly attempt to establish contact with members of the Lihir Mining Area Landowners Association (LMALA), and make contact with lease area landowners, Newcrest's community relations staff, Local Level Government representatives and staff. This trip would generally take between three to five hours return, depending on the available transport and the number of stops made along the way. Although it was time consuming and at times seemed arduous, the commute proved to be an excellent opportunity to meet people and to establish a broader range of research contacts. In my final week on the Island I was accommodated by Newcrest within the mine camp and based myself in the company's community relations office in Londolovit Township during the day. My focus within this final week was to follow up on a range of research inputs that had evolved from my fieldwork. In total I completed 44 interviews whilst on Lihir Island.

I arrived on Simberi Island in early November 2014. Assisted by St Barbara (SGCL), for my initial two weeks on the Island I resided in mining staff accommodation at the Pigiput camp, and based myself in the mine's community relations office during the day. Whilst in camp I focused on learning about the scope of the community development projects being undertaken by the company and met numerous Island residents through the comings and goings of the very public community relations office. Through a course of referrals provided by mine community relations Staff, I secured a place to stay in Simberi Village, a non-lease area community located on the south-western coast of Simberi Island, approximately 40 minutes' drive from the Pigiput Camp. Whilst residing within the village I visited a range of mining lease and non-lease communities around the Island. Here I undertook a total of 26 one to one interviews and in addition, had a vast number of conversations about my research with local residents. Just as on Lihir Island, whilst staying in the village I maintained regular contact with community relations staff and found that the commute to and from the community relations office (via public truck transport facilitated by SGCL) was a great way to meet people

and to establish research contacts. After spending one month living in the village, I then returned to the mine camp and the community relations office, completing my final two weeks on the Island following up and finalising my fieldwork.

As detailed above, while undertaking research on Lihir and Simberi islands, I predominately resided within the village setting, and was hosted, respectively, by two communities located outside the mining lease area. Due to the extremely limited and infrequent availability of transport on each Island, it resulted in a higher degree of research engagement with landowners living outside the mining lease area and who were accessible within about four hours walking distance from my accommodation. Relatedly, as I often used semi-structured interviews framed around a series of questions focusing on the core values underlying the concepts of wellbeing and development, I consequently found that on Lihir Island, after living in the village setting for approximately four weeks, I began to experience a degree of research data replication. In qualitative research terms, this point in the research process can be described as reaching a point of research saturation (Bowen, 2008). At this point, discussions with non-lease area landowner participants around wellbeing and development, and people's experiences of mining company development intervention, were becoming highly consistent and no new research themes were emerging. I believe this was due to my consistent and focused enquiry related to these topics, and my high level of engagement with non-lease area landowners. Reaching this point also prompted me to more actively engage with lease area landowners and mine company staff.

It is also noted that differences exist in relation to the secondary data sources available relative to each case study. As a consequence of the publicly available nature of mining company reports and documentation released by Newcrest Mining Ltd., which, in contrast to reports released by St Barbara Ltd., often contained information relating to mining company development intervention, a more comprehensive set of secondary data was available in relation to my Lihir based research. This secondary set of data was further bolstered by an extensive body of anthropological literature being accessible in relation to Lihir Island (see Bainton 2008a, 2008b, 2009, 2010, 2011). While this additional information further assisted with the process of triangulation used to cross-check the primary data sources for Lihir Island (as discussed below), it did not hinder or unbalance the research process in anyway. This is because the two case studies were not intended to be considered in direct comparison, due to the divergences that exist between each case study relative to context, scale, history, and in relation to the varying development commitments made by each mining company. Instead, each case study can be read as an account of corporate development intervention, which

when read in unison, can help cultivate a more comprehensive understanding of mining sector support for community development within the New Ireland Province, PNG.

Research Assistance

Throughout the course of my research I worked with a total of three paid research assistants. On Lihir Island my research assistant was a Papua New Guinean man aged between 20-25 years old, and on Simberi Island I was assisted by two Papua New Guinean women, each of a similar age to myself (37 years at that time). Each research assistant worked with me individually and on a part-time basis, providing cultural guidance and translation support throughout my four month stay in New Ireland Province. On Simberi Island, I was fortunate that both of my assistants had extensive connections across the Island, which in turn, increased my accessibility to potential research participants. Yet even though the support of my research assistants was invaluable over course of my fieldwork, where an interviewee could speak English, my preference was to undertake interviews independently, as it generally enabled me to establish a better sense of rapport with my interviewees.

Power and Positionality

Throughout my fieldwork I was constantly reminded of the fact I was an outsider. When I was in the village environment children and young adults regularly called out to me using the terms 'Mrs' or 'Master'. Not only did I cringe at being identified as a colonial 'Master', but I was also unhappy at the fact that I was often mistaken for being a man! Notwithstanding such constant reminders of my 'otherness', I found it extremely difficult to remain reflexive²⁸ and critically conscious about my position and power as a researcher throughout the fieldwork process. More often than not, I found myself becoming consciously aware of my positionality and power after the interview/engagement. For example, after an interview or conversation had taken place I would at times come to realise that I had dominated the discussion through my questioning, or as a consequence of a persistent line of research enquiry. The post-field work process of listening to recorded interviews as part of the interview transcription process was also useful in this regard, highlighting the ways that research questioning can shape the trajectory of an interview.

The power relationship between myself and research participants was however dynamic, varying in relation to my approach, the research participant in question and the context of

²⁸ England considers reflexivity to mean the "...self-critical sympathetic introspection and the self-conscious analytical scrutiny of the self as the researcher" (1994, p. 82).

research engagement. For example, when situated within the community relations office at each mine, my restricted access to corporate documents and information reduced my access to corporate knowledge and limited my power as a researcher. Within the community I also believe an inability to speak fluent *Tok Pisin* at times empowered research participants and reduced my perceived power as the 'researcher'. This was clear on Simberi Island, when as my understanding of *Tok Pisin* improved, I became conscious that in certain instances landowners intentionally defaulted from speaking *Tok Pisin* to speaking their local dialect of Mandara (their local *lingua franca*) in order to limit my access to certain discussions. When I asked my research assistant about this, she responded by saying 'some things should be private'. Yet at the same time as my power as a researcher was constrained, I realise that I maintained overall power over, and control of the research process. As recognised by McLafferty "...except in rare cases, the researcher holds a "privileged" position – by deciding what questions to ask, directing the flow of discourse, interpreting interview and observational material, and deciding where and in what form it should be presented" (McLafferty, 1995, p. 437).

Although my level of critical awareness of my position and power as a researcher during the fieldwork phase might be described as more periodic than constant, I believe the emancipatory nature of this community-based research itself helped to enhance the legitimacy of the research by reducing my dominance and expressed bias as a researcher. As recognised by Cornwall & Gaventa, "[i]n some situations, the asymmetrical control of knowledge productions of others can severely limit the possibilities which can be either imagined or acted upon; in other situations, agency in the process of knowledge production, or co-production with others, can broaden these boundaries enormously" (2001, p. 72). As the lived realities of landowners explicitly inform the established research framework and the associated analysis the research data, methodologically this approach helped to reduce my non-indigenous western cultural bias by recognising that a broader set of diverse and subjective 'truths' exist (O'Leary, 2010, p. 127).

5.4 Data Analysis

I began an iterative process of qualitative data analysis (O'Leary, 2014) shortly after I returned from my fieldwork to New Zealand on the 24th December 2014. At this point I began to establish the conceptual research lens based on development ethics. As discussed in Chapter 4, this conceptual lens is premised on human wellbeing, human rights, and inclusive development as being three key ethics of development. As explained within the previous

chapter, these development ethics were selected because they connect to the distributional and structural dimensions of social justice.

The data analysis process can be broken down into three key stages, as follows:

Stage One - Establish an analytical research lens and organise the raw data.

Between January 2015 to April 2015 I established the basis of the conceptual development ethics research lens applied to this research. During this time I was also simultaneously engaged in the process of *interview transcription*. Using 'Transcribe', a form of transcription software²⁹, I transcribed all my recorded fieldwork interviews. For data analysis purposes, following each interview transcription I also noted key impressions and points that I felt were particularly important within each individual interview. Once all my interviews were transcribed, I *reviewed the broader collection of textual documentation* collected over the four month period fieldwork process, and familiarised myself with the breadth of information collected. At this point I also saved the transcribed interviews into NVivo, which is a qualitative data analysis software programme.

Stage Two - Undertake inductive and deductive forms of inquiry.

I then began an iterative analysis of the research data, working between *inductive and deductive* modes of inquiry. By the term 'inductive' inquiry I refer to a form of empirical investigation that involves mining the research data 'from the ground up', without any predetermined theory (O'Leary, 2014, p305). In contrast, 'deductive' inquiry involves mining the research data 'for predetermined categories of exploration', essentially building a research theory through the process of 'progressive verification' (O'Leary, 2014, p305).

The three-part development ethics conceptual lens established during stage 1 of the data analysis process acted as a foundation for the coding of my research data. During this early stage of the research analysis process, I initially conceptualised 'inclusive development' as 'participatory development'. Nevertheless, I eventually decided 'inclusive development' was more appropriate as it incorporated the consideration of the various aspects of participation in development, but was also more broadly concerned about the equity and fairness distribution connected to the process of development. I subsequently used NVivo to assist with the manual coding of my research data into research themes relative to wellbeing, human rights,

²⁹ Available at [www.https://transcribe.wreally.com/](https://transcribe.wreally.com/).

and inclusive development³⁰. As required by the NVivo software system these research themes were established as research 'nodes'. A node can broadly understood as "... a collection of references about a specific theme, place, person or other area of interest" (Bryman, 2012, p. 596). NVivo was also used to manage my interview data, to search for key terms, and to connect varying conceptual ideas relative to the three primary thematic nodes (see Appendix 5 for an overview of the NVivo nodes used).

After establishing the three development ethics as research nodes, I then applied an inductive process of analysis to understand and conceptualise the meaning of wellbeing relative to the research context. I also developed sub-nodes (or child nodes) to signal secondary research themes helpful for sorting of the research data. The outputs of this stage of the data analysis process in turn allowed me to apply the resulting wellbeing insights to locally contextualise international theorising on human rights within the research context. In doing so, this enabled me to reconcile locally significant wellbeing and development values with international development theorising (as discussed in Chapter 9), and to consider local level experiences of mining company development intervention through the ethical lens of inclusive development (as discussed in Chapter 10).

Stage Three - Interpreting meaning from the data:

As noted above, through the process of data analysis I interpreted meaning from the data. To do this I used the *process of triangulation* to cross-check my research data. As explained by Silverman, "[t]riangulation usually refers to combing multiple theories, methods, observations and empirical materials to provide a more accurate comprehensive and objective representation of the object study" (2014, p. 91). Although the process of triangulation inherently suggests that there is one ultimate correct source of truth, as in the case of this research where multiple realities and perceptions of truth have the potential to exist, the process of triangulation can act to validate data sources, as well as to "... provide evidence about different (or similar) perceptions of the same phenomena..." (Gomm, 2009, p. 367). The use of document analysis complemented my field observations and interviews, helping me to interpret meaning from the varying data sources. A brief three day return visit to Lihir Island in March 2016 was additionally useful, giving me the opportunity to further reflect on earlier observations and preliminary research findings (as discussed in more detail in Chapter 10).

³⁰ As initially conceptualised in Nvivo as participatory development.

5.5 Conclusion

In summary, the pragmatic case study methodology adopted within this research is participatory, evaluative and emancipatory in orientation. While I, as the researcher, assumed the role of interpreting knowledge and meaning generated through research participant engagement and analysis of written documents, research legitimacy was enhanced as a result of empirically established community-based narratives that inform the analysis of the research data. Through these narratives, the voices and perspectives of landowners living with mining emerge alongside voices and perspectives of mining company staff. This holistic research methodology helped me to better understand the complexities of delivering meaningful development on Simberi and Lihir islands. The following chapter goes on to explore local understandings of wellbeing and development within the research context.

6. Exploring Wellbeing and Development

In order to answer the research question ‘how effective are the community development initiatives of mining companies operating in New Ireland province, PNG, in bringing about locally meaningful development?’ it is first necessary to establish what constitutes meaningful development in the research context. Within this chapter I explore local landowner interpretations of and views about community development and *gutpela sindaun*, or ‘the good life’ (Cox, 2006, p. 3) on Simberi and Lihir islands. This discussion highlights the centrality of mining to community wellbeing and development aspirations, and draws attention to the relevance of material advancement to the understanding of ‘real development’. The chapter proceeds in two parts. Firstly, it presents a collection of ideologies, cultural values and useful for contextually orientating the wellbeing and development aspirations established within this research. Within this set of ideas and beliefs, the Papua New Guinean desire for both development and tradition is notable (Golub, 2014), as is the tension between egalitarian ideals and the practice of possessive individualism. It then explores the relationship between wellbeing, development, and conceptions of the good life on Lihir and Simberi islands.

6.1 Locating Wellbeing and Development

The Pacific Way is an ideological construction of the 1970s and 1980s. As an ideology it signified the existence of societal unity within the (South) Pacific premised on the existence of a shared set of cultural values. Even though this ideology may be of limited relevance to wellbeing and development matters within PNG today, it is acknowledged here as being an ideological wave that gave force to the evolution of an alternative, more Melanesian ideology known as the ‘Melanesian Way’. The idea of ‘a Pacific Way’ as a semi-utopian indigenous strategy (Connell, 2007), was introduced by Ratu Sir Kamisese Mara (Fiji’s first Prime Minister) in 1970 in his address to the United Nations General Assembly (Crocombe, 1976). Mara suggested the values of consensus and tolerance informed a Pacific identity (Lawson, 2013), which could be associated with the related jointly held ideals of participation, peaceful negotiation and generosity within the Pacific (Crocombe, 1976).

The Pacific Way, however, lacked meaning at the village level within the Pacific (Crocombe, 1976) and in essence, existed as a vague and elitist ideology useful for political adaption and interpretation (ibid.). Critically considered, the ideology of the Pacific Way could be deemed an attempt to mask the social differences that existed between the Polynesian styled hereditary hierarchies of Tonga, Samoa and Fiji, and the bottom-up Melanesian egalitarian structures

found within Western parts of the Pacific (Lawson, 2013). As it was an ideological notion that gave preference to Polynesian character and political practices at the expense of Melanesian equivalents, Lawson (2013) suggests that this privileging of Polynesian character³¹ may have been one of the reasons why an alternative, more Melanesian form of identity based discourse emerged within the 1970s, at a time when Melanesian countries were moving towards independence (Lawson, 2013). Centred on an idealised Melanesian way of life, the Melanesian Way surfaced as part of this new ideological discourse.

Championed by Papua New Guinean Bernard Narokobi in the late 1970s, the Melanesian Way attempted to establish a positive Melanesian identity philosophically founded on ancient virtues (Narokobi, 1983). Seeking to blend the best aspects of tradition with modernity and Christianity, this ideological identity was framed by Narokobi as being in opposition to Western culture (Narokobi, 1983; Otto, 1997) and described as being "...a vision of totality, a vision of cosmic harmony" (Narokobi, 1983, p. 6). Although Narokobi never intended it to be construed as a distinctly Papua New Guinean form of identity, the Melanesian Way was likened to being a liberation movement within Melanesia (Otto, 1997), and within PNG it served as an anti-colonial nation building tool that emphasised the "...respect for the past with openness for change" (Otto, 1997, p. 60). As evident within the case study context, both the desire for change and the respect for the past remains important to customary landowners.

Hybridity and Innovation

Keesing (1982) suggested the values of community, mutual obligation (reciprocity) and exchange, sharing and caring, and kinship obligation are institutionalised within Melanesian society. Adding to this, within PNG, *wontok-ism*³² (Golub, 2014) and *kastom* (Otto & Pedersen, 2005) are recognised as being central traits of culture. Literature also suggests that the ideals of unity, consensus and harmony are often significant to Papua New Guineans (Golub, 2014; Leavitt, 2001). According to Wagner, however, within Melanesia conventions should not be read as codes to be followed '...but rather used as the basis of inventive improvisation', "[t]he controls are themes 'played upon' and varied, rather in the way that jazz lives in a constant improvisation of its subject matter" (1975, p. 88). As explained by Golub, although consensus and harmony may be significant to Papua New Guineans, consensus may be more honoured in breach as opposed to observance: "Competitive and egalitarian,

³¹ And the associated reinforcement of colonial power relations articulated through Pacific Way (Lawson, 2013).

³² *Wantok* is Tok Pisin for 'one-talk', shared between those of a common tribal identity or language (Barker 2007, p11).

Melanesians often see agreement as a process of opposition to be managed, rather than a state to be achieved once and for all” (2014, p. 182).

The hybrid ideological space in which Melanesians find themselves is perhaps a rationale for the ‘inventive improvisation’ suggested by Wagner (1975, p. 88). According to Barker, ‘[w]antok networks’, ‘local communities’, ‘modernist institutions’ (being those organisations funded through the cash economy and unaffiliated to indigenous culture), and ‘imagined communities’ (such as Christendom and ‘indigenous peoples’), all commonly affect the lives of Melanesians, which may result in diverse social outcomes (2007, p. 11). Through this enduring ideological encounter and the knitting together of these influences with local practices, innovation can result. Curry (1999, 2003), for example, argues that indigenous and introduced economic forms have blended together within PNG to create socio-economic hybrid economies, which can reinforce material symbols of progress and prestige as important development considerations.

The concept of the ‘cargo cult’ can conceptually be drawn on to illustrate the existence of hybridity in connection to development, as well as signalling the diverging meaning of material and non-material objects connected to development within Melanesia (Goddard, 1995). An anthropological term used to refer to the existence of social movements within the South Pacific (Lindstrom, 1993), the notion of the ‘cargo cult’ reflects wide ranging forms of collective behaviour channelled to achieve a range of collective ends, often invoked through esoteric means (ibid.). Being a pejorative term adopted by the PNG colonial administration within the mid-1940s, the existence of a cargo cult was initially understood to reflect an indigenous desire for material objects. As initially used, the term insinuated “...the inability of indigenous people to understand the origin of goods and the need for hard work” (Connell, 2007, p. 125), laying blame on Papua New Guineans for creating their own ‘underdevelopment’ (Lindstrom, 1993, p. 8). Anthropological accounts of cargo cults have, however, since evolved to encompass more deconstructive accounts of the cargo cult, rendering them to being:

“[S]ubtle culturally specific but hybrid value systems that fused culture, politics, economics, religion and social structure, partly in opposition to imposed systems and partly in their co-option (Lindstrom, 1993), in order to stimulate a culturally appropriate economic and political development” (Connell, 2007, p. 125).

On Lihir Island, Bainton (2010) has recognised the fusion of culture, politics, the economy and religion within social movements, positing that historic social movements can be seen to inform contemporary aspirations for Lihirian development. In the mid-1960s a social

movement described as the 'Johnson Cult' arose within southern New Hanover and other parts of New Ireland (refer to Map 1). The central aim of this social movement was to achieve moral equality and fulfil economic development desires for Papua New Guineans through replacing the Australian colonial authority with an American colonial authority (Bainton, 2010). With varying forms of collective action derived from the 'Johnson Cult' affecting Lihirians, Bainton rationalises that Lihirian concerns about marginality and social inequality exist as the underlying premise of collective action. Consequently, for Lihirians cargoistic desires were seen to be not solely materialist, but connected to the Lihirian desire for respect, moral equality and social status that were subsequently associated with aspirations for material wealth (Bainton, 2010):

“Through their eyes, we thus begin to see the practical and symbolic qualities of goods, the social uses to which they can be put, and the idea that things are valued not only for their material uses but because they can be used in social transactions that establish mutuality and respect” (Bainton, 2010, p. 61).

Sahlins illustrates the innovative hybridities that are found within Melanesia through his notion of 'develop-man' (Sahlins, 2005). Derived as a consequence of mis-hearing *defelopman* (the Tok Pisin pronunciation of development in English), Sahlins argues that within the Pacific “[t]he first commercial impulse of the local people is not to become just like us, but more like themselves” (Sahlins, 2005, p. 23). Through the term 'develop-man' Sahlins thus seeks to convey how indigenous people within the Pacific selectively use Western goods, and experiences of capitalism more generally, to strengthen their indigenous ideals of 'the good life' (2005, p. 23). His theory does, however, suggest that the strengthening of indigenous forms of the good life through capitalist forms may be transient, being part of a broader shift towards economic development. This process, he argues, can require passing “... through a certain cultural desert to reach the promised land of 'modernisation'...” (Sahlins, 2005, p. 37).

Egalitarian Unity versus Individual Autonomy

Within PNG, the contradiction between the egalitarian ideal of unity and the influence of individual autonomy that is continually being negotiated (Barker, 2007) is possibly a sign of the cultural desert to which Sahlins is referring above. Martin (2013) believes the tension between egalitarian unity and individual autonomy is captured through the use of the term 'big-shot' within PNG, which is a term commonly levelled at the Papua New Guinean elite. As Martin explains, the term 'big-shot' exists in contrast to the term for the traditional Melanesian 'big man' or *bikman* (in Tok Pisin). Whereas the *bikman* draws on and extends networks of debts,

obligation and reciprocal expectations to make himself big and of value to his supporters (Burridge, 1975), the 'big shot' denies these relationships and separates himself from moral obligation to kin and others (Martin, 2013). The 'big-shot' in this sense can be likened to Macpherson's 'possessive individual', being the "...conception of the individual as essentially the proprietor of his own person or capacities, owing nothing to society for them" (Macpherson, 1962, p. 3; Martin, 2013).

Martin suggests that in PNG changing social circumstances effectively shift the conditions within which people, such as 'big shots', will accept or reject claims of reciprocal obligation (2013, p. 182). Anthropological research undertaken on Lihir Island effectively supports this theory. While the economic benefits of large-scale mining activity have the potential to be extensively drawn-upon through kinship networks, landowners on Lihir have been observed purposefully limiting their social networks in order to restrict wider access to mining derived wealth (Bainton, 2009, 2010). As observed by Bainton (2009), the traditional notions of egalitarianism, reciprocity and obligation are changing on Lihir as a consequence of more individualistic forms of landowner behaviour that seeks to limit the distribution of mining benefits within the Island community:

"Lihirians have begun to realise that sometimes it is better to limit other people's claims to ownership to certain items and resources, or forms of wealth and development. Ultimately the epistemologies of capitalism, combined with historical experiences and the interpretation of mining through local cosmologies, have become the reference point for considering individual and collective identities" (Bainton, 2009, p. 25).

Within this research, the tension between egalitarian unity and individual autonomy manifests as non-elite community-level concerns regarding elite benefit capture, and related forms of community-level discontent with respect to the distribution of mining development benefits across Lihir and Simberi Islands. This, in turn, highlights the complexity of the concept of 'community' and its application within the research context. While I often refer to the broader 'Island Community' throughout this research, I do not assume that the views or perspectives of the 'community' can be captured within any one singular representative community voice, nor do I assume that the Island Community represents one homogenous entity. As recognised by James et al. (2012, p. 16), communities in PNG have been recognised to be 'crossed by different overlapping relations' and traditionally not to have natural or definitive boundaries. Nevertheless, given that 'attachment to *particular* places and *particular* people' are salient features to understanding the concept of community within PNG, and within Melanesia more

generally (ibid, p. 16), reference to the 'community' relative to each respective 'Island Community' therefore remains appropriate as a descriptive term applied in context to this research.

As recognised by Golub (2014), propelled by indigenous life ways but fuelled by a wider suite of ideological and historical influences and ideals, a desire for both tradition and 'development' exists within PNG. This desire forms a part of the wider contextual space that encompasses localised aspirations for wellbeing and development on Lihir and Simberi islands. Within this space, and contrary to the assertion that such forms of development escape definition, being ambiguous and intangible in their form, Connell describes Pacific development aspirations to be clearly expounded in terms of "...needs for health, education, housing, income and so on, alongside social life and ritual" (2007, p. 129). In PNG such notions of development might be described as 'real development', as a consequence of being connected to the needs of the people and tied to locally meaningful cultural values. The opposite to this form of development might further be described as '*giaman* development' (*giaman* being Tok Pisin for false), which characteristically has been interpreted as referring to "...short term or meaningless promises about roads, jobs and cash" (James et al., 2012, p. 10). The following section canvases the concept of 'real development' or meaningful development, by considering the views and appreciations of wellbeing and development held by local landowners within the research context.

6.2 Exploring Real Development on Lihir and Simberi

This component of the discussion explores how research participants perceive the notions of 'community development' and '*gutpela sindaun*', the latter being a Tok Pisin phrase signifying the existence of a good quality of life within PNG. The relational dynamic that emerges between these two concepts in turn reveals an understanding of wellbeing and development that reflects the presence of mining across Lihir and Simberi. It also highlights the expectation of company–community reciprocity, and the existence of an enduring and widespread hope for the more inclusive distribution of mining-derived development benefits.

Before exploring the content of locally premised understandings of wellbeing and development, my assumptions and pre-fieldwork naivety related to this aspect of the research should be acknowledged. Prior to commencing the research fieldwork, the research objective to understand the scope of locally meaningful wellbeing values appeared to be both logical and achievable. After all, my research would be essentially premised on this understanding, so it was obvious to me that I should establish a comprehensive understanding of these local

wellbeing values. Upon reflection, however, I realise that it was naïve and perhaps ignorant to expect that I could develop this level of understanding given the relatively short duration of fieldwork and being situated within a culture so different to my own. Given the limited four-month research duration, the two fieldwork sites, the language barriers and the associated nuances of meaning that were likely lost as a consequence of the necessary process of translation, my ability to understand the full extent of local wellbeing values was inevitably inhibited. The research findings detailed below are therefore put forward as a partial account to understanding human wellbeing within the research context. I hope that this account nevertheless has a place within other more nuanced appreciations of human wellbeing as it might exist within these island communities.

By exploring local interpretations of *gutpela sindaun* and community development, I attempt to establish a point of reference for considering the effectiveness and value of mining company development intervention. While I did not presume to know what these terms might mean to research participants, I nevertheless unconsciously assumed that *gutpela sindaun*, as a nationally significant concept connected to human wellbeing, would be distinct from mining and the concept of community development. For this reason I was surprised by the degree of connectedness between *gutpela sindaun*, mining and community development that emerged. Landowners, in contrast, often initially appeared surprised at my questioning about *gutpela sindaun* and my interest in what this concept meant to them. When answering questions about *gutpela sindaun*, they would often quickly relate *gutpela sindaun* back to the distribution of mining benefits. Reflecting on my oblivious assumption that *gutpela sindaun* was distinct from mining, together with my concern that research participants might be connecting their answers back to mining as a consequence of being aware of my interest in forms of mining company development intervention, during the earlier days of my research I would often repeat my questions about *gutpela sindaun* in varying rephrased forms, anticipating (or perhaps hoping for) a different answer. As a consequence of this line of questioning, I likely frustrated a great deal of people, but was able to establish that when locally interpreted, *gutpela sindaun* directly interfaces with mining and the notion of community development.

While I had been cautioned by another expatriate against asking local island community members questions about 'community development', on the basis that it was a foreign concept and would likely result in a number of 'blank stares', this was not my experience. As illustrated below, although landowners recognised that community development was an introduced concept, they nevertheless held clear, albeit varying, views as to what it meant to them. Such interpretations, however, commonly differed to mainstream Western notions of the term 'community development', which would typically construe community development as

necessarily being a bottom-up or community driven process or project. Within the research context community development is better understood as local development connected to improved living standards, which it is entirely accepted, if not expected, should be derived and delivered through, and as a consequence of mining.

Understanding Gutpela Sindaun

Gutpela sindaun literally means ‘sitting down well’ and infers the existence of a good life (Stewart & Strathern, 2000), and therefore a good quality of life (Jacka, 2007). It is a socially and politically significant phrase within PNG often used to describe “...what it means to be an effective community or society, as those who ‘sit down well’ are able to be still and stable in the company of others; it implies a good state of being” (Gillespie, 2013, p. 181). References within theological literature further suggest that *gutpela sindaun* signals the abundant life that Papua New Guineans strive for (Kero, 1998; Wani, 2010). This abundant life, according to Wani (2010) is a life of “...harmony, peace, unity, social justice, wholeness, restoration, freedom, security, plenitude, and release from oppression”, which only becomes possible “...when things are right” (2010, p. 89). When things are right the material indications of *gutpela sindaun* might include, for example, the absence of sickness within a community, amply producing gardens and the existence of healthy livestock (Kero, 1998). *Gutpela sindaun* has therefore been described as denoting being ‘healthy’, encompassing a collective understanding of health that includes “...security, health, wealth, growth, prestige, good relationships, meaning etc” (Orathinkal & Vansteenwegen, 2004, p. 149). This is attested in participant descriptions of *gutpela sindaun*:

“Gutpela sindaun is something that should be part of community development. It means to help the young people to grow up and know [the difference] between good things and bad things. Giving youth opportunities to take part in mining, to make them know the good things and bad things about development... When the company finish, then they [the youth] should know what next. But now I don’t see anything like this” (L19).

“In the past our ancestors relied on traditional ways of maintaining gutpela sindaun, but today we rely on knowledge and other flows through the mine, including opportunities like employment” (L10).

On Simberi and Lihir there is significant consistency amongst research participants interpretations of *gutpela sindaun*. Not only was it understood to reference healthy living,

happiness and physical health within the family and the community, but it was also largely understood to be an expression of community health in the longer term. Within the research context therefore, it is a term that, by default, is linked to the uncertainty of the post-mining future for each island. *Gutpela sindaun* and the potential achievement of it, therefore emerges as an understanding of community wellbeing related to mining operations. While it is a term used to refer to community wellbeing, and peaceful living at the family level, it is also understood by many to signify an improved state of being, something that it was hoped would flow from mining.

Wellbeing as Gutpela sindaun and Development

“Community development is development that must result in gutpela sindaun”
(L10).

Research findings suggest that *gutpela sindaun* is closely related to community development, and that for some research participants they mean the same thing (L10, L25). Similar to *gutpela sindaun*, community development emerged as being associated with the idea of better living and healthy relationships. However, whereas the *qualitative scope* of *gutpela sindaun* was often described, the *material dimension* of community development and its connection to mining operations was given greater emphasis. The material aspects of community development identified include: improved housing, health, education, water supply, roading and, more broadly, the infrastructure that would support these development goals. While some landowners considered self-reliance (L8), community-level empowerment and the associated development of knowledge to be important aspects of community development (L28), other landowners broadly emphasised the significance of social development and infrastructural development that would be of benefit to the Island majority. Accordingly, ‘bottom-up’ or ‘grass- roots’ development initiatives, which more typically align with Western concepts of community development, are perhaps best seen as a strand of community wellbeing that is woven into a broader view that mining companies operating in each context have a responsibility to facilitate community development in a more top-down fashion.

Whilst the interview questions enquired into landowner perspectives of ‘community development’, landowners often spoke of community development and development as synonymous concepts. As illustrated below, by a landowner who refers to the general lack of development on Simberi Island, material dimensions of development emerged as critically important to landowner wellbeing aspirations:

“When I say lack of development, I’m not sure if I’m using the right words. It’s the expectation of the people. The people know how they live before the Simberi project. Now with mining they see an opportunity to move from the state that they were in, to move to a slightly higher level. That’s not happening. Now, first maybe some people are focusing on development within their own life, but we are looking more broadly. This is a small Island. The first gold production was in 2008, it’s now over 6 years... This is a small Island, the Simberi population is less than 1000, and by now we should have permanent houses, a better toilet system and water supply system. That’s what I’m referring to as development” (S14).

Local understandings of *gutpela sindaun* and development therefore highlight the relational dynamic between the notions of wellbeing and development within the case study context. A direct connection exists between experiences of *gutpela sindaun*, aspirations for local level development, and the expectations of development benefits resulting from mining. *Gutpela sindaun* thus provides a holistic framing for community development, with the consequent wellbeing focus being understood collectively, in the sense of improved health and an enhanced quality of life for the community. Yet, while many research participants attested that *gutpela sindaun* and community development were concepts that were directly connected to the fulfilment of local community wellbeing, they also emerged as concepts that, at their foundation, could be differentiated by the core *qualitative* dimension of *gutpela sindaun*, and the primarily *material* aspect of community development. Accordingly, it is the interdependence between these concepts that connect them to each other. As such, the material components of community development that are significant at the local level, such as housing, healthcare, roading and general infrastructural development, can be understood to dissolve into people’s aspirations for *gutpela sindaun* or local understandings of the good life. For the purposes of this research then, community development is understood as being development that contributes to *gutpela sindaun*.

6.3 The Significance of Mining for Wellbeing and Development

Locally contextualised wellbeing and development values provide an expression of place that personifies the significance of mining operations for research participants. As argued by Appadurai, aspirations for wellbeing necessarily reflect place as “[t]hey are always formed in interaction and in the thick of social life” (2013, p. 187). For example, community aspirations for improved community health, roading, housing development, electricity, and water supply and reticulation ultimately connect back to the benefits landowners hoped would, and will, derive from mining operations. Aspects of these aspirations link to the content of the

Integrated Benefits Package established for Lihir and the Memorandum of Agreement established for Simberi (discussed in Chapter 7), as well as the heightened landowner expectations that are a consequence of these agreements, and the arrival of mining more generally. *Kastom*³³ and the associated importance of the values of reciprocity and redress, further reinforce the importance of connections to the company within local understandings of wellbeing. In this sense, the connection between local understandings of *gutpela sindaun* and development to expectations and/or hopes that mining operations will act as a catalyst for development is not unfounded. Collectively *kastom*, reciprocity and redress reinforce the significance of mining operations to landowners, reflecting the interface of mining operations with socio-cultural processes that exist within Lihirian and Simberian society.

“It was a Clan understanding of reciprocity, solidified through Kastom, that enabled the mine to come, because the community expected to receive in return” (L10).

While customary landowners may have clear aspirations with respect to community wellbeing and development, these aspirations often fail to align with what people anticipate within their future. A range of community wellbeing concerns consequently exist on Simberi and Lihir, and just as community wellbeing aspirations reflect mining, so too do these concerns. Concerns are primarily based on unease over the general lack of island-wide development, worry about the potential constraints of post-mining livelihood opportunities for those who have lost their land to mining, and anxiety over the consequences and extent of environmental damage. Proving to be the basis of a range of community narratives connected to wellbeing, development and mining (explored in Chapter 8) these wellbeing themes are often interconnected and overtly tie back to the economic, psychological and social dimensions of wellbeing and development as they are understood within the case study context (as detailed in Table 6). More implicitly, wellbeing and development themes also tie back to the environmental and political dimensions of wellbeing, which are reinforced by the significance of landowning status within PNG (discussed in Chapter 2) and implications of landowning status to economic, psychological and social wellbeing.

³³ The Tok Pisin term *akin* in English to ritual (Gillespie, 2013) or tradition (Otto & Pedersen, 2005).

Table 6: Dimensions of Wellbeing³⁴ and Development within the Case Study Context

Economic	Longer term human wellbeing and livelihood concerns encompass economic considerations associated with mining. Such considerations connect to the distribution of and access to mining compensation and benefits for family and community level <i>gutpela sindaun</i> , and the support of local level (community) development.
Psychological	Healthy living and peace within the family and community inform experiences of <i>gutpela sindaun</i> . Healthy living includes psychological wellbeing, encompassing matters such as human dignity and self-esteem, which connects to environmental and human security considerations relevant to human survival and community subsistence.
Social	The existence of peace and harmony within the community, informs local understandings of the good life. As attributes of <i>gutpela sindaun</i> , these social dimensions of wellbeing interconnect to the economic, psychological and political dimensions of wellbeing and development.
Political	The allocation and distribution of mining benefits is essentially a political process, and informs (in part) who is included and excluded from the receipt of mining benefits, as well as who is able to shape and influence the post-mining future. Issues of recognition, transparency and accountability between the company and community, and within the community emerge as important to local level wellbeing and development considerations. Although the political dimension of wellbeing and development may not be explicitly recognised within local landowner perspectives on wellbeing and development, it nevertheless implicitly remains a critical dimension to the advancement of wellbeing and development within the case study context.
Environmental	Although the intrinsic environmental worth tends to remain unrecognised within customary landowner perspectives on wellbeing and development, the environment and the connections people have to it, are essential to every aspect of wellbeing and development as it is understood within the Island context (i.e. economic, social, psychological and political).

On Simberi, for example, descriptions and experiences of environmental damage dominate wellbeing concerns across the Island. Premised on the local value and belief in reciprocity, concern for environmental wellbeing reinforces landowner views that St Barbara (SGCL) are responsible for, and obligated to deliver, community development on the Island:

“Community development is what the community must have. The damage has been done, and now community development must occur and bring about change because of these mining operations” (S17).

³⁴ The core economic, psychological, political and social domains of wellbeing are drawn from White (2009).

“We have to stay here with a damaged island. Therefore, as a Simberi landowner, we should be entitled to company-built houses (and other benefits from mining)” (S15).

On Simberi, landowners often deemed the development benefits from mining to be minimal, emphasising the significance of environmental wellbeing in context to wellbeing and development. Here, concern over environmental wellbeing was also reinforced by landowners who made reference to the pre-mining past as a utopian island model for their post-mining future. These landowners sought an environmental future for Simberi as it was before mining, “like it was in the first place” (S5), with its mountains and rivers intact (S2) and “as God created it” (S26, S16).

“... we are very tied up with our land. There a lot of things in the environment that are very useful for us and a lot of things we will never have again because of the destruction” (S7).

On Lihir Island, concern over the loss of natural resources (including areas of land and sea) that has occurred as a consequence of mining also appears to underlie wellbeing and development concerns expressed by Kapit landowners. Here, environmental concerns surface as concerns related to the post-mining sustainability of subsistence livelihoods³⁵. With the availability of environmental resources being connected to quality of life by landowners (L10), a loss of community level *gutpela sindaun* has been attributed to the loss of natural resources: “At first we thought that the benefits that the mine were offering us, including relocation benefits, would provide us with an alternative form of *gutpela sindaun*, but later we realised that these benefits were not enough to support *gutpela sindaun*” (L1).

Opportunities for Wellbeing and Development

Landowner concerns about wellbeing and development suggests the existence of a disjuncture between the development values as held by landowners and the scope of mining company community development support. As agreements informing the scope of potential opportunities for achieving locally meaningful development, the content of the MOA 1996 and IBP2 (discussed in detail in the following chapter), as well as their implementation and associated governance, become relevant to local community wellbeing and development.

³⁵ According to Banks such thinking is not uncommon within PNG, where “[e]nvironmental change becomes linked back into the world of relationships – in many cases the economic relationship, framed through the lens of compensation, between communities and the mining company” (2006, p. 262).

Whilst providing potential opportunities for local landowners to pursue their wellbeing and development aspirations, these agreements also have the ability to limit the achievement of wellbeing and development aspirations (O'Faircheallaigh, 2013). Accordingly, these agreements and their governance form a part of the 'opportunity structures' (Fischer, 2014, p. 6) that respectively inform the achievement of wellbeing and development on Simberi and Lihir. 'Opportunity structures' as described by Fischer "...encompass not only market relations but also formal and informal social norms, ethnic, gender, and other systematic distinctions; the principles and practice of legal rights and the whole range of institutional factors that define the space of the possible" (2014, p. 6). Thus aspirations for wellbeing are important, but so too is their achievement. Or as more succinctly put by Fischer: "The *will* is important, but there also has to be a *way*" (2014, p. 6).

"The agreement is in place for the mine to assist the community. However the people in charge of negotiations are misusing the money. Previously the mine was in charge of implementing the community projects, like schools etc. The recent change has seen a division with other local associations forming to manage these projects. The mining company [now] only injects funds into the company LMALA. This is the major concern for community development" (L10).

On Simberi and Lihir opportunity structures appear to be limiting the fulfilment of landowners' wellbeing and development aspirations. Similarly on both islands, amongst lease area and non-lease area landowners alike, there is the view that the operating mining company has a responsibility to support 'real' forms of community development.³⁶ As apparent from the voices of research participants, such meaningful forms of development can be understood as activity that 'progresses' or 'advances' people's living standards. While this form of development encompasses material dimensions, it goes beyond a simplistic notion of lineal, modernist forms of 'social advancement'. Customary landowners view quality of life progression or advancement as necessarily: (1) being culturally embedded as supportive of *gutpela sindaun*, (2) delivering tangible improvements to people's lives, and (3) broadly supporting the advancement of living standards beyond the elite minority, to support the Island community as a majority.

³⁶ It is acknowledged that this expectation exists alongside the view that those people directly impacted by mining activities through the loss of land or environmental damage should also additionally be adequately compensated for the loss of land and for other adverse environmental impacts. This is considered a baseline for which mining companies can build on by adding benefit to the community. Compensation benefits and development benefits are therefore considered to be theoretically separate, but become practically intertwined matters.

6.4 Conclusion

The dynamic connection that exists between landowner understandings of wellbeing and development and mining within the research context reflects the range of cultural, ideological and institutional influences that impact landowner identities and the realities in which people live. Local wellbeing and development aspirations in turn emphasise the relevance of mining company community development obligations (real and perceived), and stand premised on the need for corporate remediation and reciprocity. Landowners therefore position mining companies as being central to the potential fulfilment of their development aspirations. On Lihir and Simberi however, a space exists between landowner development desires and lived landowner realities. Although this space contains an enduring hope for change, it is also marred by frustration and disappointment over current forms of mining company development intervention.

Yet, the space between wellbeing and development frustration and aspirational fulfilment is also the space where opportunities to advance more meaningful forms of community development exist. For this reason, the consideration of how opportunity structures either progress, or otherwise constrain wellbeing and development aspirations, as well as a more detailed understanding of the extent of local wellbeing and development concerns, becomes central to this research. Within this research, the core wellbeing and development themes further explored through and amidst people's life experiences of mining operations (as detailed in Chapter 8) identify landowner unease over a lack of tangible island-based development, concern about the potential constraints of post-mining livelihood opportunities for those who have lost their land to mining, and the anxiety that exists over the consequences and extent of environmental damage caused by mining. These themes are important as they effectively highlight the disjuncture between community conceptions of meaningful development and the existing forms of mining company development intervention, as well as mining company intervention more broadly. This may be in part, due to the very nature of development. After all, similar to wellbeing, development is an aspirational notion, potentially representing a continually shifting form of desire that may never reach a settled state (Gough et al., 2007; White, 2010). However, on Simberi and Lihir islands, where the forms of meaningful development being sought have very tangible dimensions that are potentially achievable in a physical sense, the scope and governance of mining company community benefit sharing agreements must be recognised as having a role in frustrating the achievement these aspirations. Accordingly, the practice and governance of mining company community development intervention and the extent to which it is facilitating or impeding the achievement of meaningful community level development is the focus of the following chapter.

7. The Practice and Governance of Development Intervention

Having established an understanding of meaningful development within the research context, the purpose of this chapter is to outline the formally agreed scope of mining company development intervention, to explore the governance arrangements which inform the delivery of development intervention, and to detail the practice of development intervention on Lihir and Simberi. Together with the community narratives of mining intervention discussed in the next chapter, the practice and governance of development intervention discussed below, frames the human rights analysis detailed in Chapter 9. As suggested here, the scope of benefit-sharing agreements along with the practice and governance of development intervention exist as opportunity structures, and have the capacity to assist or constrain the achievement of meaningful forms of community development intervention. Due to the divergences that exist between the two case studies, in terms of context, scale, histories and in relation to the varying development commitments made by each company, it is not intended that the case studies be considered in direct comparison. Rather, they should be read as two accounts of corporate development intervention that, in unison, can help cultivate a more comprehensive understanding of mining sector support for community development within the New Ireland Province, PNG.

7.1 Community Development and Benefit Sharing Agreements

Corporate community development and benefit sharing agreements within the mining sector exist as formal agreements between community representatives (or representative organisations) and mining companies. These agreements may address the economic and social development matters connected to taxes, royalty allocation and distribution, compensation, employment, training, contract allocation, wealth generation projects (e.g. equity and investments) and community development programmes. They may also specify the extent of community development benefits that should derive from mining operations and may also help minimise the negative impacts from mining activity (O’Faircheallaigh, 2013). Development and benefit sharing agreements may also be advantageous for mining companies. O’Faircheallaigh argues that agreements “...represent a concrete and transparent mechanism that companies can use to defend themselves against criticism and to demonstrate their ‘corporate social responsibility credentials’ (2013, p. 227).

As is the case with the corporate community development and benefit sharing agreements in place on Simberi and Lihir, such agreements formalise the expectation that the community will not disrupt mining operations. Accordingly, such agreements may be seen as an attempt to establish formal recognition of a company's social licence to operate within a community. These agreements are "... not designed for ongoing responses to shifts in landowner perceptions. The contract is intended to avoid confrontation" (Toft, 1997, p. 20). Within the PNG context, development and benefit sharing agreements thus act to formally document the legal development rights applicable to varying stakeholder groups (Toft, 1997), potentially incorporating both landowner compensation and development entitlements (even though compensation and development entitlements are differentiated in legal terms)³⁷ (Filer, 2012). Also within the scope of such agreements, a company's intended beneficiary 'community' may be able to be ascertained, either explicitly through reference to specific landowning groups, or more implicitly through the scope of the community level development provisions and goals identified within the agreement (O'Faircheallaigh, 2013).

7.2 Benefit Sharing and Development Agreements for the Lihir Gold Mine

An extensive collection of mining benefit and development agreements have been negotiated between Lihir Gold Limited and various groups within the Lihir community. The Integrated Benefits Package (2007) might be described as being the principal development and benefit sharing agreement established between Lihir Gold Limited, the people of Lihir represented by the Lihir Mining Area Landowner Association Inc. (LMALA), and Nimamar Rural Local Level Government (NRLLG). This agreement encompasses the original IBP agreement³⁸ established for the Lihirian mining operation in 1995, and exists alongside a broader suite of agreements that specify varying landowner compensation entitlements, stakeholder commitments, and development and benefit sharing opportunities for wealth generation, human and institutional resource capital development, community social and infrastructure development and commercial engagement on Lihir, within the New Ireland Province and within PNG more widely (Lihir Gold Limited, 2012)³⁹.

³⁷ The PNG Mining Act uses 'compensation' in the narrow sense of the word, differentiating compensation from royalties and occupation fees (Burton, 1997) .

³⁸ The original IBP was finalised in 1995 and subsequently revised in 2007. Currently it is under review for the third time.

³⁹ The wider suite of development agreements includes over 200 separate agreements that have evolved through the life of the mine to date, and which specify varying contractual obligations between parties connected to the

The revised IBP is referred to within this research as the IBP (2007), the IBP2, or the Lihir Sustainable Development Plan (LSDP). The IBP2 exists as the primary mechanism through which Newcrest (LGL) channel their development commitments to support the Lihirian community, committing one hundred million kina (K100 million)⁴⁰ of LGL funding rolled out over a period of five years (subject to Consumer Price Index (CPI) adjustment). In 2014 the CPI adjusted amount equated to an annual allocated payment was K39 million (L23). The scope of this financial package includes funds which Newcrest (LGL) use to meet their fixed contractual obligations to lease area from landowners, including mining compensation and future generation trust fund payments, maintenance of infrastructure services, as well as the more 'discretionary' funding component intended for community programmes and projects. The discretionary funding component is largely managed by LMALA, who under the existing governance arrangement assume much of the responsibility for implementing Newcrest (LGL) funded community development programmes and projects. The nature of these programmes and projects is theoretically intended to be directed by the Lihir Sustainable Development Plan (LSDP or the IBP2).

The IBP2 states that the Lihir Sustainable Development Plan (LSDP) is intended "...to move the people of Lihir toward their long term goal (or the Lihir Destiny) of creating a healthy, wealthy, happy and wise society" (IBP2, 2007, p. 8). It is considered a means for realising earlier Lihirian prophesies, or the Lihir dream, for moral equality and material wealth that inherently informed part of earlier social movements (or cargo cult) movements on Lihir Island⁴¹ (as discussed in Chapters 2 and 6). The Spirit of Lihir dream, which is a local Lihirian development vision, is understood to be encompassed by the following development objectives identified and advocated within the LSDP:

- a) Parallel Development: To ensure that development in all villages in Lihir will happen in parallel to the development of the Lihir Gold Project.
- b) Balanced Development: To ensure that development in Lihir is balanced in all villages and wards in Lihir.

Lihir Island project. This includes, for example, the Mining Development Contract agreed between the Independent State of PNG and Lihir Gold (PTY) Limited (1995); the Memorandum of Agreement related to the Lihir Gold Mining Project (1995) between the New Ireland Provincial Government, LMALA and the Nimamar Development Authority (being that statutory authority set up under provincial legislation as the local government authority for the Lihir District), and the revised (2007) Memorandum of Agreement between the State, New Ireland Provincial Government, the Nimamar Rural Local Level Government and LMALA.

⁴⁰ In October 2016, one Papua New Guinean Kina (K) was worth 0.44 of the New Zealand Dollar.

⁴¹ The 'Lihir dream' is a Lihirian prophesy, which "...promised an inverted world order, where all Lihirians would gain access to unlimited wealth without expending effort or substance through morally diminishing labour underneath expatriates and other educated Papua New Guineans" (Bainton, 2009, p. 22).

- c) Sustainable Development: To ensure that development in Lihir is sustainable. That is, that development in Lihir must be able to be sustainable itself, without being dependent on the Lihir Gold Project.
- d) Stable Development: To ensure that development in Lihir is stable. This must happen in harmony with the Lihir Society and not destroy and erode the order and culture that existed in the society prior to the operation of the Lihir Gold Project (Lihir Gold Limited, The People of Lihir, & Nimamar Rural Local Level Government, 2007).

Within these development objectives it is clear that the benefits from mining on Lihir are intended to extend to the wider island 'community'. The fact that the people of Lihir are party to the agreement via the representation of LMALA underlines this. The development objectives advocated within the agreement further reinforce the relevance of equity to achieving parallel and balanced development, the importance of community independence for sustainable development, and value of culturally appropriate forms of development for stable development. As such, the purpose of this agreement can be seen to align with the understanding of meaningful development established through the course of this research (detailed in Chapter 5). Yet, although laudable sentiments may underlie the LSDP, the precise nature of the company's development commitments to the Island community remain absent from the LSDP:

“... the agreement appears to commit arbitrary amounts of money to various programs, including cultural heritage, with no information on responsibilities, strategies for implementation, or how these programs might connect to new CSR commitments, forms of best practice, monitoring requirements, the LGL Community Liaison department or the Cultural Information Office, or areas that require special attention” (Bainton, Ballard, Gillespie, & Hall, 2011, p. 93).

The LSDP document itself acknowledges that the corporate funding for development channelled through the IBP (1995) was squandered prior to 2007. However, instead of identifying issues of implementation and accountability as being factors contributing to disappointing IBP development outcomes, the LSDP blames a 'hand-out mentality' for causing money to be channelled away from the achievement of the objectives for parallel, balanced, sustainable and stable development. To remedy this, the IBP2 advocates personal development and the practice of savings to be the key means for achieving financial

independence and self-reliance within the community, identifying these as community goals. It further advocates the promotion of personal viability (PV)⁴², emphasising the importance of individual responsibility as a means to achieve balanced development (Haro, 2010). Considered from a critical philosophical view point, the enhanced focus on PV within the IBP2 might be seen as an attempt to shift the discursive theme of the agreement away from the concept of community 'entitlement' to community 'empowerment', and by doing so may be an attempt to rationalise and potentially legitimise the more individualist forms of landowner behaviour being adopted by elite members of Lihirian society, with the effect of limiting the distribution of mining benefits on the Island⁴³. However, emphasis on self-reliance within the IBP (2007) does not negate the corporate commitments made to promote infrastructural benefits within the wider Lihirian community specified in the IBP(1995), nor the expectation, solidified through the 1995 agreement, that as a result of mining all Lihirians could expect the enhanced provision of their basic needs related to shelter, food and water.

7.3 Development Intervention in Practice - LGL

In 2013 LGL (Newcrest) established a new budget allocation system intended to enhance the transparency of LMALA's expenditure associated with IBP2 funding. As part of this system the discretionary spending component⁴⁴ of the IBP2 budget is transferred to LMALA, and allocated out against the specified IBP2 chapters and associated community programmes and projects established between LGL (Newcrest) and the LMALA. However, once the allocated funding is transferred, my research suggests that funding is then frequently reallocated within LMALA⁴⁵. Hence in such circumstances, LGL has little ability to challenge the redistribution of allocated funding, and may not necessarily even be aware of alternative distribution processes. For this reason, at the time of my research, LGL's budget system was ill-equipped to provide transparency connected to corporate development expenditure funding that was intended to support Island wide development.

⁴² As explained by Bainton: "Grounded in quasi world systems theory and neoliberal rhetoric, PV aims to create successful entrepreneurs who can reverse the economic trends of the past millennium. Using terms as core and periphery, marginal and centre, and first and third world, people are encouraged to think of the ways in which Western countries have progressively created conditions of dependence for countries like PNG" (2010, p. 150).

⁴³ Similar to the paradox of CSR as identified by Rajak the doctrine of self-empowerment here demands that beneficiaries demonstrate their will to 'help themselves' to the market benefits of mining, whilst simultaneously rejecting beneficiary stakeholder based forms of 'claim making' (2011, p. 231).

⁴⁴ To recap, the discretionary funding component is the funding remaining after the costs that the Company considered to be 'fixed' forms of development expenditure, are paid out.

⁴⁵ This was confirmed by two LMALA employees.

“It’s not our place to say what landowners do with the compensation and benefits money... The landowners have said we believe in parallel and balanced development, and rightly so, we should share that. But the company can’t dictate that, except, we have signed on to the concept...” (L23).

Although I approached LMALA on numerous occasions to discuss the IBP2 and learn about the extent of their community programmes and projects from their perspective, my access to LMALA was extremely limited, and accordingly very limited information about the scope and nature of these programmes could be ascertained. As there additionally appeared to be very limited knowledge and awareness of the scope of LMALA programmes and projects within the general Island population, the extent to which LMALA use LGL’s development funding to support meaningful forms of community development was not directly considered as part of this research⁴⁶ (with the exception of health as discussed in Chapter 7, and in relation to the cacao project discussed below under the heading ‘Chasing Development’). LGL’s direct forms of social and economic community development support could nevertheless be established, as outlined in the following table.

Table 7: Direct Forms of Community Level Social Development Support supported by LGL (Newcrest) on Lihir.

Infrastructure Programs
The provision of community housing, water supply, electricity connections within affected mining lease areas (Newcrest Mining Limited, 2014c, p. 5).
Support for the provision of community housing across Lihir Island via the Village Development Scheme (VDS) (refer to Figure 7 for an overview). ⁴⁷
The provision of reticulated water supplies for Putput, Lipuko and Londolovit village (Newcrest Mining Limited, 2014c, p. 5).
The provision of treated water and waste water services to Londolovit townsite shops and businesses (Newcrest Mining Limited, 2014c, p. 5).
Health
The establishment of the Lihir Medical Centre, Londolovit. Established as a development condition for the mine in 1997 by LMC and with funding support from the State. The purpose of this medical facility is to provide services to the general public and mine employees. In 2014, the hospital was operated by the private company International SOS, and predominately funded by Newcrest but also supported by a government subsidy.

⁴⁶ At the time of my research I could not help but think that the reluctance of LMALA to provide information about the scope of their community development projects and programs was an attempt to avoid independent assessment and review of development activities (and expenditure).

⁴⁷ Although the role of the VDS is to ensure that all areas on Lihir Island benefit from the development of the mine in relation to housing assistance, village waste water schemes, electricity supply and sanitation, as discussed in Chapter 8, in practice it is largely interpreted and used as a fund to support housing (Bainton, 2010).

The establishment of the Lihir Island Community Health Program (LICHP) to support health aspects of community development promotion and protection, and support for the maintenance of aid post infrastructure within affected areas, is indirectly funded through the company.

Education and training for LGL workers relating to HIV/AIDS awareness, Malaria awareness and prevention and a Hepatitis A and B vaccination programme (Newcrest Mining Limited, 2014c).

Newcrest are also part of a five-year partnership with the Medicines for Malaria Venture (MMV), a Swiss-based non-profit organisation that conducts research into, and develops, low-cost malaria treatment drugs, which has seen a feasibility study being undertaken in support of the elimination of malaria on Lihir (Newcrest Mining Limited, 2014). This initiative remains ongoing.

Education⁴⁸

LGL provides a flexible learning resource/education centre, which provides opportunities for Island residents (including but not limited to employees) to pursue their studies between the levels grade 8 and 12.

Gender Equality

Newcrest report being "... active in promoting a zero tolerance for violence against women and has continued to provide access to a number of education and awareness-raising opportunities for employees, in order to provide information to support Newcrest employees impacted by violence. This also assists in getting the messages back to families and villages and may contribute to breaking silence around this subject" (Newcrest, 2014, p. 39).

In addition to social development, economic benefits emanating from mining accruing to the community include the benefits and compensation payments managed by LMALA, as well as benefits from employment, services and contracting, and revenue streams as a result of taxes, royalty payments and equity payments (as detailed in Table 8 below).

Table 8: An Overview of Community Level Economic Development Support supported by LGL (Newcrest) on Lihir.

Benefits and Compensation Managed by LMALA between 2006-2012 (Newcrest Mining Limited, 2015b).	
Funds paid by LGL to support LMALA Community Projects	K161,800,000
Funds paid by LGL to support LMALA administration, capacity building and to support the agreements review	K77,900,000
Additional support paid to LMALA to support business development and savings	K61,500,000
Employment Benefits	
A preferential employment agreement commits the company to give employment preference: 1st to residents of the Lihir District; 2 nd to New Ireland Residents; 3 rd to other Papua New Guineans.	
It was reported that 8.3% of the mine's senior management and 25.7% of the mines total operational workforce were from Lihir (or who have been adopted as a local and reside on the Island) (Newcrest	

⁴⁸ Beyond the direct economic benefits stemming from the IBP2, LGL(Newcrest) has also indirectly contributed to secondary schools reburishments within the New Ireland region through the New Ireland Province Tax Credit Scheme (Newcrest Mining Limited, 2014c).

Mining Limited, 2014b, p. 6). This equates to approximately 500 locally based employees. At the end of 2014 (financial year) there were a total of 1,942 employees at the Lihir Mine (1682 men/260 women), and 2205 contractors. The total costs on salaries and wages at the Lihir Mine for 2014 was calculated to be AUD\$123.9 million.	
Mining Royalties paid between 2006 – 2015⁴⁹ (Newcrest Mining Limited, 2015a).	
Royalties paid to H6 Lihirian Special Mining Lease Block Executives.	K74,879,399
Royalties paid to Nimamar Local Level Government ⁵⁰ .	K112,319,099
Royalties paid to New Ireland Provincial Government and Districts.	K187,198,499
IBP2 Grant (Chapter) Funding between 2006-2015 (Newcrest Mining Limited, 2015b).	
Chapter 1 - Funding fixed development obligations associated with community Village Development Scheme (VDS) housing assistance (see Figure 7 for a VDS overview), and other costs, including medical transfers, scholarships, health and education, law and order.	K142,200,000
Chapter 2 - Funding for compensation associated with environmental damage and disturbance.	K38,100,000
Chapter 3 - Funding for community development projects, including capacity building, health, education and infrastructure.	K5,400,000
Chapter 4 - Funding for LSDP projects, including for capacity building, the personal viability programme and agriculture projects.	K33,400,000
Chapter 5 - Funding for fixed corporate obligations associated with mine closure, including trust fund payments and relocation costs.	K13,500,000

Discord Over Development Roles, Functions and Funding

A level of discord exists between the two main institutional partners for development on Lihir, the Nimamar Rural Local Level Government (NRLLG) and LMALA, stemming from disagreement over the rightful allocation of IBP2 development funding provided by Newcrest (LGL) and the associated development responsibilities. This tension has permeated through the broader Lihir Island community, causing division and fuelling mistrust between community groups and individuals aligned with either organisation. It is seemingly driven by a combination of factors, including the scope and vagueness of development commitments specified within the IBP2, the extensive capture of community development funding by LMALA at the exclusion of NRLLG, and the questionable capacity of the NRLLG to translate funding for community development into development benefits. According to a local government

⁴⁹ As required by the PNG Mining Act 1992, a 2 per cent mining royalty is paid to the State. In addition to this, for the Lihir Gold Mine Special Mining Lease Block Executives receive 20 per cent of this 2 per cent royalty, Nimamar Local Level Government receive 30 per cent, and the New Ireland Provincial Government receives 50 per cent.

⁵⁰ Nimamar Local Level Government (LLG) is the other key partner for development in Lihir.

representative, the duplication of development functions is a significant challenge for effective community development on the Island. As argued by the representative, LSDP Chapter One (see Table 8 above) funding that was intended to be channelled for development through local government has been 'hijacked' by LMALA, resulting in a breach of the IBP2 agreement.

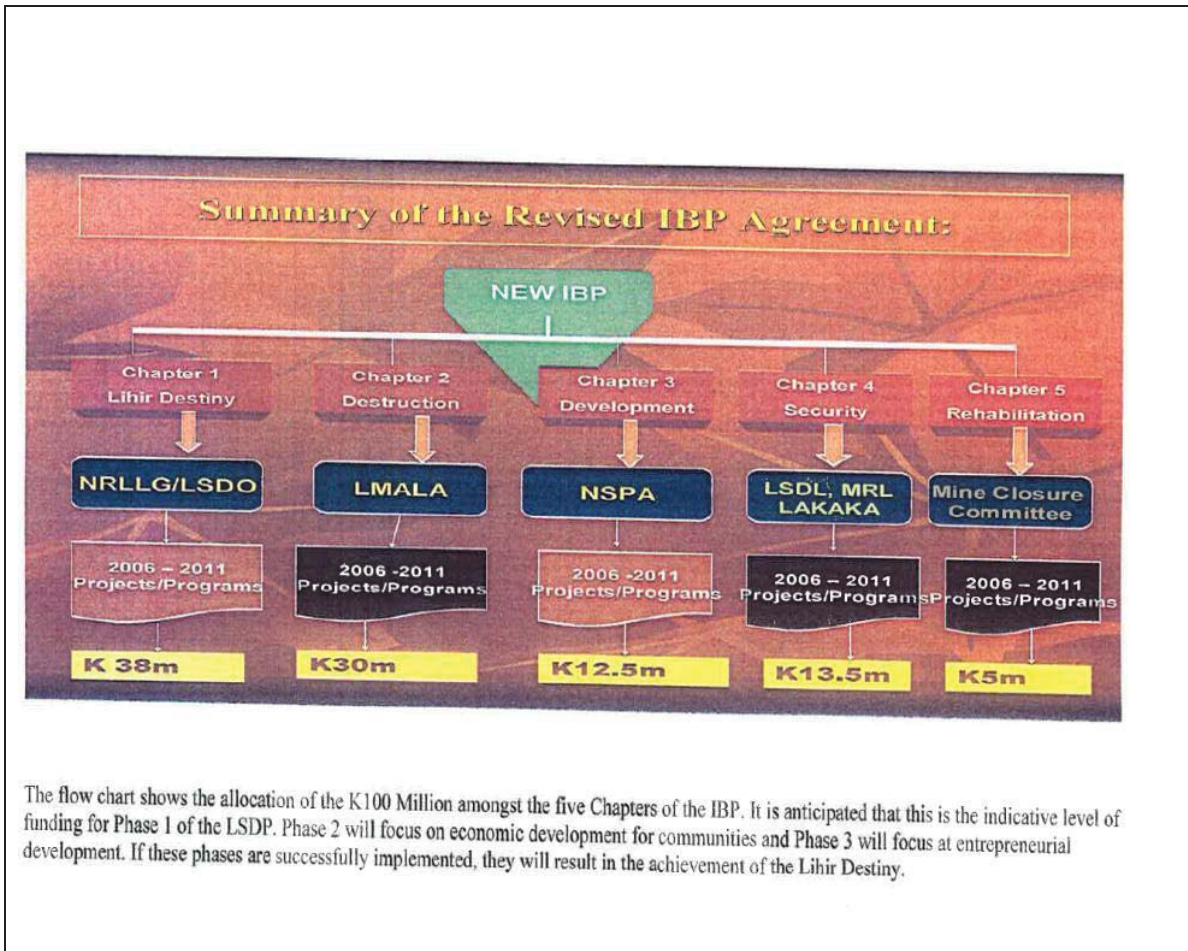
“LMALA has taken away the roles and functions of the established government on the Island” (L16).

“With the revised IBP, they set up a structure; the management arm of that for projects and programmes was the LSDP planning and monitoring committee, which all of the stakeholders were [supposed] to be members of. So it was meant to be a participatory type process” (L23).

While the detailed planning of development initiatives and budgeting is beyond the scope of the IBP2, a plain reading review suggests that the agreement indeed signals, quite clearly, the intent that the NRLLG, assisted by the Nimamar Special Purposes Authority (NSPA), were to have a lead role in IBP2 implementation. Explicitly, the NSPA⁵¹ were originally recognised to be the key implementing agency intended to give effect to Chapter Three of the LSDP, related to community development projects (including capacity building, health, education and infrastructure) (refer to Figure 6 below, which outlines the intended implementation framework anticipated to give effect to the IBP2, as contained within the appendices of the IBP2 agreement). In contrast, LMALA were recognised to be the leading implementing agency for Chapter Two of the Plan, connected to environmental damage, disturbance and destruction, or compensation more broadly. Yet while this may have been the intended architecture for IBP2 implementation, and may originally have been anticipated to complement the implementation of the broader suite of development agreements beyond the IBP2, these agreements have not always been given effect to as originally intended. As in the case of the IBP2, LMALA has assumed an expanded role in terms of IBP2 implementation.

⁵¹ The NSPA was established in 2001 as the body to administer NRLLG-funded projects (Bainton, 2010, p. 69).

Figure 6: Summary of the Revised IBP Agreement



(Lihir Gold Limited et al, 2007, Appendix F, p. 16).

Even though the IBP2 signals that NRLLG were to have a recognised role in terms of plan implementation, in effect rationalising their desire to gain access to IBP2 funding for such development, it nevertheless remains questionable whether this alternative implementation framework would produce improved community level outcomes. As it stands, under the Revised MOA between the NRLLG, the PNG State, LMALA and the New Ireland Provincial Government (2007), the NRLLG have the obligation to invest 20 per cent of the total 30 per cent national royalty it receives into community development projects and programmes (2007, Clause 30, p19). Between 2006-2015 this obligation alone equated to the requirement of the NRLLG to invest K74.8 million of the royalties money paid to them, back into community programmes and projects. Given there is very limited evidence of such an investment on the ground, it perhaps signals the potential for further disappointment should additional IBP funding be channelled through this organisation.

Figure 7: An Overview of the Village Development Scheme (VDS)

The Village Development Scheme:

The Integrated Benefits Package (1995) included provisions for development assistance that targeted support to the provision of basic needs, in an attempt to connect mining derived development benefits with the wider Lihirian community. This assistance was referred to as the Village Development Scheme (VDS) and included a commitment to provide village housing assistance, water supplies, electricity supplies, sanitation and waste water disposal. LMC committed K1.5 million to this scheme, and anticipated that this assistance would be facilitated through a VDS committee consisting of core community group representatives. Unable to facilitate this VDS management structure, the NSPA handed the responsibility for implementation back to the company. The company then proceeded to implement the VDS project, deciding to initially focus the use of the VDS funds to support directly affected landowners, taking years for the VDS funding to be used to assist the broader Lihirian population (Bainton, 2010) .

In 2014 the CPI adjusted amount for this fund was K5.7 million. Up until this time, the VDS was the primary company-facilitated development benefit for landowners deemed 'non-affected' by the company. Research suggests that for non-lease area landowners VDS housing is extremely significant. Not only do people aspire to owning a VDS house, but they identify VDS housing as being a sign of community development, which supports *gutpela sindaun* for the family residing in the house.

In late 2014 LGL had signalled their intent to relinquish control of the VDS programme by handing over the responsibility for the delivery of VDS to the Ward level, ultimately transferring responsibility to the NRLLG. As part of this shift the company sought to move Lihirian communities away from kit package housing, to instead support more general forms of housing assistance. This shift would subsequently see the passing of responsibilities to the local Ward level, where current housing allocation decisions are made. It was explained to me by a company staff member that the benefits of this handover included the ability to develop more culturally appropriate house designs, and to deliver better value for money as a result of connecting a wider group of landowners to housing benefits. It was also considered an opportunity to extend the project management capabilities of local government bodies, and of course, to shift the company's focus back to their core project, mining.

Chasing Development

As part of my research on Lihir Island I investigated a (joint initiative) cacao growing development project that was established by LGL prior to their merger with Newcrest in 2010 (refer Appendix 6: The Lihir Island Cacao Growing Project for official publications about the project). As detailed below, this involved following a development project trail, which began at the site of the cacao growing plantation, and ended up in a search for IBP2 project funding that I was unable to locate. This experience, I believe, highlights some of the implications of Newcrest's current governance approach to community development intervention for local level development on Lihir.

Many research participants on Lihir Island recalled that prior to Newcrest's merger with LGL in 2010⁵², community level development support facilitated by LGL had been channelled from the company through community relations staff directly to development projects and beneficiary communities, including those located outside of the mining lease area. Examples of such community level projects included the Sianios Healthy Village Program (aimed at reducing Malaria and Filariasis), women's literacy training, and agricultural development projects.

"They had a programme, 'Let's Work Together', which LGL started. For a long period of time they used the women's representative at the community relations programme. [For example] She would come down and sit with us at the Church's women's fellowship programme. She sat with us and we did a problem analysis. Another Sunday they [the community relations staff] came back and asked the whole community if we wanted to do a community project" (L7).

One of the agriculture development projects facilitated by LGL (Newcrest) included a cacao growing project, established on customary owned land in Kosmiune, Ward 10 (located outside the mining lease area). I was informed by an LGL staff member that the company had provided 25,000 cacao seeds to this project, all of which were planted. The company also taught the landowners how to care for and prune the trees, and committed to providing two cacao fermentaries (dryers) that would be used to dry the harvested cacao. Once the cacao had been dried, the project foresaw the domestic export of the dried cacao, which would later be processed into cocoa and be exported on the international market.

⁵² And it would seem, for a period initially following this merger.

I met with Thomas⁵³, one of the customary landowners of the site, to discuss the project. Thomas explained that while LGL had provided the seedlings for the trees and taught them how to prune the trees, they had never provided the fermentaries. As a consequence, at the time of my research on the cacao plantation, when the cacao trees were in full fruit and ready for harvest, the trees had never come to be harvested. Thomas, who was clearly disheartened, explained that the fruit was now rotting on the trees, because there was no point picking it if they didn't have the fermentaries necessary to dry it⁵⁴.

“The company have promised, but they are not coming back. They have not fulfilled their promise” (Thomas, Ward 10).



Photo 2: Rotten Fruit. A photo of rotten cacao, taken at the Ward 10 Cacao Plantation (October, 2014).

Following my visit with Thomas I met with a member of the community relations team to discuss the project. I was advised that the company was trying to help the people willing to think about the future:

⁵³ A pseudonym.

⁵⁴ I later became aware of an alternative labour intensive fire drying process was used in Rabaul to dry cacao.

“We started off with 25,000 hybrid cacao seeds. It’s in the ground now. If under good management, production will start maybe next year... I have just asked the [Local Level] Government to provide them with fermentaries... But they have no funds there at the moment, so LSDP is going to support them now. I got the message yesterday that they [LSDP staff] are going to Rabaul to get them next week” (LGL/Newcrest, Staff Member).

According to the same LGL staff member, the funding for the fermentaries had actually already been provided by LGL, being given to LMALA over a year ago. With this new information I then proceeded to discuss this matter with a member of LMALA’s staff. Whilst in the LMALA office I was shown a quote for the two fermentaries for the sum of K40,430, but was advised that LMALA did not have the necessary funds to purchase the fermentaries, and that given there was no funding, there was obviously no intent to travel to Rabaul to purchase them. On return to LGL office I followed-up the assertion that LGL had already paid LMALA funding for the fermentaries, but with a different LGL staff member. Once again, I was advised that funding had been provided to LMALA to cover the cost of the fermentaries, “...if not within the most recent provision of IBP2 funding, then the time before”. Assisted by a company staff member I then proceeded to search through the details of the agreed LSDP expenditure budget transferred to LMALA for 2012 and 2013 but I could not find any reference either to the fermentaries, nor any funding amount sufficient to cover the cost of the fermentaries that was allocated to an agriculture project or any seemingly possibly related project.

“... they [members of the community] know when it goes there [to LMALA] it never goes to them. When it goes to LSDP it will never help them out. They always put it on other projects” (LGL/Newcrest, Staff member).

“... I should say, whatever the company decide to give to the community or the people, I think it should be handed straight out from the company to the community, not to the government, not to LMALA or the LSDP. It should go straight out from the company house to the people...” (L4).

As I concluded my search for the development funding, I settled on there being two plausible scenarios that might explain the missing funding. The first was that the funding for the cacao fermentaries had been transferred to LMALA/LSDP as part of a lump sum payment but in the absence of there being any detailed description of the purpose of this funding, it had become lost and ultimately absorbed by an alternative purpose. The other was that the money had

never been transferred to LMALA/LSDP. But, it would seem, neither one of these theories could be proven⁵⁵. While in this case I have no doubt of the good intent behind LGL's commitment to Thomas to support and fund the start-up costs associated with the cacao growing project, this example of 'chasing development' illustrates that good intent alone, cannot facilitate meaningful development. As experienced by Thomas and the other customary landowners of the cacao plantation, LGL's transition away from direct forms of community intervention to funding community intervention ultimately managed by LMALA, highlights some of the transparency flaws inherent within this governance arrangement. It also reveals how detrimental these flaws may be for the achievement of meaningful development.

Detached from Development

Although Newcrest (LGL) continue to directly engage with lease area landowners as part of the delivery of their corporate obligations, their approach to community development beyond these fixed commitments appears to be one of corporate detachment,⁵⁶ facilitated through the devolution of development responsibilities to LMALA. On the surface, the devolution of development responsibilities might appear to be a means of supporting the autonomy of local landowners and possibly empowering landowners to determine their own locally understood approach to 'community development'. However, as evident within this research, this governance approach has consequences for the extent of mining-derived development benefits reaching the wider Lihirian community.

"The net effect of the current implementation arrangement of the LSDP has resulted in short comings in supporting the wellbeing of the wider community outside the affected area" (L24).

Outwardly, LGL's detached approach to the governance of discretionary community development components shifts the responsibility for IBP2 funded development intervention to LMALA. It is possible that this is an attempt to transfer the accountability for development programmes and projects, and accountability for the general lack of meaningful forms of development intervention, away from the company. For Lihirian landowners beyond the

⁵⁵ Approximately 18 months later I returned to the Lihir Island and was advised by a community member that the Local Level Government had ended up funding and supplying a fermenter to the Cacao Plantation in Ward 10, unfortunately I did not get the opportunity to confirm this.

⁵⁶ I draw from Cross's (2011) discussion on 'Detachment as a Corporate Ethic' in relation to the diamond industry. Cross usefully shows how forms of corporate detachment can be used as a means for distancing corporate activities from ties of obligation and reciprocity.

mining lease area, where development benefits are extremely slow to emerge, or where they are not resulting from the IBP2 funding, landowners commonly consider LMALA practically responsible for the lack of community level development.⁵⁷ There is, nevertheless, a general awareness that Newcrest's merger with LGL has resulted in a withdrawal of development support outside the lease area.

"... LMALA are not sharing equally the benefits from the mine. Given that, in the long-run the LSDP won't be a success. Gutpela sindaun and community development won't be achieved" (L10).

"When Newcrest took over, things stopped working as they were before. For example, previously we had access to medical supplies through aid posts; now that service is denied" (L25).

While Newcrest's (LGL's) detachment from the management of IBP2 development funding (beyond immediate lease area landowner responsibilities and concerns) may be rationalised from a corporate perspective, it is argued here that the current IBP2 governance arrangement fails to align with the provisions of the IBP2 agreed by LGL and LMALA. By signing into the IBP development contract, LGL make a commitment to support the people of Lihir, both within and beyond the mining lease area. From this perspective an established level of accountability for promoting development can be observed as residing with LGL. Consequently, by transferring the management of IBP2 development funding to LMALA, an organisation that is failing to translate development funding into development benefits for the wider community, accountability issues emerge with respect to whether or not Newcrest (LGL) are honouring their side of the agreement. Ensuring that IBP2 funding translates into meaningful forms of community level development thus emerges as a critical issue for the success of corporate development intervention on Lihir.⁵⁸

⁵⁷ It is also noted however, that many hold Local Level Government accountable for broader forms of Lihirian development and question why the local government have not reinvested mining royalties in resources that will support the long term wellbeing of all Lihirians.

⁵⁸ The governance of development support is an issue broadly acknowledged by LGL as part of the review of the IBP2 (Lihir Gold Limited, 2012).

A Quandary for Lihirian Development

“[D]espite the input of significant funds, human and institutional resource capital, training, commercial opportunity and equity there has been limited progress towards realising the Lihir Destiny” (LGL, 2012, p. 4).

Newcrest’s (LGL’s) ultimate priority is the production of gold, and this appears to have itself contributed to the limited progress the company has made in promoting parallel, balanced, sustainable and stable development on Lihir. Even though there may be a sincere desire to promote meaningful forms of development, including development that ‘flows to the family level’, and which is realised ‘on the ground’ and ‘at the kitchen table’ (Lihir Gold Limited, 2012, p. 25), in order to secure mining operations and the associated access to mining lease area land, the company must maintain a social licence to operate with the immediate mining lease landowners. On Lihir, at the time of writing this, the immediate ability to halt mining operations resides with LMALA, as documented within their GorGor Policy.

Gorgor is a traditional dispute mechanism used on Lihir that involves a twisted stem of ginger plant (gorgor) being placed on a stick or tree to signal that a taboo is in place within a specific area (Lihir Mining Area Landowners Association Inc., 2008). Even though gorgor may be erected for a number of reasons, most commonly it is used to signal a dispute over land ownership or to restrict land access, or access to fruit trees or part of the coastal reef (ibid.). In the context of mining operations, gorgor may be applied to signal dispute over mining operations or agreements and can prevent access to and use of land and infrastructure for mining purposes (ibid.). Even though, traditionally, clan leaders have had the ability to erect a gorgor on Lihir, LMALA’s gorgor policy in effect provides LMALA the overriding ability⁵⁹ to determine the authenticity of a gorgor placement, stipulating consequences for policy breach⁶⁰. As stated in the policy: “A person/s who places a Gorgor without following this policy or who ignores the Committee’s decision will pay the customary penalty of killing one or a number of pigs. The number of pigs will be determined by the Committee” (ibid., Clause 10)⁶¹.

⁵⁹ Although the gorgor policy provides for a Dispute Resolution Decision-making committee, which may consist of up to seven voting members and allows for majority rule decisions, the majority of the Committee is made up of LMALA representatives and people nominated by LMALA to be on the Committee. This potentially has the ability to result in a bias voting majority. On this basis I argue that overriding ability to determine the authenticity of a gorgor placement may rest with LMALA.

⁶⁰ The MRA however make clear that any act that obstructs the execution of a right conferred under the Mining Act 1992 is an offence (Mineral Resource Authority, date not stated).

⁶¹ According to an Island resident, this is the cost of holding a feast and is a cost that no one, alone, wants to pay.

Given that LMALA holds the power to halt or facilitate mining operations and Newcrest (LGL) directs significant IBP2 funds through LMALA, the relationship between LGL and LMALA appears to symbolise a patron – client dynamic. As described by Scott “[t]he patron-client relationship – an exchange relationship between roles – may be defined as a special case of dyadic (two-person) ties involving a largely instrumental friendship in which an individual of higher socioeconomic status (patron) uses his own influences and resources to provide protection or benefits, or both, for a person of a lower status client, who for his part, reciprocates by offering general support and assistance, including personal services, to the patron” (Scott, 1972, p. 92). As argued by Scott, such a relationship demands reciprocity, with each party providing ‘a service that is valued by the other’ (Scott, 1972, p. 93).

Consequently in cases where the more individualistic or lease area focused interests of LMALA elite collide with wider Lihirian expectations and desires for development, it can come at the cost of wider forms of Lihirian development. At the time of my visit, LMALA’s development expenditure and allocation policy for health reflected this tension (refer to Chapter 9). While there may be no simple solution for addressing this development dilemma given the established patron-client dynamic that characterises the relationship between LGL and LMALA, LGL’s contractual obligations to support meaningful forms of Lihirian development nevertheless remain. In light of these corporate commitments, I argue that detaching from development responsibilities may act to deflect immediate attention away from the company’s obligations to provide more meaningful support of Lihirian development.

7.4 Benefit Sharing and Development Agreements for the Simberi Gold Mine

On Simberi Island St Barbara’s (SGCL’s) benefit sharing, development and compensation arrangements and commitments associated with the Simberi mine are framed by:

- The Compensation Agreement (1996), established between SGCL and the landowner leaders of people owning land in the immediate project area.
- The Memorandum of Agreement (MOA) (1996), established between the State, the Simberi Gold Company Pty. Ltd, the Simberi Landowners Association (SLA)⁶² on behalf of the Simberi people including landowners of the Simberi Mining Lease area,

⁶² In the MOA 1996 it was established with the *Simberi Landowners Association (SMA)*, but this Association has evolved into the *Simberi Mining Area Association (SMAA)* within the draft MOA (2015). Throughout this discussion I refer to the ‘SMA’ when specifically refer to an aspect of an agreement established with the SMA, but the SMAA when speaking about the current context.

the New Ireland Interim Provincial Government and the Tabar Community Government.

- The revised MOA (2015), which up until December 2015 remained in its draft form and awaiting sign-off by the State.

The two 1996 agreements provide a contractual foundation to the forms of corporate development intervention undertaken to date. The scope of SGCL's community development and benefit sharing commitments detailed within these agreements is outlined below, followed by a review of the practice of corporate - community development support, as well as consideration of the draft MOA (2015) and its potential implications for local development on Simberi Island.

The Compensation Agreement (1996) recognises the likelihood of negative impacts on villages within the mining lease area and commits SGCL to the payment of financial compensation for social nuisance and inconvenience, damaged land, lost land, the loss of trees, crops and plants, for coronus (a coral-derived aggregate used for roading purposes), and for the disturbance to cultural sites. It also commits SGCL to the provision of compensation for water discolouration within creeks and bays (a total of K1200 per annum to affected 'communities'). It also includes the following commitment to communities affected, or likely to be disadvantaged by, discoloured or dirtied creeks and bays as a result of sediment related to company activities:

Clause 3.1 (a) 'Rain-water supplies have been and will continue to be installed, with tanks, roofing-iron, guttering, down-pipes and cement being donated by SGC. In such situations the water in streams and bays are generally clean for drinking or bathing except during rainy periods when such water becomes discoloured by stirred-up sediment. The installed tanks, however, are replenished with alternative, clean rain water during these periods of rainfall';

(b) 'During mining construction and operation, the communities using Monun Creek, Lava Creek and Bekou Creek may suffer a greater degree of water discolouration. SGC shall provide piped water supply and construct facilities for showering and washing clothes, prior to any such adverse impact occurring'.

In addition to the compensatory aspects of the agreement outlined above, the agreement commits to providing special community assistance to the communities within the immediate project area, in the form of an annual grant payable to the villages of Napekur, Monun and

Bueri, for general villages welfare purposes. The amounts (detailed below) are to be paid directly into the bank accounts of the SLA representatives of the respective communities, whom are then deemed responsible for the distributing this appropriately amongst the communities concerned (1996, Clause 9):

- Napekur Village: Four SLA representatives receive K16,000 per annum,
- Monun Village: Two SLA representatives receive K8,000 per annum,
- Bueri Village: Three SLA representatives receive K12,000 per annum.

In contrast to the Compensation Agreement (1996), the MOA (1996) is a development agreement that commits corporate development support to community health, roading, employment and training, public telecommunication services, the promotion of business spin-offs, and also includes compensatory development provisions relating to community water supply protection and reinstatement, as detailed below:

- To provide an alternative water supply to any village or hamlet whose normal water supply is impacted by the project. This alternative water supply is to be provided prior to the adverse effect occurring (1996, Clause 19).
- To continue to operate a company health clinic at Pigiput Plantation, open to residents of Simberi Island (1996, Clause 20).
- To upgrade the road from the airstrip at Pikung Plantation to Simberi Village via Pigiput Plantation to a basic rural road standard within four years of the mining leasing being granted (1996, Clause 15).
- To provide employment and training opportunities as part of the operation of the project, giving immediate preference to the people of the Tabar Island area, and subsequent preferences to the people of the New Ireland Province followed by the people of PNG (1996, Clause 24).
- To establish a public telephone service subject to card payment for the people of Simberi (1996, Clause 18).
- To encourage Local spin-off business development opportunities (1996, Clause 25).

Through signing the MOA (1996) on behalf of the people of Simberi Island, the SLA representatives agree to not disrupt the mining project for the life of the mine (Clause 30(b)). Further, through their Compensation Agreement (1996), the landowners accept the loss of all rights to, or associated with, the land to be occupied for mining purposes, including support

facilities, and the interference to their lives and traditional activities caused by the mine (Clause 11).

7.5 Development Intervention in Practice - SGCL

Table 9 provides an overview of the forms of community level socio-economic development support facilitated by St Barbara (SGCL).

Table 9: An Overview of Direct Forms of Community Level Social Development and Economic Support supported by SGCL (St Barbara) on Simberi Island.

Employment
Over 500 local people are reported as being employed by the Simberi Gold Project (retrieved from http://www.stbarbara.com.au/sustainability/community/ on 3/8/2015) ⁶³ .
Royalties⁶⁴
The company also has paid more than K8 million in royalties since the start of production in 2008 (retrieved from http://www.stbarbara.com.au/sustainability/community/ on 3/8/2015). Based on this amount, a total of K4.8 million can be estimated to have been paid to the Simberi Landowners Association since 2008.
Education
The provision of a flexible learning resource/education centre, providing opportunities for Island residents (including but not limited to employees) to pursue their studies between the levels grade 9 and 12. If a student is incapable of meeting grade 9 standards, remedial lessons are provided to bring the student up to a grade 9 learning standard. Provision of a community school bus service. The 'Tabar Island Community Scholarship Program', supports two annual High School scholarships (to complete years 9-12); two annual Tertiary scholarships each for a maximum of four years within any PNG institution; and 15 apprenticeship programmes.
Water Supply
The installation of gravity fed water hoses to villages of Simberi Island, and the establishment of gravity feed showers within select lease area villages.
Munun Landowner Relocation
Underway at the time of research, the Munun village relocation project involves relocating a group of landowners impacted by flooding.
Health

⁶³ However it is unclear whether 'local' is used to refer to the regional or national level.

⁶⁴ As required by the Mining Act 1992, a 2 per cent royalty is paid by SGCL to the State. Sixty per cent of this royalty is distributed to the Simberi Landowners Association 'for the benefit of the people of Simberi' (1996, Clause 3(a)), and 40 per cent is paid to the Tabar Island Community Government for the benefit of the Tabar Island Group (1996, Clause 6 (b)).

Provision of a company funded health clinic, through which company employees have access to a medical doctor, nursing support and first aid. Community residents are able to access this facility via a referral system from the government funded Medical Centre.

Provision of a company funded health extension officer to support the community Medical Centre at Maragon.

Financial support for the upgrade of the Maragon Medical Centre in 2011⁶⁵.

Providing emergency medivacs to non-staff community members as and when necessary, which in 2014 cost the company in excess of US\$50,000 (for Kavieng and Port Moresby medivacs)

Providing for measles vaccinations for all employees on the island and surrounding islands in 2014.

Waiting for Affirmative Development

Beyond forms of economic benefit gained through employment and mining royalties, the St Barbara (SGCL) approach to development intervention can be described as affirmative, as well as ameliorative (or negative) in nature. As already discussed in Chapter 3, the idea that both affirmative and negative injunction duties exist in relation to development intervention has been theorised by Idemudia (2009b). “[W]hilst affirmative duties require the pursuit of moral and social good, negative injunction duties entail avoiding and correcting social injury caused by the corporation” (Idemudia, 2009, p. 94). As negative injunction duties may protect others from harm, and by doing so can help to ensure companies do no harm, Idemudia argues that, first and foremost extractive sector companies should attend to negative injunction duties, as no amount of affirmative forms of development intervention can compensate for the loss of subsistence or livelihood ability (2009b).

Through enhancing educational opportunities via SGCL’s flexible learning resource/education centre, and by extending the capacity of health care services on Simberi Island through directly funding a health extension officer to assist the government funded Maragon Medical Centre, St Barbara’s (SGCL’s) development intervention can be observed as supporting the wellbeing of the people of Simberi and providing social development services that are widely drawn on by residents within the Island community. However, whilst affirmative in nature, research participants recognise the limited scope of corporate intervention on Simberi, and given the established impacts from mining, they often question the adequacy of mining company intervention. In addition, it is noted that the company’s efforts to support community health do not align with their commitments made to health within the MOA (1996). As discussed in greater detail in the following chapter, the MOA 1996 (Clause 20) specifies that

⁶⁵ The upgrade was primarily funded by the MRA and whilst I am unaware of the full scope of the upgrade or the company contribution, I was advised that the Company undertook the plumbing for the development, and that the company contributed a substantial sum towards the upgrade (around K400,000).

the company health clinic at Pigiput is to be open to all Island residents. At the time of my visit in December 2014, SGCL's health clinic was only accessible to company staff.

In terms of the ameliorative or negative nature of SGCL development functions, SGCL's attempt to restore community water supplies previously impacted by mining, and also to relocate landowners impacted by mining derived flooding, can also be observed supporting the wellbeing of landowners impacted by mining. On Simberi, these negative or remedial forms of development intervention are critical. Nevertheless, while providing forms of development intervention that are valued by landowners on the Island, research participants question whether or not the extent of SGCL's development intervention is sufficient to remediate the environmental impacts brought about by mining. Locally meaningful forms of mining company community support therefore, do not necessarily constitute meaningful development. This is explained by the understanding of 'meaningful development' established in Chapter 6, which suggests that meaningful development must advance people's living standards by bringing tangible improvements to people's lives. Given that the negative or ameliorative nature of this form of development intervention, for those landowners who have experienced a reduction of living standards through the loss of their water resources and/or their homes, ameliorative forms of development intervention may not be considered a tangible livelihood improvement but merely the first step in remedying mining impacts. As suggested by Idemudia (2009b), only by building on negative injunction duties with adequate affirmative development duties may companies be able to *add value*, and consolidate value added within communities.

The SMAA's Development Commitments

"We would like the people to stand together and do things that will benefit the community, but the people can't unite because there are people with selfish thoughts that prevent this" (S16).

On Simberi Island, research participants appear to be waiting for additional forms of affirmative development to eventuate from mining operations, either directly from forms of corporate development intervention or more indirectly, through development programmes and projects funded by mining royalties channelled through SMAA. Within the MOA (1996) the SMA agree to accept royalties for the benefit of the people on Simberi and commit to using these royalties for projects and services that will benefit the people of Simberi (Clause 27). As specified within Table 7, based on royalty information publicly released by the SGCL, it is estimated that since the commencement of gold production in 2008, over K4.8 million has

been channelled to the SMAA for the benefit of the Simberi people. Yet the only substantive evidence of such a development programme or projects observed at the time of my visit, was the physical existence of the technical SMAA team members employed to establish these development projects. It was apparent that whilst there were many ideas and plans for development, that the SMAA's development programmes and projects existed in the form of unimplemented ideas (S24).

"[T]here is problem concerning that lack of development. Although the company is seen not doing anything, the land owner association is not planning and is not managing whatever resources it has to develop the place" (S14).

"The company's got a role [in community development], but it plays its role only if we get the SMAA people organised. The company is ready to help, to give benefits, but we are not organised. The leaders of the people on the Island are not organised. Not organised meaning, there is division between the leaders... [in the form of arguments over who wants to be the leader]. It all comes back to power. When we keep on doing this, we are wasting our time. The company is going to go and finish at any time and we might be left with nothing" (S18).

The Draft MOA 2015

In contrast to the MOA 1996 which commits the SMA to using the mining royalties to 'benefit the people of Simberi', the draft MOA 2015 specifies that from the 60 per cent⁶⁶ of the 2 per cent national royalty received by the SMAA, it shall be distributed and allocated in accordance with the following⁶⁷:

- 20 per cent is to go to the Madar Investment Trust Fund, which is a trust and investment fund established by National Government for the Tabar Island Group, and
- 40 per cent to be distributed between the cash component, projects and SMAA administration (Draft MOA, 2015, 29.1(a)(i)).

⁶⁶ This aspect of the draft MOA at first glance is confusing: Although the SMAA are set to receive 60 per cent of the 2 per cent mining royalty, the agreement then specifies SMAA allocations relative to percentage divisions to 60 per cent instead of 100 per cent. In other words, of the total money received by the SMAA 67 per cent is allocated to the cash component, projects and SMAA administration. The other 33 per cent is allocated to go to the Madar Investment Trust Fund.

⁶⁷ To clarify, the SMAA receive 60 per cent of the 2 per cent mining royalty paid to the State. The Draft MOA allocates the remaining 40 per cent to go in equal (10 per cent) shares to the Big Tabar Landowners Association, the Tatua Landowners Association, the Sentral Niu Ailan Local Level Government and the New Ireland Provincial Government (Draft MOA, 2015, Clause 3.1).

Within the draft MOA it is however unclear how the '40 per cent' royalty funding is to be divided between the cash component, projects and SMAA. Although the MOA specifies how the cash component is to be distributed once allocated, this remains an abstract amount given the agreement does not specify what the allocated cash percentage should be. However, whatever the cash amount is determined to be, it is to be distributed in accordance with the following formula:

- Category 1 – ML136 Land Groups (40 per cent)
- Category 2 – Easement (20 per cent)
- Category 3 – Prospective Land (20 per cent)
- Category 4 – Project area (mine pit) (20 per cent) (Draft MOA, 2015, 29.1(c)).

Whilst these specific funding entitlements are vague and allow for a high degree of flexibility associated with funding allocation, based on these cash fund formulas it appears that only landowners directly affected by mining qualify for cash entitlements through the cash component of royalties. This marks a change from the original MOA (1996), which more broadly directs mining royalties to benefit the people of Simberi via projects and services.

At face value the draft MOA (2015) is more extensive than the MOA (1996), specifying a range of wealth creation, infrastructure, social service, capacity building, environmental provisions and commitments relevant to St Barbara (SGCL). Providing the contractual framework for the future of mining company development intervention on Simberi, the provisions of this MOA have the potential to inform the extent to which SGCL (St Barbara) contributes to meaningful forms of development on the Island. Based upon the understanding of meaningful community development established in Chapter 6⁶⁸, provisions of the agreement relating to health, education and infrastructural development emerge as particularly significant.

As recognised by O'Faircheallaigh (2013), historically one of the issues with community development agreements within the mining industry is the use of general statements and aspirational goals, which can weaken the accountability of a company to deliver on their development commitments. As O'Faircheallaigh argues, vague corporate commitments that diminish corporate accountability are problematic because once an agreement is signed there

⁶⁸ Which, to reiterate, recognises the importance of a culturally embedded form of development that supports *gutpela sindaun*, and which advances people's living standards by bringing tangible improvements to people's lives across each Island community.

may be a reduced corporate incentive to invest in development support. In the case of the draft MOA (2015), it appears that potential ambiguity may exist over SGCL's (St Barbara's) commitment to deliver the infrastructure projects and the social services detailed within the agreement (Clause 20 and 21). This includes the company's commitments related to the establishment of a rural electrical programme, a reliable telecommunication service, and a water supply and sanitation system for the Island. Whilst as goals these provisions may be clear, the phrasing of SGCL's (St Barbara's) development commitment to deliver on these goals remains weak. For example, within the Agreement SGCL's commitment to infrastructure development is as follows:

“Subject to a return to profitability of SGCL and the completion of detailed feasibility studies to ensure each of the projects are within the financial capacity of the company to undertake, all infrastructure projects relating to this Agreement shall be scheduled for the development and implementation in accordance to the Infrastructure and Socio-economic Development Plan annexed to this Agreement...” (2015, Clause 20(a)).

From a plain reading review of this clause it is clear that the company must first return to a profitability position before they consider delivering on this development commitment. However even if they are operating in a profitability position, they must then complete feasibility studies for each of the infrastructure projects to determine if they are within their 'financial capacity' to implement. This in itself relies on the subjective judgment of the company regarding feasibility. Finally, only upon these prerequisites being met will SGCL then 'schedule' infrastructural projects for development and implementation. This potentially leads to a third implementation challenge, that 'scheduling' for implementation may not necessarily equate to actual project implementation. Nevertheless, if implemented, and if there is the capacity to manage, maintain and run these infrastructural programmes on the Island beyond the life of the mine, then these draft provisions have the potential to make a significant contribution to meaningful forms of local level development.

As discussed in Chapter 6, akin to infrastructural development, education and health also emerged as integral to the concept of 'development' held by research participants. Interestingly, the draft MOA (2015) does not specify any direct corporate level commitments to

strengthen government-run health care or education services on Simberi⁶⁹. A commitment is nevertheless made to establish a company-funded scholarship programme in consultation with the SMAA, which is to be applicable to those students graduating at Grade 12 level within the Tabar Island group in their pursuit of technical and tertiary studies (2015, Clause 22.3). Within the draft agreement, the SMAA similarly make a commitment to liaise with the company to develop programme details and to support the corporate implementation of the program. Although the MOA was yet to be signed at the time of my visit, it was apparent that neither the company nor the SMAA had discussed this matter. Without input from St Barbara (SGCL), the SMAA had already developed the content of a scholarship programme they intended the company to fund. St Barbara (SGCL) on the other hand, were presently satisfied with the scholarship programme already in place (see Table 7). While this scenario may possibly do nothing more but highlight a one-off miscommunication between the company and the SMAA, or more positively, signal the good intent of the SMAA to develop locally meaningful community support programmes, it may also signal the uncertainty that exists about practical MOA (2015) implementation and governance. As suggested above, it seems that issue of miscommunication between the company and SMAA has the potential to be divisive for the delivery of meaningful community development support in the future.

7.6 Conclusion

The purpose of this chapter was to detail the scope of mining company development intervention on Lihir and Simberi, describing both the practice and governance of development intervention on each Island. In doing so, it has revealed some of the causes for the disjuncture between corporate forms of development intervention and local appreciations of meaningful development. On Lihir, it is observed that corporate detachment from 'discretionary' forms of corporate development intervention clearly impacts the effectiveness of development funding, and this is identified as a factor bound to the complex LGL – LMALA relationship dynamic. On Simberi, questions over the extent of ameliorative forms of development practice are signalled, alongside the need for affirmative forms of development intervention in order for SGCL to add value within the community. In both case studies, the extent to which landowner organisations are truly representing the people of Lihir and Simberi exists as an issue limiting the equitable distribution of the benefits of mining. The following chapter explores the implications of the practice and governance of development intervention,

⁶⁹ That being said, providing power, water supply and sanitation across Simberi would inevitably support these aspects of development, and commitments to health and education are made within the agreement by the New Ireland Provincial Government (2015, cls 14 and 15).

providing a nuanced appreciation of the challenges faced by landowners living with mining on Simberi and Lihir islands.

8. Community Narratives of Mining Intervention

In the following discussion a series of case study narratives are presented to reflect landowner experiences of mining company community development intervention, and experiences of mining company intervention more broadly. These narratives provide a platform for the analysis of mining company development intervention advanced within subsequent chapters. By considering these narratives we see how the social and environmental impacts of mining operations shape local experiences of development intervention. The chapter begins by recognising that a sense of entitlement exists amongst customary landowners across Lihir and Simberi. This is grounded in a sense of *kastom*, reciprocity and redress, and reinforces the significance of mining operations to landowners (as discussed in Chapter 6). Landowners feel that they have a right to benefit from mining intervention, and this sense of entitlement extends to 'affected' and 'non-affected' landowners alike. The narratives of development intervention expressed by both of these groups highlight the relevance of remediation, livelihood security, land rights, environmental damage, living standards, health and education for wellbeing and development within the research context. As theoretically developed here, these narratives can be seen to form the basis of a set of locally significant Community Wellbeing and Development Rights.

8.1 Acknowledging the Effects on the 'Non-Affected'

Across Simberi and Lihir, landowners that are deemed technically 'affected' and 'non-affected' by mining according to St Barbara (SGCL) and Newcrest (LGL), commonly believe that they are affected by mining, and that therefore, they have the right to benefit from it. Outside the respective mining lease areas, customary landowners rationalise their sense of entitlement on the basis of experiences of adverse social and/or environmental impacts. They claim that they have been impacted environmentally by the failure of fruit trees to produce fruit as they had done prior to mining, by the rotting of food crops in the ground and the loss of marine life as a consequence of mining, and specifically on Lihir Island, by localised changes in weather patterns as a consequence of air pollution related to the release of gases caused by mining the geothermally active volcanic crater. The social impacts often cited by Island residents include the psychological impacts of mining connected to the disintegration of family structures as a result of infidelity in the work place, and the adverse community health impacts brought about by lifestyle changes occurring since the advent of mining, such as increased rates of diabetes and alcoholism.

In a meeting between St Barbara (SGCL) staff and members of the Simberi Village community (located outside the mining lease area on Simberi Island), a landowner challenged the legitimacy of the mining lease area boundaries, effectively arguing for the formal right of landowners to be recognised as affected by the company. He stated:

“I want you to take note about what I said about this line, this line between mining lease and non-mining lease areas. This Island is so small, yet this small Island is considered [divided into] a mining and non-mining area, but what happens within the mining area also affects the non-mining areas. I want to tell the people in the office, that we are called the ‘Simberi Mining Area’. Looking at the families and the Clan living in the non-mining area, they live here, but they have land within the mining area [that is technically recognised by the company as being affected]. Now when you have this system of calling us mining and non-mining area, it is no good for us because things for us orientate around kastom. We have brothers and sisters on both sides, when we have kastom here, they come to us here from the other side... I ask, how did you come to divide this island between the mining and non-mining lease area? Can you tell me how far away the mining area is located? When it's another island, then you can say it's a non-mining lease area. Simberi Island is very small” (S13).

As noted in Chapter 2, pursuant to Section 2 of the PNG Mining Act 1992, the term ‘landholder/s’ refers to any person who is recognised as an owner of customary land. In accordance with the Mining Act, being a ‘landowner’ technically entitles a person to receive compensation for the entry into, and occupation of ,mining lease land for exploration, mining or operations ancillary to mining (The Mining Act, 1992, s154). These provisions are, in effect, used by mining companies to limit the consideration of an ‘affected’ person to a person or people with lands affected. However as further specified in section 152(2) of the Act, the provision of compensation may extend to the following situations:

- a) being deprived of the possession or use of the natural surface of the land; and
- b) damage to the natural surface of the land;
- c) severance of land or any part thereof from other land held by the landholder; and
- d) any loss or restriction of a right of way¹, easement or other right; and
- e) the loss of, or damage to, improvements; and
- f) in the case of land under cultivation, a loss of earnings; and
- g) disruption of agricultural activities on the land; and
- h) social disruption

It is noted, however, that on Lihir Island the recognition of affected landholder status is not solely limited to include those with adverse impacts on their land and is recognised to extend to the customary landowners of Malie Island. Malie Island landowners were recognised as ‘affected landowners’ by LGL in 2000, after they stormed the mine’s community relations office in protest of the impacts of deep sea tailings disposal on their coastal environment (Bainton, 2010).

8.2 Intervention and Development, Kapit Village, Lihir Island

In 1995, customary landowners of the Kapit Village, Lihir Island, were relocated to accommodate large scale mining operations. Because the village area was not being immediately accessed by the company for mining purposes however, following landowner relocation residents slowly began to return to the village⁷⁰. At the time of my research in 2014, the Kapit Village area remained unmined and partially occupied by village residents⁷¹, existing as an outstanding issue for Newcrest (LGL). In contrast, the pressing issue of concern for the Kapit community was failure to secure access to the full suite of benefits and entitlements that they understood would eventuate from mining. Although the scope of these anticipated benefits remained unspecified, I was advised that Kapit landowners were actively attempting to secure the corporate recognition of development entitlements. A Kapit Village representative explained that Kapit landowners had not received the full extent of entitled benefits, and this was a suspected consequence of the company channelling monetary benefits to LMALA instead of the Kapit people (L9). Landowners were also concerned about the loss of their livelihoods resulting from the loss of their land, and the high degree of uncertainty this created for their post-mining future (L10).

“Money may have been given, but it didn’t reach us. Instead, it was probably diverted to those in charge...LMALA officials. The company should look at the agreements and have something better for the relocatees, we should be getting the benefits - not LMALA. The benefits agreement doesn’t say anything about LMALA getting the benefits” (L9).

“The entire Kapit village has been relocated. Current road conditions are bad, and even the compensation payments as part of the 1995 [IBP] agreement review, which marginalised the Kapit people, are still outstanding. The issue for us is

⁷⁰ In 2010 this triggered a secondary round of landowner relocations to be undertaken by LGL.

⁷¹ The exact number of occupants was unknown by the researcher.

there is no gardening area, and in the long run lives will be affected. The reef (fishing area) has also been backfilled” (L10).

At the time of my research in 2014 Newcrest (LGL) were in the process of releasing additional funding to support relocated Kapit landowners, which included the second generation of landowners. This funding distribution came nearly 20 years after the initial landowner relocation process and, perhaps not coincidentally, in the face of the company’s immediate intent to access the Kapit area for mining purposes. Compensation included funding payments to Kapit landowners for housing maintenance and replacement, with payments being between K100,000 and K200,00 per relocated family. In addition, a Medium Term Investment Strategy was established for relocated landowners, for which a range of funding eligibility scenarios applied. I was advised that the maximum amount landowners were eligible for was K100,000, that 30% of this amount was to be paid in cash, and that the remainder was to be invested in some way. The company did not assume a direct role in the provision of guidance or advice regarding investment options for landowners, as this was considered to extend beyond their corporate role⁷².

Notwithstanding the existence of this corporate funding intervention, it was apparent that Kapit landowner concerns and grievances over the extent and distribution of mining benefits and entitlements remained unaddressed. Landowners were uncertain about their post-mining futures and some questioned whether there had ever been any formal legal agreement/contract in place between the mining company and Kapit landowners to the mine pit area. Issues persisted regarding the allegedly poor construction of relocated landowner housing and ill-feeling endured over the scope of original pre-mine community consultation and engagement. A Kapit landowner, who wished to remain anonymous, explained that the original post-mining consultation process had failed to effectively convey the anticipated extent of mining impacts on the Kapit community, suggesting that such impacts were actually implausible from a community perspective.

“When the company came, when they were originally making their awareness, they told the people that they would dump the soil in the reef... That it was part of the Plan, but the people, they didn't understand... They didn't realise they were going to dig the gold under the sea and that they would lose their sea... How could they”? (Kapit Landowner, Anonymous).

⁷² Instead, if investment advice was sought by landowners, the company encouraged landowners to seek assistance from Lihir Business Services.

This Kapit community narrative thus highlights how the security of land rights, the restoration of community livelihoods and the need for remediation collectively exist as fundamental wellbeing and development concerns held by Kapit community members. It also illustrates how experiences of mining company community development intervention exist amidst broader community experiences connected to mining operations.

8.3 Water Supply: A Development Priority on Simberi Island

In late 2014 St Barbara (SGCL) was actively engaged in undertaking a water supply project for the villages of Simberi Island. The project involved the connection of gravity fed water hoses to villages, and the establishment of shower blocks in some instances. The company manager identified water supply and associated shower blocks as being a personal priority for community development on the Island, due to the benefits of this project being shared by the entire community, with water supply and shower blocks being particularly of benefit to women through improving levels of health, hygiene and privacy (S21). It also became evident through the course of this research that access to water was a community wellbeing and development priority for landowners on Simberi. As described by a research participant, the identification of water as a development priority came from the Simberi people, not the village leaders because the village leaders 'were not sitting together to address issues of community development' (S11).

On Simberi Island it was commonly recognised that improved water access was the immediate key benefit for communities resulting from mining. The previous owners of the Simberi mine, Allied Gold, had also had a role providing water access to communities, although my research suggested that this process had been piecemeal and had historically excluded many villages. Criticism also existed in the context of the current St Barbara (SGCL) community water supply project, with there being a divergence in water project priorities between the company and community. While the company were focused on installation, the community focus was on securing appropriately located and reliable forms of accessible potable water. For example, while a company representative informed me that Simberi Village was the only village yet to receive a gravity-fed water connection, a number of people from around the Island advised me that their hamlets were yet to receive a water connection. Some people were dissatisfied with the location of established connections, on the basis that they were too close to the road. In another instance, the water connection provided by the company had produced undrinkable water due to its metallic taste, and in Lava Village the water connection established by the company had failed to produce any water at all. Upon questioning a Community Relations Department staff member about the allegedly failed Lava

Village water connection, this was confirmed. The issue was apparently a result of the water pipes needing to be located in the dams established within smaller creeks because the larger creeks had been impacted by heavy sedimentation coming from the mining pit and therefore being undrinkable. This however, was problematic because these smaller creeks were seasonally prone to drying-up.

While many landowners across Simberi Island felt that company facilitated water connections were beneficial to the Simberi Island community, they nevertheless were also of the opinion that St Barbara (SGCL) had obligation to provide safe and accessible water sources across the Island. This expectation was premised on the fact that the company was extracting gold from their land and because, over time, this had generated significant environmental damage. Early evidence of this environmental damage had been initially documented in 1996, 14 years after the initial commencement of mineral exploration on the Island (NSR Environmental Consultants Pty Ltd, 1996). Almost twenty years later, community concerns indicated that the same issues were still prominent.

“We can’t drink our river water anymore because of flooding coming from the mine caused by the machines which has contaminated our water... We are no longer safe. Our water is ruined. Who is going to make it well again? The environment, the sea - our corals are dying out, the bush, it no longer produces enough food anymore, the trees are dying. These are things that mining has done. When mining came, the environment was in good condition but now it is damaged” (S15).



Photo 3 and Photo 4: Examples of Mining Company development intervention: Photo 3 (above left): A community shower under construction in the Bekou Community, Simberi Island (December 2014). Photo 4 (below right): A Water connection on Simberi Island established earlier by Allied Gold.



The Simberi Oxide Gold Project Environmental Plan (1996) produced for Nord Australalex Nominees (PNG) Pty. Ltd acknowledges the impact on freshwater resources as a consequence of exploration, which had commenced in 1982⁷³. The report recognises that exploration activities had generated exploration-derived sediment within the communities of Bueri, Monun and Napekur. For the Monun Community, where the community water supply had previously been from Talamuk, Monun and Paten creeks, the report notes that the Monun and Paten creeks had become turbid with orange-brown sediment in times of heavy rainfall, and that a large plume was often observed in the ocean off Monun Hamlet. “In addition, flooding of Monun Creek upstream of the hamlet occurs on a regular basis due to siltation in sections of the creek. The source of the siltation is sediment eroded from exploration areas” (NSR Environmental Consultants Pty Ltd, 1996, p. 84). Other exploration-derived impacts were acknowledged for Matanabol (Lava), Bekou, Pikicow, Suror, and Botlu Creeks. With regard to sedimentation impacts within the coastal marine area, the report states that sedimentation had led to the smothering of fringing coastal reefs and detrimental effects on the reef fishery in the delta region of Monun and Paten creeks, with claims of damage to the reef system off Lava Hamlet and Bueri villages also being recorded (NSR Environmental Consultants Pty Ltd, 1996). The report also notes that forms of compensation had been paid to local landowners since 1981 by Nord.

The 1996 Nord Australalex Report reinforces the provisions of the 1996 Compensation Agreement, which committed to the corporate provision and installation of rain-water supplies to communities affected, or likely to be disadvantaged by discoloured or dirtied creeks and bays as a result of sediment related to company activities “...with tanks, roofing-iron, guttering, down-pipes and cement being donated by SGC” (Simberi Gold Company Pty. Ltd. & The Landowners, 1996 cl. 3.1(a)). Further, where communities using Monun Creek, Lava Creek and Bekou Creek suffer a greater degree of water discolouration it stipulates that: “SGC shall provide piped water supply and construct facilities for showering and washing clothes, prior to any such adverse impact occurring” (ibid., cl. 3.1(b)). In addition to these provisions, in 1996 Nord Australalex committed to the provision of permanent, reticulated, gravity-fed water supply to any hamlet whose water supply severely affected by the project, and to relocate and reuse existing water tanks for a back-up water supply system (ibid., p38). Unfortunately, at the time of my research in 2014, these corporate commitments supporting local living standards appeared to remain largely outstanding, and for many research participants, earlier desires for

⁷³ Nord was the exploration company for which the mining lease for Simberi (ML 126) was granted in 1996.

mining company-led community development had become framed by a reality of environmental damage and associated livelihood uncertainty.

8.4 Environmental Wellbeing on Simberi Island

Living with adverse environmental impacts has become common for a number of villages within the Mining Lease area on Simberi, particularly within the Munun Community (including Munun Village and Lava Village), but also within the Bekou Community. According to media reports⁷⁴, landowners actively protested against mine-related environmental damages to creeks and corals reefs in early 2010 (Earthworks and Mining Watch Canada, 2012). This, in turn, led to a stop-work order being issued by the government, to which Allied Gold responded by sending in a dozen Fijian mine security staff personnel (without the necessary work permits) (ibid.). The following year in March 2011, Allied Gold were also alleged to have leaked mine tailings from their mixing tank: “The leak apparently contained cyanide and may have contaminated ocean waters and killed fish. The Department of Environmental Conservation ordered the mine to stop milling operations and make repairs, and initiated an independent investigation into the cause and impacts. People on the island have condemned the company for the contamination and reported dead marine life” (Earthworks and Mining Watch Canada, 2012, p15).⁷⁵

It was explained to me by a landowner that the worst environmental damage occurred within Munun in 2008-2009, when Allied Gold was working in the mining pit area and dumping waste within waterways (S20). According to this participant, this resulted in increased sediment build-up in the waterway, causing the deviation of the creek from its channel and resulted in regular flooding within the Munun Community. Another research participant within Munun Community recalls:

“It didn’t flood before mining, the creek followed the right route. Once mining came in, the sediments began to block the creek... The community relations people

⁷⁴ Fijians in PNG claimed to be ‘mercenaries.’ Fiji Sun 24 January 2010. http://www.fijisun.com.fj/main_page/view.asp?id=33159 “Fiji mercenaries to be sent home.” Fiji Sun 29 January 2010. http://www.fijisun.com.fj/main_page/view.asp?id=33473; “Fijians in PNG claimed to be ‘mercenaries.’” Fiji Sun 24 January 2010. http://www.fijisun.com.fj/main_page/view.asp?id=33159

⁷⁵ Citing: Joku, H. “Cyanide spill shuts Simberi mine.” PNG Post-Courier 09 March 2011. “Mining company denies spill allegations in PNG.” ABC Radio Australia 10 March 2011. <http://www.radioaustralia.net.au/pacbeat/stories/201103/s3160879.htm>; Joku, H. “DEC to engage firm to probe Simberi leakage.” PNG Post-Courier 17 March 2011. <http://www.postcourier.com.pg/20110407/ispost02.htm>; Joku, H. “DEC issues protective order against Simberi.” PNG Post-Courier 22 March 2011; “PNG island inhabitants angry at alleged waste spill.” ABC Radio Australia 11 March 2011. <http://www.radioaustralia.net.au/pacbeat/stories/201103/s3162071.htm>).

come after floods. Last time they came they advised that the village would be relocated. But no timeframe or relocation destination was given” (S11).

The environmental impacts of mining have clearly had adverse wellbeing consequences for landowners within the Munun Community. A local woman explained that areas of the bush previously relied on for community livelihoods were no longer accessible to the community as a consequence of mining (S4). For her this meant no longer being able to collect greens for eating or being able to collect bush materials to supply building materials for repairing the roofs of their houses. She recalled a marine chemical spill that had occurred in 2010, describing how this had caused marine life to die and wash-up, how it had killed a pig that ate the dead fish lying on the beach, and how the skin of two older children started to peel off after they had washed in the sea. As a consequence, she explains, people are afraid of the chemicals in the sea, and that unlike times before, people in other villages now feel pity for Munun.

“Sediment from flooding gets into the villages, inside our houses. It stays there... We don’t go anymore to the gardens because the mine has come closer and taken land for gardening... We use other people’s land, other people feel pity on us and allow us to use it for food. We have no more land to do gardening anymore. The company doesn’t see what our needs are. If the company understood, they could relocate us. But where would we go? Relocation means, plotting out how many hectares the land is, and [considering] how many hectares gardening is going to be done in, and where the houses are going to be. But the company doesn’t seem to come close to our opinions... It’s a lifetime for us, not just a day.

Within the pit area, they work, they dig and dump waste in the direction near Munun. And the people are waiting, waiting to see if the rain comes and the waste runs down through the Village. The pile of waste that is there, it is so big, it seems that it can cover up the village” (S4).

In 2014 the company was in the process of relocating a group of landowners impacted by flooding in Munun village. This relocation process was initiated by the previous owners of the Simberi mine, Allied Gold. The project involved the construction of seventeen new family houses on primarily elevated sites away from the flooding area, and a new community church was also to be constructed. In a discussion with a landowner affected by the relocation I was informed of concerns held by landowners relating to the relocation project, including concern about unjust exclusion of people from the relocation project, on the basis that these people

had already moved away from Munun Village to escape the flooding prior to the company relocation project being confirmed. Landowners explained they wanted their relocated houses to have lighting, and a toilet, and although they had been raised as issues in a company-community meeting held in October 2013, company staff were not prepared to address such issues. Further, now that some of the relocation houses were under construction, people had become concerned about the small size of the houses. While they had seen the housing plans on paper, they had not comprehended what these technical drawings would look like on the ground. To address this issue, some people had begun to ask company staff if the number of rooms could be reduced to produce a more spacious home. This request was however problematic from a company management perspective, on the basis that people would likely continue to change their minds about the houses until construction was complete, and because altering house plans to accommodate landowner desires at this stage would likely give rise to allegations of company favouritism and become a source of tension between landowners. At the time of my visit in November – December 2014, four houses were under construction and all were yet to be finished⁷⁶.



Photo 5: Munun Village Church. In the photo above I am standing outside the existing (but soon to be relocated) Munun Village Church impacted by flooding and sediment flows in November 2014. This church had been flooded and the original church seating had been fully enveloped by sediment flows. Once this sediment had settled, new seating had simply been built over top of the original seating on the newly established ground level.

⁷⁶ I noted that community relations staff members were themselves assisting with the construction of these houses.

For landowners who had lost land and gardens to mining, the ability to access entitlements to compensation emerged as a critical livelihood subsistence issue. Most community members that I spoke to agreed that St Barbara (SGCL) were paying compensation to these 'affected landowners', but issues existed pertaining to the distribution of compensation to those living with reduced livelihood and subsistence opportunities as a consequence of mining operations. Some of those receiving compensation were also concerned about the level of compensation, stating that it was an insufficient amount, and that it failed to adequately address the scope of environmental damage. Of particular concern was the scope and extent of compensation paid by the company in relation to the adverse impacts from mining on fresh water resources the coastal marine water, in addition to the impacts caused by water, in terms of damage from flooding. A landowner in the Bekou Community who was living with recurrent flooding explains:

"The company have generated significant environmental damage, and they have paid us some money but not enough for the amount of damage that they have done... They must maintain our land, or relocate us so that it will be liveable for us. The company needs to do something to reinstate our land to how it was before the flood comes" (S16).

The arguably low base rate of compensation being paid by St Barbara (SGCL) to immediately impacted landowners is perhaps one reason for this view. In 2014 the amount paid was K10 (being approximately NZD5.10) per hectare per year, which was paid for land interference and for the severing of land from the owner. Where land was to be lost for ever as a result of mining, such as within the mining pit area, a total of K130 was paid per hectare per annum until such time when the mining lease is surrendered or terminated (SGCL, 1996). Due to the limited alternative livelihood options available to the people of Simberi Island, the compensation which is paid to those with reduced subsistence-based livelihood support exists as an essential means of providing for immediate livelihood needs. The provision of compensation may therefore be considered a necessity, not a development benefit, with the relative scope, amount and distribution of compensation having a significant impact on the day to day lives of landowners. This narrative effectively illustrates how the provision of compensation and ameliorative forms of development intervention are critical for affected landowners on Simberi. It also highlights how, consistent with the Kapit landowner narrative emanating from Lihir Island, broader forms of mining company intervention connect with community wellbeing and development issues concerning housing, food, water, sanitation, the need for remediation and livelihood security within each of these Island communities.

8.5 Experiences of Community Health Intervention

Given ameliorative forms of development intervention may be necessary to remedy and mitigate adverse socio-environmental livelihood impacts generated by mining operations, landowner experiences of more affirmative forms of development intervention (discussed in Chapter 7) can act as a useful platform for analysing the extent to which development intervention adds development benefit within the community. The consideration of landowner experiences of development intervention that is intended to support community health is therefore relevant in this regard.

On Lihir Island, community health is recognised as being a development priority by Newcrest (LGL) (L24)⁷⁷. Two primary medical facilities exist, the Lihir Medical Centre and the Palie Health Centre. These medical facilities exist in conjunction with a first-aid post within the mining area and eight additional community aid posts located around Lihir Island. The Palie Health Centre is a Catholic Mission hospital constructed in the late 1950s. Currently managed by the Catholic Church, in 2013/2014 it had medical staff of two nursing officers, one health extension officer and three community health workers, who attended approximately 60 patients per day (McDermott & Ruediger, 2013). Whilst there was no resident doctor at the health centre, it often received a weekly visit by a doctor from the Lihir Medical Centre. On the particular week of my visit however, there had been no doctor's visit because the Lihir Medical Centre had reported it had been 'too busy'.

The Palie Health Centre operates in a state of disrepair, with no power and a lack of basic medical equipment. Hospital staff struggle to operate within these infrastructure conditions and also have difficulty financing the day to day costs of running the facility. I was informed by health centre staff that this was partly due to government policy, which advocates free health care but does not provide the additional resourcing to support this policy. While the government does provide the facility with basic medical provisions (including drugs), staff further advised me that the extent of these supplies is limited and that delivery was unreliable. They also pointed out that up until March 2014 Newcrest (LGL) had been providing supplementary medical supplies to assist the hospital, but that this support was no longer available. In addition, the health centre did not receive any financial support through the IBP2 agreement, either directly from the company or indirectly via the LICHP or LMALA. When I inquired about the issue of supplementary drug supply with a senior staff member at the Lihir

⁷⁷ Newcrest's current backing of the Medicines for Malaria Venture (MMV) perhaps signals the corporate intent to recognise this priority

Medical Centre, I was told that because the Lihir Medical Centre and Palie Hospital gained access to supplies through the same government facility, the Lihir Medical Centre had no advantage in this regard. I was also advised that supporting Palie Health Centre, either through the co-ordination of supply or via provision of supplementary drugs by the Lihir Medical Centre, would not help the Palie Health Centre in the long-run when the mine was gone.

On review of the Memorandum of Agreement⁷⁸ (dated 25th May 1996) relating to the health services on Lihir Island, and which details the agreement (amongst other things) for the high level operational services associated with the Lihir Medical Facility, it appears that the Lihir Medical Centre does in fact have an obligation to support the Palie Health Centre (Independent State of PNG, New Ireland Interim Provincial Government, Nimamar Development Authority, The Catholic Church Health Agency, & The Lihir Management Company Pty. Limited., 1996). Within this MOA it states that:

- The Medical Facility⁷⁹ is required to implement a range of services, including the maintenance of "... a bulk medical supplies store at the Medical Facility which shall cater for the needs and requirements of the Medical Facility **and other medical facilities in the Lihir Group of Islands**" (1996, Clause 3.3, emphasis added).
- The agreement specifically provides for the "... registration of the Medical Facility as an agency to bulk order medical supplies from the government base medical stores for the purposes of supplying the needs of the Medical Facility **and other medical facilities in the Lihir Group of Islands**" (1996, Clause 7.4, emphasis added).

It was clear from this MOA that although the Provincial Government is responsible for the provision of staff, supplies and supervision of the Palie hospital to a level at least equivalent to the rest of the New Ireland Province, there is also an established development obligation for the Lihir Medical Centre to support the Palie Health Centre. This obligation appears to extend to the provision of medical supplies required to assist Palie in meeting their health facility needs, including requirements that potentially go beyond the basic level of government facilitated supplies (1996, Clause 5.1).

⁷⁸ As entered into by the State, the company (LMC), the New Ireland Interim Provincial Government, Nimamar Development Authority and the Catholic Church Health Agency.

⁷⁹ The definition of 'Medical Facility' referred to in the MOA "... means the Medical Facility to be constructed by LMC at Londolovit on Niolam in New Ireland Province and includes the the [sic] buildings and other associated fixtures to be located at Londolovit..." as depicted in an appended site plan.



Photo 6: The Emergency Room in Palie Health Centre (October 2014). As evident within this photo, the ceiling of the hospital is now rotten in many places.

In addition to funding the Lihir Medical Centre, the IBP2 Newcrest (LGL) anticipates supporting localised health programmes through the provision of funding. The ‘Lihir Islands Community Health Program’ (LICHP) is understood to be the core community health initiative indirectly funded by LGL, but which is not overseen by the company. The LICHP was originally established as “... a community initiative to improve the quality of community health services provided through non-mine managed community health services” (Montrose & Health Partners International, 2013). Initially managed by the consulting firm JTA International⁸⁰, at the time of my research in 2014 it was managed by the LSDP, and ultimately LMALA. In a

⁸⁰ An international health and social sector consultancy firm.

meeting with a senior LICHP representative in October 2014, I was advised that the current LICHP policy was to limit support to affected areas only. Whilst in the past the LICHP had previously extended health support to the broader Lihir community (Hosea, 2012), due to a staffing shortfall this was no longer preferable for the organisation. The consequence of this policy shift was the exclusion of the wider 'non-affected' community from health benefits originally anticipated to reach them via IBP2 funding.

LICHP's underlying rationale for narrowing the policy focus of community health support on mining lease areas perhaps underlies the discernible lack of investment in the upgrade of the Palie Health Centre. Through the course of my research I was frequently told of the previous commitments made by LGL and LMALA to collaborate and rebuild the Palie Health Centre. Whilst I never saw this agreement, a representative of the Catholic Church explained that the agreement involved a commitment by Newcrest, LMALA and the Provincial Government, to rebuild the Palie Health Centre via Lihir Sustainable Development Plan funding administered by LMALA. Numerous community members informed me about the ground breaking ceremony that was held within the community as a mark of acknowledgment of this agreement. According to a Church representative, following the ground breaking ceremony LICHP/LMALA workers arrived on site and started replacing roofing iron on the existing buildings, intending only to repair the building. However as the agreed undertaking was to rebuild the health centre, Church representatives stopped the repair activity from progressing. Upon questioning an LICHP representative about this upgrade/rebuild, it was explained to me that JTA International had previously assumed that funding via the IBP2 through LMALA would be sufficient to cover the cost of the upgrade, but it was later discovered that this was not the case. As such, the upgrade of the Palie Health Centre remains an outstanding development concern for many Lihirian landowners, reflecting the significance of health as an essential component of the manifestation of *gutpela sindaun* on the Island.

On Simberi Island, health was similarly recognised to be an essential component of *gutpela sindaun*. Two health facilities exist on Simberi, the government funded Simberi Medical Centre and the company funded health clinic. The community medical centre is based in the Maragon community, located on the north-western side of Simberi Island. The clinic was upgraded in 2011 by the Mineral Resources Authority⁸¹ (MRA) to provide toilets and running

⁸¹ The MRA is a government organisation, which, amongst other things, was established in 2005 with the purpose of overseeing the administration of the Mining Act (1992); providing advice to the Minister of Mining; collecting mining rent, royalty or fee on behalf of the State; and administering any public investment programme relating to mining (Independent State of PNG, 2005).

water, but it still lacks power. While it is well known by Island residents that this upgrade was initiated by the MRA, there was limited recognition that Allied Gold had previously had a role in the upgrade. In 2014, the SGCL supported the day to day running of the medical centre and also employed a health extension officer to visit and work at that clinic, providing more advanced medical care through the company clinic when required (refer to Chapter 7 for details of other health related development contributions). SGCL nevertheless limited direct access to the company health clinic services to mine employees only, limiting the ability of community members to access a doctor. I was advised that when the mine had previously been operated by Allied Gold, the company doctors had visited the community clinic on a weekly basis, but that this was no longer the case. Although there was a referral system established between the community health centre and the company clinic, due to the fact that the health centre had no power and no radios to connect them with Company clinic, the referral system was unreliable. When a referral was necessary, it involved health clinic staff waving down passing-by company vehicles and having to ask drivers to deliver confidential patient information to the company clinic.

“I want something to change... Our kids need a better education, students need good knowledge. We need a good hospital and health for people for the future. I think when the mine finishes we won't have enough. Our mountain island is buggarup... When the company goes they will leave us with nothing, so there is something sad, for our kids and our future” (S2).

As detailed within the Simberi Mine Memorandum of Agreement (1996), it was clearly envisioned that the company clinic would provide direct community health service. This MOA states that the Simberi Gold company should continue to operate a company health clinic at Pigiput Plantation and that “[t]he clinic will be open to residents of Simberi Island” (1996, Clause 20, emphasis added). Interestingly, many of the community aspirations, and the frustrations concerning St Barbara's (SGCL's) role in the support of community health, directly related to these early established corporate commitments. Not only did the community members want to be able to use the company health clinic, and want to have access to a physician, they wanted increased corporate support for the Maragon Community Health Centre. For many research participants, the establishment of a well-resourced community hospital, which would provide for the health needs of future generations, was a legacy which they wished would be left behind by the mine (S1, S2, S15, S17, S22).

8.6 Recognising the Value of Education

Akin to health, education is yet another facet of development that is locally significant within the case study context. The Lihir Education Plan is an LSDP initiative that seeks to improve the quality of education available on Lihir Island, through enhancing the delivery of mainstream education and by increasing the value that Lihirians place on education. Implementation of this Plan commenced in 2009 and between 2010 and 2012, was managed by a private consultancy, International Education Agency (IEA). In 2013 the decision not to renew the IEA contract resulted in a change of management, and Plan implementation became the responsibility of the LSDP Education Support Centre, ultimately coming under the control of LMALA. In 2014 the Lihir Education Support Centre consisted of four members, only one of whom had formal training in education. Research participants reported that there had been a significant reduction in funding support available for schools as a result of budgeting resource and funding reallocation issues within LMALA, and amongst both Newcrest (LGL) and LMALA staff it was recognised that the allocation project funding did not always translate into funding availability due to the reallocation and diversion of allocated funds elsewhere (as discussed in more detail in the context of community development intervention in Chapter 7). As a consequence of these funding issues, in 2014 the ability for educational facilities to access IBP2 funding was limited, irregular and at times non-existent.

“Sometimes I think the company should have just built it themselves instead of giving us the money” (L18).

The failure to connect support for Lihirian education with community development funding provided by Newcrest (LGL) is highlighted in relation to the case of Palie Vocation School. Palie Vocational School is a government-funded educational facility on Lihir, providing electrical, automotive mechanic, carpentry, joinery and welding training, as well as training in hospitality and tourism. In September 2014 the school had 380 students enrolled. A school spokesperson advised that approximately 50% of the vocational school’s students gain employment with the mine after they finish their training, but the School received no support from Newcrest (LGL) either directly or indirectly through the IBP2 funding. The spokesperson nevertheless felt it was the company’s duty to help the school:

“It is one of their duties... One of the things they should do in the community. It’s their duty to help us, to upgrade us, to help us have proper facilities for training. But since the mine started, until now, they have given us two boxes of books...” (L39).

The school's spokesperson described a sense of frustration in the fact Newcrest (LGL) had established an arrangement to take grade 10 students from the Lihir High school and train them through the company's technical training centre. He explained that the company's training centre duplicates training already provided through the vocational school. He argued that instead, if the company wished to support the wellbeing of Lihirians, they should be supporting the vocational school, as the Palie facility would endure upon mine closure. Of the 380 students attending the vocational school, 263 of the students were boarders, with many coming from surrounding islands within the region. The spokesperson explained how the boys were living in overcrowded and barely habitable living conditions, which lacked basic amenities such as toilets. Whilst at the time of my visit the dormitory was all but empty due to it being the school holidays, the poor standard of the facility was still very apparent (see photo below).



Photo 7: St. Michael Palie Vocational Training School, Palie, Lihir (October 2014).

On Simberi Island, the scope of mining company support for education similarly falls short of community expectations for corporate development intervention. There is a high regard held for education across Simberi Island, which accommodates one government funded primary school on the Island (but does not accommodate a high school). Over the past few years the

Simberi Primary School facility has been upgraded, with a new double storey classroom being funded by the MRA and a new dormitory building (which has since been converted to a library) being funded by the company. St Barbara (SGCL) also supports the school through the provision of a school bus service, and supplies food for teachers and students during exam week and other special occasions. Notwithstanding these contributions, community members desire enhanced engagement between St Barbara (SGCL) and the school. When discussing this matter with the General Manager of the SGCL, he made the point that when considering the scope of the company's development support within the community, it must be put in perspective relative to the financial position of the company, and also the fact that it is the government's underlying role to support government institutions, not the company's. He states:

"We are currently losing approximately PGK 3.0 million per month running the operation. When talking about health and education, it should be asked: At what point does/should the Government take responsibility? The scale of our operation is much smaller than that of Lihir or other mines in the country and we lose a significant amount of money each month" (SGCL, General Manager, S21).

As highlighted within the discussion above, on Simberi and Lihir the significant divide that appears to exist between corporate and community expectations around development intervention is not necessarily easily reconcilable. But it is, however, clear from these community narratives that support of community-wide wellbeing through the effective promotion of health, education and enhanced living standards may be the key for mining companies wishing to promote meaningful development intervention within the case study context.

8.7 Conclusion

Drawn from the life experiences of customary landowners and landowning groups on Simberi and Lihir, the narratives in this chapter highlight the interrelationship between experiences of mining company intervention for development purposes, and experiences of mining company intervention in the broader sense. Where these narratives signal the existence of frustration and concern at the community level, this may be due to the fact that for many landowners, the delivery of effective forms of mining company development intervention is understood to be akin to a development entitlement, something which mining companies morally owe to communities. Informed by morally imbued appreciation of development intervention, as well as the notion of community entitlement, these landowner narratives effectively contextualise a

set of community wellbeing and development values that are relevant to the analysis of development intervention within the research context.

Connecting back to the economic, psychological, political, social and environmental dimensions of wellbeing and development (discussed in Chapter 6), these facets of development encompass the quality of education and the scope of educational opportunities, levels of health and health care, housing availability and quality and the provision of infrastructure support and services within the research context. Using these narratives as a platform for analysis, in the next chapter these themes are explored through the lens of human rights. The set of human rights relevant to these community wellbeing and development values include a subset of human rights contained within the International Bill of Human Rights. Grounded within the community wellbeing and development values emanating from the research context, for the purposes of this research these human rights are referred to as Community Wellbeing and Development Rights. The connections between the dimensions of wellbeing within the case study context, the emergent community wellbeing and development values, and the related set of human rights are presented in Table 10. The nature and relevance of these human rights within this research is discussed in detail in the following chapter.

Table 10: An Overview of the Connections between Wellbeing and Development Values and Human Rights across Lihir and Simberi Islands.

Dimensions of wellbeing	Community wellbeing and development values that are emergent within landowner narratives	Related human rights
Economic	The need for the more equitable distribution of compensation for mining impacts.	<ul style="list-style-type: none"> ▪ Right to an adequate standard of living for wellbeing (incorporating housing, food, water and sanitation considerations). ▪ Right to life. ▪ Right to own property. ▪ Right to the highest attainable standard of physical and mental health. ▪ Right to education. ▪ Right to self determination. ▪ Right to access effective remedy.
Psychological	The significance of environmental wellbeing, human security, livelihood subsistence.	
Political	The importance of corporate – community transparency and accountability, and landowner recognition associated with mining company development intervention.	
Social	Health care, housing quality and availability, infrastructure services and support and services, quality education and the scope of educational opportunities.	
Environmental	Environmental values related to human subsistence and livelihood, and connected	

Dimensions of wellbeing	Community wellbeing and development values that are emergent within landowner narratives	Related human rights
	to the economic, social, psychological and political dimensions of wellbeing.	<ul style="list-style-type: none"> ▪ Right to work.

9. Mining Company Intervention through a Human Rights Lens

The following discussion draws on community narratives and experiences of mining company community intervention (as detailed within the previous chapter), to examine the relevance of Community Wellbeing and Development Rights related to mining company development intervention on Lihir and Simberi islands. I do this by analysing the extent to which these human rights are respected and enhanced through forms of development intervention undertaken by Newcrest (LGL) and St Barbara (SGCL). As these human rights are understood to embody a core set of wellbeing and development values necessary for the manifestation of *gutpela sindaun*, the following analysis also provides a means for assessing the effectiveness of development intervention to promote meaningful forms of community level development. The application of this normative human rights framework facilitates the consideration of how mining company intervention impacts the distribution of human rights benefits and burdens within each Island community, and in turn, highlights issues of distributional justice and injustice relevant to mining company intervention. The chapter begins by considering the corporate policy stance for Newcrest and St Barbara pertaining to human rights. It then establishes the relevant human rights assessment classification categories, and explores the extent to which mining company development intervention promotes locally significant Community Wellbeing and Development Rights across Lihir and Simberi islands.

It is important not to construe this analysis as being a Human Rights Impact Assessment (HRIA). An HRIA denotes the formalised process of human rights assessment (Bakker et al., 2009), which is necessarily informed by comprehensive stakeholder participation (Bakker et al., 2009; De Beco, 2009). In contrast, this research did not explicitly involve the discussion of ‘human rights’ impacts with research participants. In this case the connectivity between mining, development intervention and locally significant human rights was fully established post-fieldwork during the analysis of the research data. Further, because this research adopts an intentional non-elite landowner bias (as rationalised in Chapter 4), the full breadth of human rights considerations connecting to corporate development intervention may not be covered within the analysis. As a consequence, the following can be understood as a

targeted human rights analysis specific to mining company development intervention, but not an HRIA.⁸²

9.1 Corporate Human Rights Policy

The corporate human rights policy positions of LGL and SGCL are anticipated to align with the respective policy positions held by their parent companies, Newcrest and St. Barbara⁸³. While St Barbara do not make any explicit reference to human rights within their corporate visions or values statement, they do state that underpinning their corporate vision "...to be a successful, leading and growing gold company", are the values of 'safe production', 'environmental sustainability', 'beneficial relationships with our communities', 'ethical business dealings' and '[r]espect for the rights and aspirations of our people' (St Barbara Ltd., 2015a). Ambiguity, however, exists in terms of whether the reference to the respect for the rights of 'our people' is confined to company employees or should be interpreted more broadly to encompass landowners living in the vicinity of mining operations.

In comparison, Newcrest makes a public commitment to uphold human rights as part of a high-level corporate strategy. Not only do they advocate direct policy support for the respect of human rights but they indicate their intent to maximise positive impacts on communities, including in relation to human rights (Newcrest Mining Limited, 2015c). Aligned with this human rights agenda is the company's membership to the Voluntary Principles on Security and Human Rights and their signatory support of the Australian Mining Industry Framework for Sustainable Development 'Enduring Value'⁸⁴. This signals a proactive corporate stance towards human rights protection, being a stance which they affirm within their human rights policy. Newcrest's human rights policy states that the company will:

- "Respect human rights consistent with the Universal Declaration of Human Rights, international humanitarian law and the laws and regulations of the countries in which we operate";

⁸² Within the Human Rights Assessment of Goldcorp's Marlin Mine (2010) assessors adopt a similar approach, opting against identifying the assessment as an HRIA due to potentially restricted levels of participation at the research stage.

⁸³ While Newcrest has publicly disclosed this as being the case (see Lihir Gold Limited, 2012), for St Barbara it is an assumption based on the fact that SGCL is a 100 per cent owned subsidiary of St. Barbara.

⁸⁴ This is premised on the International Council on Mining and Metals principles, which requires committed ICMM member companies to implement and measure their performance against ten sustainable development principles. This includes the principle to '[u]phold fundamental human rights and respect cultures, customs and values in dealings with employees and others who are affected by our activities' (International Council on Mining and Metals (ICMM), 2009, p. 3).

- "...use our influence to prevent human rights abuses occurring in the vicinity of our operations, and will engage in dialogue with stakeholders to promote human rights..."
- "...build and maintain enduring relationships with our employees, host communities, suppliers and customers, based on recognition and respect for human rights, trust and active partnerships..." (Newcrest Mining Limited, 2013a).

Principle 16 of the Guiding Principles⁸⁵ can be understood to contextually frame mining company policy commitments pertaining to recognition and protection of human rights. This normative standard stipulates that business should publicly express their commitment to respect human rights, in a manner that:

- a) "Is approved at the most senior level of the business enterprise";
- b) "Is informed by relevant internal and/or external expertise";
- c) "Stipulates the enterprise's human right expectations of personnel, business parties and other parties directly linked to its operations, products or services";
- d) "Is publicly available and communicated internally and externally to all personnel, business partners and other relevant parties";
- e) "Is reflected through operational policies and procedures necessary to embed it throughout the business enterprise" (United Nations, 2011, p. 16 GP16(a)-(e)).

The Guiding Principles of Business and Human Rights (2011) mandate that business enterprises have a recognised responsibility to 'respect' human rights, and require that business enterprises:

- (a) "Avoid causing or contributing to adverse human rights impacts through their own activities, and address such impacts when they occur;
- (b) Seek to prevent or mitigate adverse human rights impacts that are directly linked to their operations, products or services by their business relationships, even if they have not contributed to those impacts" (United Nations, 2011 GP 13).

⁸⁵ To recap the discussion on the Guiding Principles contained within Chapter 5, the Guiding Principles have no legal standing in terms of international law, but they nevertheless remain a widely recognised normative framework detailing the human rights expectations for the private sector. They consequently provide operational guidance for the integration of the respect of human rights within business practice.

Three basic human rights assessment classification categories therefore emerge as pertinent to human rights analysis within the private sector⁸⁶, including:

1. **Failure to Respect Human Rights:** Where corporate action or inaction results in potential for, or worsening of, the human rights situation for an individual or a group of people.
2. **Respect of Human Rights:** Where corporate action, or inaction, avoids adversely impacting the human rights of an individual or group of people.
3. **Enhancement of Human Rights:** Where corporate action or intervention improves the human rights situation for an individual or a group of people (On Common Ground Consultants Inc., 2010).

The relative use of these three classification terms within this analysis is primarily informed by the experiences of landowners (detailed in Chapter 7), but is also informed by guidance provided by the United Nations, and by the International Finance Corporation's (IFC) Performance Standards on Environmental and Social Sustainability. The IFC Performance Standards are relevant as they provide a best practice benchmark in the area of sustainable business practice and provide practical human rights guidance for mining companies on matters relating to land acquisition and involuntary resettlement (International Finance Corporation, 2012a). Within this research, research participant concerns often connect with matters addressed by IFC Performance Standard 5. In accordance with Performance Standard 5, the term 'involuntary resettlement' refers to both:

“[P]hysical displacement (relocation or loss of shelter) and to economic displacement (loss of assets or access to assets that leads to loss of income sources or other means of livelihood) as a result of project-related land acquisition and/or restrictions on land use. Resettlement is considered involuntary when affected persons or communities do not have the right to refuse land acquisition or restrictions on land use...” (2012a, pp. 31, ps 5(1)).

It should further be noted that even in circumstances where no land acquisition or land use restrictions occur as part of business operations, the IFC advocates that if the impacts from a

⁸⁶ While there was scope to establish a more comprehensive set of human rights classification categories, this three tier assessment system appropriately aligns with the main objective of this analysis - to establish how development intervention intersects with the corporate enhancement, respect and/or failure to respect Community Wellbeing and Development Rights on Simberi and Lihir Islands.

project become ‘significantly adverse’, that the business undertaking the project should consider implementing the provisions of Performance Standard 5 (International Finance Corporation, 2012a, pp. 33, ps 5(7)). The implications of this are discussed in more detail within the following analysis.

9.2 Community Wellbeing and Development Rights

This research reveals the connection between the wellbeing and development values as held by the customary landowners on Simberi and Lihir islands and the International Bill of Human Rights. Given the associative nature between local development values and international human rights norms, the emerging subset of human rights⁸⁷ pertinent to local landowners are referred to within this research as Community Wellbeing and Development Rights (see Figure 8 for a conceptual representation of this relationship).



Figure 8: Conceptualising Community Wellbeing and Development Rights

The Community Wellbeing and Development Rights detailed in Table 11 reflect the human rights classification categories relevant to community wellbeing and development values on Lihir and Simberi islands (as documented in Chapter 8 and summarised in Table 9). These human rights, in turn, provide a foundation for analysing the effectiveness of mining company development intervention within this research. Given the interdependent and indivisible nature of these Community Wellbeing and Development Rights, rather than independently analysing mining company development intervention against each relevant human right, this research recognises the connectivity between these rights by applying a situational analysis informed by landowner experiences of mining intervention.

⁸⁷ Although they remain interdependent and indivisible from the broader suite of human rights contained within the International Bill of Human Rights.

Table 11: Community Wellbeing and Development Rights Framework

Human Rights (As identified in Table 9)	Description	Human Rights Instrument ⁸⁸
Right to an adequate standard of living for wellbeing (incorporating housing, food, water and sanitation considerations).	All people should have the right to a standard of living, and to the continuous improvement of living conditions. People have the right to be free from hunger, and the right to security in the event of a livelihood circumstance beyond their control. This includes a right to available and accessible food, and to clean water.	UDHR Article 25; ICESCR Article 11.
Right to life.	All people should have the right to life, and not to arbitrarily be deprived of life. The right to life has been broadly interpreted "... to include the right of access to the basic necessities enabling survival (e.g. food, essential medicines) and provision of reasonable protection from threats to one's life". ⁸⁹	UDHR Article 3; ICCPR Article 6.
Right to own property.	All people should be entitled to own property, and to not be arbitrarily deprived of it.	UDHR 17.
Right to the highest attainable standard of physical and mental health.	All people should have the right to a standard of living adequate for health, including medical care and social services.	UDHR 25; ICESCR 12; ICCPR 17.
Right to education.	The right to education should be orientated around "... the full development of the human personality and the sense of its dignity...". ⁹⁰	UDHR 26; ICESCR 13 and 14.
Right to self determination.	All people should have the right to self-determination and be free "... from domination by an alien power" ⁹¹	ICESCR Article 1; ICCPR Article 1.
Right to access effective remedy	All people should have the right to access effective remedy for the violation of rights.	UDHR 8; ICCPR 2.
Right to work	All people should have the right to the opportunity to make a living through freely chosen employment, and the right to join trade unions to protect their interests.	UDHR Article 23; ICESCR Articles 6 & 8; ICCPR 22.

With the exception of the 'right to work', this human rights framework will now be used to analyse the effectiveness of mining company intervention on Lihir and Simberi islands from a locally contextualised rights-based perspective. The right to work provides everyone the right to the opportunity to make a living through freely chosen work and includes a prohibition with

⁸⁸ Refers to human rights presenting as directly related in context to this analysis.

⁸⁹ (Monash University Castan Centre for Human Rights Law & Office of the High Commissioner for Human Rights, 2008, p. 9).

⁹⁰ (United Nations General Assembly, 1948 Article 26(2)).

⁹¹ (Monash University Castan Centre for Human Rights Law & Office of the High Commissioner for Human Rights, 2008, p. 3).

respect to arbitrary dismissal (Monash University Castan Centre for Human Rights Law & Office of the High Commissioner for Human Rights, 2008). This right is also closely aligned to the right to enjoy just and favourable conditions of work (ICESCR, 1966, Article 7), the right to form and join trade unions (ICESCR, 1966, Article 8) and the right to strike (ICESCR, 1966, Article 8). At a high level both LGL and SGCL must be recognised to be enhancing the right to work for local landowners through providing employment opportunities associated with mining and through the corporate-level adoption of preferential employment policies that support the employment of local landowners by each company. However, as the consideration of labour working conditions was beyond the scope of this research, the extent to which each of the companies support the right to work is not fully considered as part of this analysis⁹².

9.3 Navigating Life and Environmental Damage – Simberi Island

The right to an adequate standard of living is understood to encompass entitlements to adequate food, housing, water and sanitation, and the varying components of this right are considered to be inextricably connected to other human rights (Monash University Castan Centre for Human Rights Law & Office of the High Commissioner for Human Rights, 2008). Access to safe and accessible food and water is therefore fundamental to the right to an adequate standard of living, and is necessary for health, for basic functioning and to sustain life itself. The right to food is understood to include "... the possibilities for individuals to feed themselves and their family directly by productive land and other natural resources (e.g. farming, animal husbandry, fishing, hunting and food gathering), as well as to purchase foods at markets and stores" (Monash University Castan Centre for Human Rights Law & Office of the High Commissioner for Human Rights, 2008, p. 118). Within communities that rely on subsistence based livelihoods, the access to natural and common property resources is extremely important for *gutpela sindaun*, and a reduction in access to common property resources is recognised to increase the risk of individual and community impoverishment (International Finance Corporation, 2012b, p. 7, GN18). Accordingly, environmental impacts caused by mining operations and their cumulative effects that adversely impact water, food and broader livelihood security can diminish the standards of living for affected communities. As detailed in the following analysis, despite forms of corporate community development

⁹² Consequently, this human rights analysis excludes consideration of the International Labour Organizations Declaration of the Fundamental Principles and Rights at Work [1988].

intervention and available compensation⁹³ for environmental damages on Simberi Island, the failure to adequately mitigate and remedy adverse forms of environmental impacts has diminished landowner livelihoods within some areas. It can therefore be argued that the mining and exploration companies who have caused this damage, past and present, have failed to respect the right to an adequate standard of living on Simberi Island⁹⁴. This failure to respect human rights is connected to waterway contamination and mine-related flooding impacts on community housing.

As recognised above, access to water is an essential component to the right to an adequate standard of living. On Simberi the right to water has been severely restricted as a result of sediment contamination and sediment build-up within rivers and streams within Munun community. While the current community water project being undertaken by St Barbara (SGCL) is assisting to mitigate the loss of this water right, for many landowners who have lost their natural community water resources, water availability remains an immediate community concern and priority. Accordingly, due to the ongoing existence of water contamination issues and the primacy of the right to water for health, and ultimately life, the current scope of the company's community water supply project appears inadequate in remedying the corporate failure to respect the right to water. While this form of corporate community development intervention will most likely occupy an important role in remedying such human rights infringements, it arguably needs to extend beyond the immediate provision of a gravity-fed water supply as a form of restorative mitigation and incorporate environmental remedial action that has a longer term (post-mining) focus. The scope of any such work could potentially feed into the Mine Closure and Rehabilitation Plan⁹⁵, which is required to be submitted to the State by the company five years prior to mine closure.

In late 2014 the SGCL were in the process of relocating a group of Munun Village members impacted by recurrent flooding impacts on their village. This relocation and resettlement project was deemed to be a corporate priority (S21), for which project responsibility was signalled within the revised (draft) MOA (1996). It was evident that flooding was occurring as a result of an extensive build-up of silt within the Munun Creek, which was limiting the flow

⁹³ The company obligation to pay compensation is specified within the Compensation Agreement for the Simberi Project, dated 2/12/1996. Details of the nature and scope of compensation payments were not, however, available to me as part of this research.

⁹⁴ The failure to respect an entitlement to subsistence is interconnected with the community right to self-determination (ICESCR 1; ICCPR 1). An internal right to self-determination is being referred to here, which is understood as 'a level of autonomy to operate within the existing state' (Hanna & Vanclay, 2013, p. 148).

⁹⁵ As detailed within Part B, Clause 9(a) of the draft MOA (2015).

capacity of the creek. Many community research participants reported that the source of this sediment was earthworks associated with past and present mining operations near the upper catchment of the creek. This information aligned with an earlier mining exploration company report, which reported the existence of 'exploration-derived sediment' eroding from exploration areas and entering into the Munun Creek, causing flooding within the creek's upper catchment, from as early as 1996 (NSR Environmental Consultants Pty Ltd, 1996, p. 82). Due to the established connection between the flooding impacts and mining operations in this instance, the facilitation of community relocation and resettlement for affected landowners can be seen as an appropriate, albeit overdue, form of corporate intervention necessary to address the adverse impacts on Community Wellbeing and Development Rights. These include the right to an adequate standard of living for wellbeing, the right to adequate housing, the right to own property and potentially the right to life.

Amongst those residents to be relocated into a new company-constructed home, there were concerns and requests made to the SGCL for a power supply, water connections and sanitation facilities (i.e. toilets). Requests had also been made for amendments to the internal construction design of yet to be built homes to provide enhanced space for further residents. Viewed through a lens of human rights, such requests can be understood as legitimate desires, all of which are measures that are important for determining the adequacy of housing (Office of the High Commissioner for Human Rights, 1997). According to the Office of the High Commissioner for Human Rights (1991), the right to adequate housing is understood to mean more than the provision of shelter and, amongst other matters, is considered to include the availability of services, materials, facilities and infrastructure.

As detailed by the Office of the High Commission for Human Rights:

“An adequate house must contain certain facilities essential for health, security, comfort and nutrition. All beneficiaries of the right to adequate housing should have sustainable access to natural and common resources, safe drinking water, energy for cooking, heating and light, sanitation and washing facilities, means of food storage, refuse disposal, site drainage and emergency services” (Office of the High Commissioner for Human Rights, 1991(b)).

It must also be habitable to its residents, providing adequate space and protection from climatic elements (Office of the High Commissioner for Human Rights, 1991(d)). These measures for assessing the adequacy of housing, also endorsed within the IFC (International Finance Corporation, 2012b, p. 5, GN13), act to substantiate and further legitimise the

concerns expressed by landowners relating to the availability of services and infrastructure, and in doing so, identify distinct issues that need to be considered by St Barbara (SGCL) as part of their relocation and resettlement intervention. In instances of involuntary displacement⁹⁶ and relocation, such as that occurring in Munun, the IFC advocates that compensation should be paid to landowners to assist in restoration of living standards and livelihoods associated with resettlement (2012a, p. 33, 5(9)), stating that where such compensation is in the form of cash, “[c]ompensation for land and other assets should be calculated at the market value plus the transaction cost related to restoring the assets” (International Finance Corporation, 2012b, p. 3 ,GN8).

Landowner concerns about flooding were also apparent within the Bekou community on Simberi Island. Here, landowners reported recurrent flooding caused by land recontouring and infrastructure works undertaken as part of the formation of a road and the construction of the airport runway associated with mine operations. Landowners explained that as a result of earthworks, the redirection of surface water was causing ongoing flooding to homes within the Bekou community. From a rights perspective, such flooding would not only signal a corporate failure to respect the right to an adequate standard of living for landowners, but also, indirectly, the failure to respect the right to health. In such an instance, the entitlement for landowners to access an effective remedy would thus also be applicable (UDHR Article 8; ICCPR Article 2) in supporting the restoration of, or compensation for, damaged homes and assets, and be further necessary in order to safeguard villages against future flooding events that could eventually result in involuntary displacement of landowners.

9.4 Resettlement and Livelihoods – Lihir Island

As it is broadly understood, the right to adequate housing provides every person an entitlement to “...live somewhere in security, peace and dignity” (Office of the High Commissioner for Human Rights, 1991). On Lihir Island, this right connects to corporate development intervention through IBP2 grant funding, corporate livelihood restoration responsibilities, and community relocation and resettlement processes. Concerns over the degree of corporate respect for this right specifically arises in context to the Kapit relocation process. This community resettlement process has been undertaken by LGL in order for the company to access customary owned land for mining purposes. While many landowners drew on clan connections to access land for the purposes of relocation, the process of

⁹⁶ In the context of the Munun relocation, the community displacement that has occurred cannot be considered ‘voluntary’ as people do not have a right to refuse the flooding or its impacts.

community relocation has nevertheless resulted in a scattering of the community members at dispersed resettlement sites across Lihir. One of the recognised consequences of this has been an increase in tension between relocated landowners and other non-affected island landowners who, as a result of the resettlement process, have come to live side by side (Bainton, 2010). The comparatively luxurious homes of relocated landowners and the ability of these landowners to access financial (compensatory) mining benefits, living beside those largely unable to secure mining benefits, acts to fuel such tensions (Bainton, 2010).

Security of land tenure emerges as being a particularly relevant measure of housing adequacy within this environment, as the establishment of legal tenure may directly connect to a landowner's ability to live in security, peace and dignity (Office of the High Commissioner for Human Rights, 1991). At the time of my fieldwork, security of land tenure for relocated Kapit landowners had not been established by Newcrest (LGL). Indeed, the company may have reduced the relative security of land tenure through the relocation process, thereby reducing the adequacy of housing and reducing a person's right to health (UDHR Article 25; ICESCR Article 12) and right to own property (UDHR Article 17). Given the reported levels of discontent over relocation property rights on Lihir, the establishment of legal tenure could arguably provide a foundation necessary for landowner protection against the risk of forced eviction from their relocated homes, and against personal harassment with respect to property rights issues (Office of the United Nations High Commissioner for Human Rights & UN Habitat, date not stated). Whilst formalised security of tenure may not be necessary for the respect of the right to housing in situations where land tenure is effectively secured through customary connections, in situations where this is not the case it remains a pressing human rights issue.

For those displaced by mining, mining company intervention may also be necessary to ensure the process of relocation supports the 'continuous improvement of living conditions', as required by Article 11 of the ICESCR. It is generally accepted that mining company relocation programmes are expected to enhance living conditions at resettlement sites and should also support the security of livelihoods for relocated residents. IFC Performance Standard 5 therefore advocates objectives for the improvement of "...living conditions among physically displaced persons through the provision of adequate housing with security of tenure at resettlement sites", and the improvement or restoration of "...livelihoods and standards of living of displaced persons" (International Finance Corporation, 2012a, p. 32). The IFC also recognises that compensation alone cannot restore livelihoods or secure livelihood improvements (International Finance Corporation, 2012b, GN11), recognising a corporate role in the provision of broader livelihood support for those displaced, emphasising the need for a

Livelihood Restoration Plan (or a Resettlement Action Plan) throughout the resettlement process (International Finance Corporation, 2012a, PS5(15)). These requirements signal the weight of responsibility that mining companies have for livelihood outcomes associated with resettlement processes and act as a useful reference point for considering relocation on Lihir.

In light of the IFC expectations for corporate intervention to support landowner livelihoods in the case of displacement, it is relevant to ask in context to the Kapit relocation, 'how has LGL supported the reestablishment of landowner livelihoods'? Whilst this question cannot be specifically answered without having a comprehensive understanding of the extent, role and forms of compensation provided to the Kapit landowners and therefore cannot be answered here⁹⁷, it does highlight the importance of the Medium Term Investment Strategy as a form of corporate intervention intended to assist the Kapit community (discussed in more detail in Chapter 8). As this strategy essentially exists as an additional form of landowner financial compensation, the extent to which it can promote longer term livelihood restoration is consequently limited (International Finance Corporation, 2012b, GN11). At the time of my fieldwork in 2014, due to the absence of any other apparent form of corporate intervention directly supporting Kapit landowner livelihoods beyond financial support and compensation, from a rights-based perspective it was unclear to me how Newcrest (LGL) were promoting the longer term livelihood security of the relocated the Kapit people, which was necessary if landowner rights to an adequate standard of living were to be respected.

The right to an adequate standard of living is pertinent to all Lihirians, even those that Newcrest (LGL) deemed to be 'non-affected' by mining. For these 'non-affected' landowners, securing a company-funded VDS home is generally understood to be an opportunity to improve one's standard of living⁹⁸. As stipulated within the IBP2, the role of the VDS is to ensure that all areas benefit from the development of the mine in relation to housing assistance, village waste water schemes, electricity supply and sanitation. However, whilst broadly defined, in practice it is largely interpreted and used as a fund to support housing (Bainton, 2010). When considered through a lens of human rights, the support of VDS housing can be understood as a form of company intervention that is enhancing landowner rights to access adequate housing. While it would seem that the use of this fund as it was initially intended (that being to support more collective forms of community infrastructure, such

⁹⁷ At the time of my fieldwork in late 2014 the extent of landowner compensation was unclear, and Kapit landowners were disputing the extent of compensation received from Newcrest/LGL.

⁹⁸ This community perception that VDS housing enhances living standards exists notwithstanding the fact that there are also common concerns over the limited accessibility of VDS housing and the appropriateness of housing size, design and the durability of construction materials (L42).

as electricity supply, sanitation and waste water disposal) would more readily increase the enhancement of rights for a wider group of people, the company's ability to directly facilitate this will likely be diminished if responsibility for VDS implementation is shifted to the Ward/LLG level as intended by the company.

9.5 Connections to Education

Article 26 of the UDHR states that the right to education should be directed at "...the full development of the human personality and the sense of its dignity...". Because education can support a person's ability to more fully participate within their community, and because the right to education is indivisible and interdependent with all other human rights, the right to education has been recognised for its empowering qualities and is considered important for the transitioning of people out of poverty (Office of the High Commissioner for Human Rights, 1997). Article 13(2)(a) of the ICESCR (1966) details that there are three predominant forms of education underlying this right, including primary education, secondary education (including technical and vocational education), and higher education. Despite it being the duty of the State to protect the varying elements of the right to education, and to take progressive steps to realise this right in circumstances where it is not yet met (ICESCR, 1966, Article 13), companies also arguably have a vested interest in respecting and enhancing this right, as the promotion of education is useful in developing the skill base of the business workforce (Monash University Castan Centre for Human Rights Law & Office of the High Commissioner for Human Rights, 2008).

As earlier discussed in Chapter 8, research findings suggest that on Simberi there is dissatisfaction amongst landowners regarding the scope of mining company support for education, and that on Lihir the LSDP/LMALA are failing to effectively utilise IBP2 funding to promote Lihirian education. However, despite the existence of community discontent being apparent within each case study setting, both Newcrest (LGL) and St Barbara (SGCL) were observed respecting, and going beyond this to enhance the right to education for island residents. While a basis of respect was primarily being achieved through the passive corporate action of not directly causing or contributing to an adverse impact on the right to education, corporate development intervention enhanced the availability of education within each Island community. This intervention occurred via the delivery of flexible learning resource/education centres facilitated by each company, which provided opportunities for respective island residents (including but not limited to employees) to pursue their studies

between the levels grade 8⁹⁹ to 12. In addition, varying forms of corporate assistance have supported school infrastructure upgrades on Lihir and Simberi to enhance the availability of education within each Island context.

Notwithstanding such corporate support, however, the landowners of Lihir and Simberi remain discontented about the limited scope of such intervention. On Lihir Island, for example, research participants reported company support for the Palie Vocational School to be akin to non-existent (either directly or indirectly through the IBP2). This is significant from a rights perspective because technical and vocational education forms a critical part of the right to secondary and higher level education, and also the right to work (CESCR General Comment 13, 1999). In this case, given that the Palie Vocational School will remain an important educational institution on Lihir in the post-mining context, failure to support the school at the capacity building and operational level can be considered a missed opportunity for Newcrest (LGL) to enhance the right to education on the island, and also a missed opportunity to support *gutpela sindaun* and longer term Lihirian development.

9.6 Implications for the Right to Health

The right to health has been broadly described as "... the right of everyone to the enjoyment of the highest attainable standard of physical and mental health" (CESCR, 1966, Article 12.1) and therefore should not be interpreted as a 'right to be healthy' (Office of the High Commissioner for Human Rights, 2000, Clause 8). Rather, the right to health is premised on the belief that each person should have the ability to control one's own health and body, advocating that there should be an equal opportunity for all people to reach their highest level of attainable health (Office of the High Commissioner for Human Rights, 2000, Clause 8), and "... as a right to the enjoyment of a variety of facilities, goods, services and conditions necessary for the realization of the highest attainable standard of health" (Office of the High Commissioner for Human Rights, 2000, Clause 9). The right to health forms an essential component of the exercising of other human rights, encompassing an array of socio-economic considerations that influence and impact the ability of a person to live a healthy life (Office of the High Commissioner for Human Rights, 2000). In the context of the mining sector, there is a moral expectation that mining companies must respect this right and ensure their operations do not adversely impact the right to health of employees and the wider community.

⁹⁹ At the time of my research the Flexible Open Learning and Distance Education Centre delivered by St Barbara on Simberi Island accommodated students between grade 9 and 12. However, if a student was incapable of meeting grade 9 standards, remedial lessons were provided to bring the student up to a grade 9 learning standard.

On Lihir Island, past and current mining companies operating on the Island have enhanced the availability of health care through the establishment of the (publically accessible) Lihir Medical Centre. The accessibility of this health care facility has also been enhanced through the formation of a ring road around the island. On Simberi Island, St Barbara Ltd. are also currently enhancing the availability of this right to health for Island residents, in this case through the funding of a community health extension officer who provides services at the local government-run community health clinic. The company are also further supporting the availability of health care through the provision of emergency medivac support for community members, and also by providing potential opportunities to access advanced medical care via the company health centre. As on Lihir Island, the physical accessibility to health care has also been supported through the formation of a ring road around the island. As both availability and accessibility to health facilities are important components to the right to health (Office of the High Commissioner for Human Rights, 2000), from this point of view mining company intervention on Lihir and Simberi can be seen to be actively enhancing the right to health for Island residents.

Yet while mining company intervention may be positively enhancing aspects of the right to health, community members are concerned with the relative extent to which such intervention is enhancing health in the longer term, given the detrimental impacts on health (deemed by many landowners) to be resulting from mining operations. For example, on Simberi Island where company activities have caused environmental impacts that have effectively reduced the availability of safe and potable freshwater supply in some areas, a failure to respect the right to health also arguably exists.

In terms of the relative extent to which corporate intervention enhances the right to health in the longer term, on Lihir Island, the IBP2 financial benefits and compensation package provided by Newcrest (LGL) anticipate supporting community health through the Lihir Sustainable Development Plan and its associated programmes. As discussed in Chapter 8, the implementation of the LICHP which was originally intended to provide "...a comprehensive community health response for the communities of Mahur, Malie, Masahet, and Niolam Islands" (JTAI, 2013, p. 2), funded¹⁰⁰ through the IBP2. However, the LICHP now solely supports the community health needs of landowners of the mining lease area and excludes the wider Lihirian community from accessing community health benefits through this

¹⁰⁰ To provide an economic appreciation of the nature of this funding, it has been established that between 2009 and 2011, K16,878,879 was channelled through the IBP2 to the LICHP to support community health (Montrose and Health Partners International, 2013, p. 66).

funding¹⁰¹. Despite the fact that it is the government's responsibility to protect the right to health of all Lihirians, the LICHP's decision to exclude the wider community from health promotion and prevention initiatives not only significantly limits Newcrest's (LGL's) ability to support the more strategic health needs of the Lihirian community, but may also itself limit the company's ability to respect the right to health for the people of Lihir.

This assertion that the LICHP's operational policy may limit the company's ability to support the right to health for Lihirians is premised on the established impacts of the mining sector on increased HIV prevalence levels within mining areas in many countries (HIV/AIDS World of Work Branch & International Labour Office (Sectoral Activities Department), 2013). It is recognised that within PNG 'enclave extractive developments' such as mining have resulted in increased transactional sex activities within mining areas, and have consequently increased the risk of contracting HIV within mining communities (Asian Development Bank, Australian Agency for International Development, & World Bank, 2007, p. 95; see also United Nations Development Programme (UNDP), 2014). In 2013 Montrose and Health Partners International found Lihir Island to be a high-risk context for HIV¹⁰² and confirmed that increasing cases of HIV infection are being reported on Lihir (Montrose & Health Partners International, 2013). Given this established connection between HIV and mining, and due to the 'high risk' HIV island status on Lihir, there is arguably a need for Newcrest (LGL) to respect the right to health for Lihirians through active community engagement and ongoing co-ordinated health promotion initiatives aligned with HIV prevention across the island¹⁰³. Accordingly, with the policy approach of the LICHP to restrict health promotion and prevention support to mining lease areas only, it can be seen to be hindering the company's ability to achieve the respect of the right to health through the vehicle of IBP2 funding.

Given the absence of associated forms of mining company support of community-based HIV prevention and awareness for customary landowners being provided by St Barbara (SGCL) across Simberi Island, non-intervention in this case can similarly be seen to be limiting the company's ability to respect the right to health of island residents. This matter is arguably

¹⁰¹ In addition, the focus of the LICHP was on health promotion and it was stressed to me by a research participant (L12) that their activities did not extend to matters connected to disease prevention.

¹⁰² As also recognised in a report by the National HIV/AIDS Support Project, PNG, in 2006 (Hemer, 2014).

¹⁰³ For clarity, the need for positive duties to mitigate harm in order to respect human rights is being argued here. While the responsibility of the private sector to undertake positive duties may be argued to exceed the obligations established by the Guiding Principles, the responsibility of respect requires that business enterprises do no harm. As Ruggie states: "Because companies can affect virtually all internationally recognized rights, they should consider the responsibility to respect in relation to all such rights, although some may require greater attention in particular contexts" (2008, paragraph 24). I argue that the context of mining and HIV awareness and prevention for host communities is one such situation.

compounded on Simberi Island by the fact that the company has no formal HIV programme for company employees (beyond mandatory pre-employment HIV testing). Although company employees were reportedly provided with regular information regarding safe sex and other health related issues, at the time of my fieldwork the company health clinic had no condoms available to provide to company staff to support the practice of safe sex for employees. Notwithstanding the positive company contributions supporting the availability of health care on Simberi Island, it is therefore argued that the failure to actively support more strategic issues of community health, such as HIV awareness and prevention, may hinder community members (and company staff) from accessing their highest attainable standard of physical health.

9.7 Conclusion

Findings from this human rights analysis highlight the direct capacity of corporate intervention to impact both internationally and locally significant human rights. They also illustrate the varying extent to which Newcrest (LGL) and St Barbara (SGCL) are supporting Community Wellbeing and Development Rights on Lihir and Simberi through forms of community development intervention¹⁰⁴. Through the application of a human rights lens, which allows otherwise unheard experiences of human rights to emerge, findings from this analysis assist to disaggregate the impacts of development intervention on human welfare and human wellbeing (Hunt & MacNaughton, 2006). However, as this human rights analysis is uniquely shaped by the life experiences of research participants across two different island communities, it would seem both contradictory and nonsensical to conclude the assessment with summative generalisations regarding these findings. Instead, several higher level observations are offered concerning mining company practice, policy and the value of adopting a human rights lens to mining company development intervention.

On Simberi Island the practice of resource exploration has left a legacy of environmental damage in the form of flooding and waterway contamination¹⁰⁵, which has been reinforced by preceding mining operations. Today St Barbara (SGCL) are left to confront this legacy, which is directly threatening landowner rights to an adequate standard of living, as well as a range of

¹⁰⁴ These findings must, however, only be considered partial, although not without meaning, due to the non-elite landowner bias and the restricted scope of participation that was characteristic of the underlying research assessment process. Further, it should also be noted that because the assessment targets the analysis of mining company community development intervention, wider human rights impacts and dimensions may exist associated within operations not considered here.

¹⁰⁵ Kemp, Bond, Franks, and Cote (2010) recognise that a disconnect between technical water management and human rights within the mining industry is evident.

other human rights including the right to health, property and potentially, the right to life. In circumstances such as this, where there has been a failure to respect human rights, the landowner's right to access effective remedy remains critical (UDHR 8; ICCPR 2) if Community Wellbeing and Development Rights are ever to be secured. The fact that a mining company may be positively contributing to the community and the respect of human rights through unrelated forms of development intervention should not be deemed to offset any human rights infringement (United Nations, 2011).

Making the interface between corporate development intervention and Community Development and Wellbeing Rights more visible enables an informed review of corporate human rights policy to be undertaken. For St Barbara (SGCL), given the absence of an explicit human rights policy, the focus therefore falls on the company's declared value of 'environmental sustainability' (St Barbara Ltd., 2015a) and the company's commitment to work with local communities to improve development opportunities (St Barbara Ltd., 2014a, p. 11) as these values stand connected to the Community Wellbeing and Development Rights identified. While SGCL is going some way to support aspects of community wellbeing and development in practice, it appears that a number of corporate opportunities to enhance local Community Wellbeing and Development Rights are being overlooked.

On Lihir Island the interface between mining company development intervention and Community Wellbeing and Development Rights illustrates how the practical governance of corporate development intervention sits awkwardly against Newcrest's human rights policy goals. In this case the company's corporate intent to maximise positive human rights impacts for communities is constrained by the implementation process for IBP2, the main vehicle for community development on the island. As corporate development intervention provides an important mechanism for companies seeking to promote local level human rights, consequential issues arise as a result of the limited corporate control over community development. For Newcrest (LGL) then, giving effect to the corporate vision to establish 'enduring relationships' with the community, based (in part) on the recognition and respect for human rights (Newcrest Mining Limited, 2013a), may be problematic because development intervention is detached from corporate governance and the recognition and respect for human rights is restricted through existing funding mechanisms. In addition, and more generally, the extent to which Newcrest (LGL) are giving effect to the corporate assertion that they will use their "... influence to prevent human rights abuses occurring in the vicinity of our operations, and will engage in dialogue with stakeholders to promote human rights..." (Newcrest Mining Limited, 2013a) is questionable given the limited degree of engagement

occurring between the company and wider community (discussed in more detail in Chapter 10).

The variable extent to which mining company development intervention can be seen to support locally meaningful human rights on Lihir and Simberi effectively illustrates one of the benefits of using a human rights lens when considering development intervention, making visible both the positive and negative dimensions of corporate development intervention. Not only is it effective in integrating human rights considerations into mining company development intervention, as a normative platform and justice-based instrument, a human rights approach can provide a valuable moral steer for mining companies formulating community development intervention initiatives, thus serving as a corporate tool for navigating intercommunity power dynamics and inequalities that inevitably exist amongst communities. However, the findings from this analysis suggest that if Newcrest and St Barbara genuinely seek to respect and enhance human rights within the communities in which they operate, they must move beyond the conceptualisation of human rights in policy terms to actively conceptualise human rights within practice. Ensuring that forms of corporate community development intervention respect and/or promote the enhancement of human rights is, therefore, an obvious initial corporate step.

In conclusion, by promoting the enhancement of human rights via development intervention, mining companies have an increased ability to remedy human rights burdens and promote human rights benefits within a society. Through the promotion of human rights, development intervention can advance distributional justice within mining communities and, by doing so, can promote social justice. Accordingly, this human rights analysis can be read as an account of distributional justice that reveals the strengths and limitations of development intervention from a justice-based perspective. The following chapter extends this analysis to consider the structural dimensions of social justice connected to mining company development intervention. It does this by examining issues of inclusion and 'inclusive development' relative to mining company development intervention. This extended analysis is necessary because if issues of distributional inequality are ever to be remedied, the causes of underlying distributional inequality must also be recognised and addressed (Fraser, 1997; Hickey, et al.; Young, 1990).

10. The Corporate Rhetoric of Inclusive Development

As discussed in Chapter 4, the concept of inclusive development can generally be understood as "...a process that occurs when social and material benefits are equitably distributed across divides within societies...", which leads to tangible and intangible benefits that enhance human wellbeing and political empowerment (Hickey et al. 2015, p. 5). Within this research, the application of inclusive development as a development ethic necessitates the critique of the procedural aspects of mining company development intervention, which includes the consideration of how the process of mining company community development intervention affects community-level development outcomes. Relatedly, this chapter establishes the relevance of inclusive development to the rhetoric development being espoused by Newcrest (LGL) and St Barbara (SGCL), and compares this rhetoric to the corporate practice of development intervention on Lihir and Simberi islands. In turn, this critique provides insights into the structural dimensions of justice attributed to mining company development intervention within the case study context.

10.1 Opportunities for Inclusive Development

Within the mining industry, opportunities exist to facilitate inclusive development via forms of corporate governance and organisation (Bebbington, 2015). Mining companies can also facilitate inclusive development through planning and consultative processes (ibid.). As argued by Bebbington, "populations can be included or excluded depending on practices and rules governing how resource extraction is planned for, who is consulted and how, and how far the voice of those consulted can affect the unfolding of the extractive economy (and relatedly, how far consultation and participation is managed such that it does little more than legitimate decisions and project designs already made)" (2015, p. 110). As already established in Chapter 7, the extent to which mining companies support human wellbeing through their governance practices, the degree to which they equitably distribute the profits and benefits from mining through development intervention, and the means through which they provide financial transparency, all impact the practice of CSR. These aspects of development intervention can also impact the inclusiveness of development.

10.2 Portraying the Benefits of Mining

Both Newcrest and St Barbara publicly identify and stipulate corporate values on their respective websites that connect to development intervention. To varying extents these companies elaborate on how they intend to give effect to these commitments through action-

based statements and policy guidelines). The key inclusive development narratives that publicly emerge within corporate discourse relating to development intervention are detailed in Table 12 and Table 13.

Table 12: Newcrest’s Development Narratives

Development Narratives Conveyed by Newcrest Mining Ltd.:
<p>“Key principles of strong community relations is the presence of dedicated personnel to:</p> <ul style="list-style-type: none"> - regularly meet with local community members to discuss and listen to their concerns, and seeking ways to develop solutions to meet the community’s needs; and - acknowledge the legacy of our business where we operate, being mindful of the long-term impacts local communities are faced with, and working together to ensure community benefits are maintained long after mine closure. <p>Community agreements between the operations and the communities in which we operate also remain an important mechanism to ensure that Newcrest is supporting community programs that are sustainable and aligned to the needs of the community” (Newcrest Mining Limited, 2014a, p. 26).</p> <p>Newcrest is focused on “...embracing a strong sense of commitment to the local communities around our operations” (Retrieved on 04/04/2016 from http://www.newcrest.com.au/about-us/company-strategy).</p> <p>“Building and maintaining lasting relationships with the communities surrounding Newcrest’s operations is a key component of our vision of being the Miner of choice” (Retrieved on 04/04/2015 from http://www.newcrest.com.au/about-us/company-strategy).</p> <p>“Newcrest understands and upholds fundamental human rights...” (Retrieved on 01/04/2016 from http://www.newcrest.com.au/about-us/company-strategy).</p> <p>Within Newcrest’s Community Policy (2013) they commit to applying the following principles in dealings with communities:</p> <ul style="list-style-type: none"> - “Identify the cultural values, traditions and beliefs of the communities, including indigenous peoples, and respect and respond to those values and beliefs systems” (2013, p1). - Be open and transparent in all dealings with communities and in describing and explaining potential social and environmental impacts that might occur (Communities Policy) - Seek broad community support for our activities (2013, p1). - Commit to developing long-term partnerships that are mutually beneficial over a life of mine time scale (2013, p1). - Ensure communities are fairly compensated for impacts and obtain a fair share in the benefits generated by a development (2013). - Work to apply internationally recognised principles of best practice in all fields of endeavour” (2013, p1). <p>They also commit to:</p> <ul style="list-style-type: none"> - Inform and consult with the community about the Company’s activities and projects” (Newcrest Mining Limited, 2011, p. 1). <i>(Emphasis added)</i>

Table 13: St Barbara’s Development Narratives

Development Narratives Conveyed by St Barbara Ltd.:	
<p>“The group has an ongoing commitment to work with local communities to improve infrastructure, participate in health and education, support local business, and provide venues for leisure activities, and other development opportunities for developing communities in which the group operates” (St Barbara Ltd., 2014a, p. 11).</p>	
<p>St. Barbara aim to “[c]ontinually strive to improve overall environmental performance”, and to “[p]rogressively rehabilitate areas of past disturbance in a responsible manner consistent with current industry standards” (St Barbara Ltd., 2014b, p. 1).</p>	
<p>The corporate vision to be ‘a successful, leading and growing gold company’ is advocated as being underpinned by a foundation of attributes including:</p>	
<ul style="list-style-type: none"> - ‘Environmental sustainability’ - ‘Beneficial relationships with our communities’ - ‘Respect for the rights and aspirations of our people’ - ‘Ethical business dealings’ 	
<ul style="list-style-type: none"> ▪ (Retrieved on 01/04/2016 from http://www.stbarbara.com.au/sustainability/our-environment/). 	
<p>As corporate values the St Barbara advocates that:</p>	
<ul style="list-style-type: none"> - ‘We act with honesty and integrity’ - ‘We treat people with respect’ - ‘We value working together’ - ‘We deliver to promise’ - ‘We strive to do better’ (ibid.). 	
	<p><i>(Emphasis added)</i></p>

As apparent above, Newcrest advocates the adoption of an active corporate role in the distribution of mining benefits, in effect, suggesting that they work to connect communities surrounding their mining operations to the benefits of mining. The development narratives further suggest that fair compensation will be paid to parties impacted by mining, and that the company has a role in ensuring people receive a ‘fair share’ of the benefits generated by mining. Based on the company’s commitment to ‘transparent’ dealings with the community, transparency and fair distribution can be read as being critical to this narrative. In addition to fairness, the relationship between the company and the community emerges as a central theme, portrayed as being participatory, based on consultation, and existing as a type of ‘partnership’ that is mutually beneficial to both the company and communities. While it is not explicitly stated within the website text, the use of the term ‘community’ suggests that it is intended to be a holistic and inclusive construct, implying that a broad community of people *will* experience the benefits of mining. Use of the term ‘partnership’ further assumes that communities that Newcrest partners with have the capacity to effectively operate as a mining project ‘partner’.

In comparison, St Barbara publicly communicates a community development agenda that is more curtailed within the area of environmental and social performance. They convey a corporate 'commitment to work with local communities', to promote community-level infrastructure, as well as a corporate intent to support host communities in the area of health, education and businesses development (St Barbara Ltd., 2014a, p. 11). In parallel to this proactive social development narrative, they assert a narrative environmental management and performance. Amongst other things, this environmental theme purports that the company will "[c]ontinually strive to improve overall environmental performance", and that they will promote the practice of active consultation through stakeholder engagement with respect to corporate activities and projects (St Barbara Ltd., 2014b, p. 1).

The public development narratives emanating from both Newcrest and St Barbara underscore the relevance of inclusive development in connection to mining activities. As illustrated above, these development narratives insinuate the existence of advantageous forms of community inclusion connected to mining. Matters of fairness are raised, commitments are made to community participation and corporate assertions are made about the respect of individuals and of the respect of rights. Together, these development intervention narratives emphasise the importance of individual and group recognition and the role of non-elite participation within corporate practice and delivery of community development intervention. As these narratives essentially support a discourse of corporate action aligned to the common good, they can be understood to exist as forms of corporate rhetoric connected to inclusive development. Rhetoric can be broadly understood as being "...the theory and practice of providing arguments, notably in social and political affairs, which their producers make as convincing – and, in the best cases, as conducive to the common good – as the predicaments in question allow" (Edmondson, 2007, p. 480). In the case of large-scale mining operations, corporate rhetoric, and the corporate actions which give effect to it, are significant because they provide a potential defence against possible claims of corporate misconduct, and exist as a means to give effect to internationally recognised mining industry CSR performance standards.

The connection between development rhetoric and development practice that has been established within earlier chapters provides a logical starting point for exploring the relationship between inclusive development and the practice of development intervention. As established in Chapter 8 in relation to Newcrest (LGL), the practice of development intervention on Lihir Island effectively illustrates the tension that exists between the construct of 'community' in a holistic sense and that notion of partnership. On Lihir Island, the company's partnership with the LMALA acts to constrain the holistic construct of 'community' and, indirectly, limits the distribution of mining benefits across the island. As argued within

Chapter 7, aspects of this governance arrangement can be seen to be inconsistent with the IBP2 development agreement agreed to by the Company, which clearly signals that mining company development intervention was intended to benefit the wider Island community. Accordingly, the extent to which Newcrest is giving effect to its operating principle committed to ensuring that people "...obtain a fair share in the benefits generated by a development" (Newcrest Mining Limited, 2013b) is questionable.

On Simberi Island, consistent with company rhetoric, the practice of development intervention emerges on two levels, the first being related to social development and human wellbeing, and the second being related to environmental issues (as detailed and critiqued in Chapters 7 and 8). While this research does not extend to a review of environmental management and performance, given the existence of ongoing community concerns related to mining-derived flooding and water sedimentation/contamination issues experienced on Simberi Island, it appears that there remains significant room for improvement with respect to environmental mitigation and remedy. The broader extent to which Newcrest (LGL) and St Barbara (SGCL) give effect to their commitments aligned with inclusive development through forms of corporate community participation and engagement will now be reviewed.

10.3 Community Participation and Transparency

"The Company [Newcrest] is not consulting with 'non-affected' communities"
(L24).

The scope of participation and community engagement with non-lease owning landowners undertaken by Newcrest (LGL) on Lihir Island, and by St Barbara (SGCL) on Simberi Island, is limited, ranging from non-existent to consultative in character¹⁰⁶. In the case of Newcrest, even though the Company advocate for active and inclusive forms of engagement with their stakeholders, at the corporate level this is qualified by an understanding that the engagement approach adopted necessarily depends on the stakeholder group in question (2014a, p10). Although it is logical that diverging groups will have diverging needs, on Lihir Island this qualification commonly translates into the everyday practice of corporate community engagement solely focused on mining lease owning landowners, and the exclusion of other

¹⁰⁶ Refer to Chapter 4 for a description of Consultative Participation.

Lihirian landowners from dialogue and participation connected to development intervention (and mining more generally)¹⁰⁷.

Given the discrete geographical Island context, a tension thus emerges between Newcrest's inclusive development rhetoric, concerned with "... embracing a strong sense of commitment to the local communities around our operations"¹⁰⁸, and the practice of community exclusion that is maintained through a lack of community engagement. Research suggests that this practice not only fuels misinformation about company activities and funding entitlements connected to corporate development intervention, but also in turn weakens the company's capacity to give effect to the principles of inclusive development incorporated within their policy mandates. For example, a lack of engagement with the wider Island community arguably limits the degree of corporate transparency at the community level, which can be seen as being contrary to Newcrest's Communities Policy, and in practice limited two-way dialogue with landowners across the broader Island community constrains the company's commitment to ensuring communities obtain a "fair share in the benefits generated by a development" (see Table 11). Furthermore, because Newcrest do not typically engage non-lease area Island landowners in relation to community issues concerning benefit distribution, and given they do not monitor the effectiveness of corporate development intervention within the community against the commitments to Lihirian wellbeing established within the IBP2, broader tensions exist with regards to the practice and delivery of development intervention and the implementation of Newcrest's Communities Policy.

In contrast, at the time of my research on Simberi Island St Barbara's (SGCL's) Environment Department was engaged in a process of conducting a series of village meetings across the broader Island community.¹⁰⁹ As evident from the meeting I observed in mid-November 2014 facilitated by the Environment Team staff, even though the extent of participatory engagement facilitated through the meeting was essentially limited to the provision of information and did not relate to corporate development intervention, it appeared that both men and women within the village community were engaged in the meeting process, and were attempting to use the

¹⁰⁷ In case specific circumstances however, Newcrest may engage directly or indirectly with landowners beyond the mining lease area. For example, as part of the on-going Lihir Agreements Review, an independent company has been contracted to undertake community consultation across Lihir on behalf of Newcrest (LGL). Once the Agreement is signed however, it remains unclear as to whether the company will, directly or indirectly, engage with landowners beyond the lease area about issues of implementation or the delivery of commitments.

¹⁰⁸ Retrieved on 04/04/2016 from <http://www.newcrest.com.au/about-us/company-strategy>.

¹⁰⁹ Such meetings were new on the Island at the time of my research visit, and the meeting I observed in mid-November 2014 in Simberi Village was the first meeting of its kind.

meeting as a forum to communicate issues and concerns about mining operations with staff members. Whilst it was apparent that the staff conducting the meeting lacked the authority to address and respond to some of the concerns raised by the village residents, and that this in turn elicited a sense of frustration amongst some meeting participants, as a forum for communication and transparency it was welcomed by village residents. It should, however, be acknowledged that while these meetings supported enhanced transparency between non-elite community members and the company, Environment Team staff were not engaging community members on social wellbeing and development issues, as these fell under the mandate of the Community Relations Department¹¹⁰. It was therefore apparent that on Simberi Island, social wellbeing and development narratives, such as those concerning health, education and mining-derived benefit distribution, were also being excluded from corporate and non-elite community dialogue.

The limited forms of corporate community engagement associated with development intervention appears to fuel a lack of transparency related to the distribution of mining-derived benefits across both of the case study communities. There is a tension between the mining companies and representative landowner associations regarding the issue of community level transparency. On Simberi Island, for example, corporate engagement with non-elite members of the Island community has historically been a source of tension between the Simberi Landowner's Association and the previous owners of the Simberi mine, Allied Gold. A research participant¹¹¹ informed me that the tension between these two organisations resulted from Allied Gold talking to 'uneducated' landowners, and attempting to 'brainwash' them to challenge the MOA. Another perspective, however, is that Allied Gold engaged with non-elite landowners out of concern that mining royalties, which were earmarked as being for the benefit of the people on Simberi, were being misappropriated by the Simberi Landowners Association. At the time of my research in 2014, it was clear that this sense of tension had carried over into the relationship between the current representatives of the SMAA and the new mine owners, being SGCL. Consequently SGCL mine management appeared to be acutely aware of the potential consequences of alienating the SMAA, in terms of possible delays to gold production.

Similarly on Lihir Island the issue of transparency exists as a source of tension between LMALA and Newcrest (LGL). Between 2010 and September 2014, at the time of my arrival on

¹¹⁰ At that time the Community Relations Department were not active in broader forms of corporate – community engagement.

¹¹¹ Who will not be identified, or coded for identification in any way, to ensure the protection of their anonymity.

Lihir Island, information pertaining to Newcrest's community funding had largely been limited to LMALA, and as part of the Lihir Agreements Review process Newcrest was exclusively directing all IBP2 community funding information through LMALA:

“As part of the Lihir Agreements Review, all information was [directed] to go through LMALA. They said they would distribute that information” (Lihir Island, Anonymous).

While a Newcrest staff member advised me that they were also consulting with the broader lease area community, as part of working with these communities in the process of meeting their corporate obligations, by October 2014 two lease area community groups, the Kapit Community and Landolam Community, had broken away from the representation of LMALA, instead seeking to engage directly with Newcrest (LGL) as part of the review of the Lihir mining agreements. My understanding was that this division was a consequence of LMALA failing to act as an effective representative of the wider lease area community, as a result of the association's interests being primarily focused on the Put Put community. Yet although these two groups had broken away from LMALA, I could not help but be struck by the general level of acceptance that existed within the broader Lihirian community about the exclusionary nature of the scope of corporate-community engagement, even though transparency-related community issues were rife. It seemed to me that, in addition to issues related to transparency, the active responsibility for the governance of development intervention, together with the responsibility for associated forms of community participation and engagement connected to mining, had to a degree become disconnected from the actions of Newcrest within research participant perspectives. This is, however, notwithstanding the fact that landowners across the island continued to feel entitled to benefit from mining, and were, albeit passively, of the view that Newcrest (LGL) had a responsibility for development in this regard.

It wasn't until March 2016 when I returned to Lihir as part of a brief three-day follow-up visit, that I observed Newcrest actively engaging with a community group beyond the confines of LMALA and in relation to community wellbeing and development issues. Newcrest (LGL) could now be observed undertaking open community meetings with Kapit community members¹¹². In one such meeting that I observed, a number of Newcrest's community relations staff were providing information and reporting back to meeting attendees. In response, men and women from within the community were raising issues, for example,

¹¹² I remain uncertain if this group extends across the wider Kapit community or is limited to relocatees.

calling for accountability over the poor condition of roading within the mining lease area, which was in turn acknowledged by company staff. Within this limited forum it appeared that Newcrest had begun to engage the Kapit community in a two-way process of participation, in a form akin to Crocker's 'bargaining' mode of participation (as discussed in Chapter 5). As theorised by Crocker (2010), this mode of participation characteristically involves an exchange between the non-elites and elites, with the degree of non-elite influence being dependent on what they are prepared to give up for the concessions advanced. Given that this meeting was described by a staff member attending the meeting as being the first of its kind for some time, and as this meeting was recognised as being a part of the Lihir Agreements Review 'settlement process', it is possible that this enhanced level of corporate community engagement was itself a concession advanced in relation to the Lihir Agreements Review process. In this sense, the two-way engagement process agreed to by each party, could be seen as being a part of the exchange negotiated as part of securing longer term access to the Kapit area for mining purposes.

10.4 Women, Adverse Inclusion and Exclusion

While the customary landowners of Simberi and Lihir may collectively be navigating the adverse environmental and social impacts of mining, it is well established that it is women who disproportionately experience the adverse impacts of operations within mining communities (Macdonald & Rowland, 2002). Enabling the participation and representation of women and ensuring their voices are heard is therefore critical for securing inclusive forms of development (Nazneen & Mahmud, 2015). This has been reiterated by Keenan and Kemp, who argue that the "[i]nvestment in women and consideration of gender is known to deliver long-term health, education and local development outcomes – this is undisputed in the human development literature. It is reasonable then to suggest that the issue of gender equality and questions of women's inclusion/exclusion should become important focal points in debates about mining and development" (Keenan & Kemp, 2012, p. v). It is also important to recognise that even forms of inclusion can adversely impact human development outcomes if issues of powerlessness and voicelessness that exist within communities remain unaddressed.

Within negotiation and participation processes connected to mining, Macintyre has found that in PNG "...[d]espite women's legal right to participate in this process, their voices are rarely heard and they exert very little influence on the miner, politicians and government officers who make the decisions about mining projects" (Macintyre, 2002, p. 26). While O'Faircheallaigh

(2011) cautions against oversimplifying issues of gender exclusion concerning the involvement of indigenous women in mining negotiations¹¹³, on Lihir and Simberi this research suggests that issues of exclusion, as well as the inclusion of women within mining development intervention initiatives on adverse terms, is reducing the effectiveness of mining company development intervention at the community level.

“The SMAA have a programme (Sustainable Community Development Programme) supporting agricultural development, but [the women] want something that we can touch, see and do, and the money comes straight to us [the women]. The one that comes under the Association, you know, the money comes in, and goes elsewhere before it comes out. We want something that the women can call their own” (Anonymous, Simberi Island)¹¹⁴.

“The Association are the ones who involve us... They realise it is in our government’s policy to involve women in this kind of thing. Our landowner association has been supportive of us, but financing has been hard” (Anonymous, Simberi Island).

“[O]nly men get to make the decisions about mining and its impacts” (Anonymous, Simberi Island).

On Simberi Island a discrete group of women affiliated with Women in Mining Association¹¹⁵ consider themselves to be actively engaged in the process of negotiating access to mining benefits with the Simberi Landowners Association, and with associated negotiations connected to the review of the MOA (1996). One interviewee explained that the central mandate of the Simberi Women in Mining (SWIM) was to secure a connection to access mining royalties for women, as well as to secure further training opportunities. The very nature of the SWIM mandate, being *to secure a connection to access mining royalties for women,*

¹¹³ O’Faircheallaigh (2011) has found that in Australia and Canada, indigenous women have had a role in negotiations connected to mining, either directly or in the agenda setting process. Kemp and Vanclay (2013) further suggest that even though in some cultures women may not be directly involved in decision-making, that this may not necessarily mean they are excluded from influencing the decision-making processes.

¹¹⁴ Because using individual research participant identifiers may run the risk of exposing the identity of research participants and potentially result in research participant harm, all landowner research participants will remain anonymous related to discussions on women, adverse inclusion and exclusion.

¹¹⁵ Women in Mining is a nationwide World Bank-supported organisation, with members that are associated with and/or interested in the mining industry. Their overarching goal is to educate members and public about mining company operations (<http://www.womeninmining.org/>).

reflects the issue of the adverse inclusion and exclusion of women in discussions concerning the distribution of mining royalties to date. Although the SMAA was recognised by research participants to have been supportive of SWIM involvement, SWIM members had difficulty securing the financial support necessary to back their involvement in relation to MOA (1996) negotiations. As the formal negotiation process informing the review of the MOA had been based primarily in Kavieng (the capital town of New Ireland Province), and because travel (and associated funding) was necessarily required to attend these negotiation meetings, the lack of financial support had effectively constrained the direct involvement of women in the negotiation process. Although it might be assumed that women would indirectly benefit through channelling mining royalties through the SMAA, on Simberi Island it appears that women have limited access to the financial benefits of mining, both in terms of royalties and compensation¹¹⁶.

On Lihir Island the exclusion of women from mining negotiations is now well documented. As reported by Kemp, Gillespie and Ramsay (2012), women have previously had to rely on men to represent their interests within mining negotiations over the establishment of the Integrated Benefits Package (2005): “There were no women involved in any formal capacity for either the original agreement of 1995 or the 2000-7 review, either as representatives or signatories” (2012, p. 14)¹¹⁷. In research on Lihir in 2012 commissioned by the Minerals Council of Australia (MCA) and Australia’s Department of Foreign Affairs and Trade (DFAT), an interviewee recalls that:

“In 2007 there was a review, but the women missed out. The consultation process was not good. The company went out and consulted with men and women together, but they should have done that separately... done a proper assessment so that the women could speak out” (Kemp, Gillespie and Ramsay, 2012 p. 21).

Similarly within this research on Lihir Island, the exclusion of women from negotiations and decision-making connected to mining emerged as an issue related to the effectiveness of mining company development intervention:

¹¹⁶ I also note that there was an issue of representation of SWIM, as beyond the discrete group of women affiliated with SWIM (and the families of these women), it appeared that broader awareness about SWIM on Simberi Island was limited.

¹¹⁷ See also Macintyre (2002, p. 27).

“We don’t think women benefit [from mining].... At the moment it is only males involved in the IBP Review, and in all decision-making. Clan companies and all of this, it’s only the males. [But it is] the mother that has to make decisions because she is the manager of the home” (Anonymous, Lihir Island).

“The men in the mine – the big shots, and the men in the village, they don’t accept women’s thoughts, or voice” (Anonymous, Lihir Island).

Given the issue of gender-based exclusion is widely recognised as an issue in mining communities within PNG, and well documented in relation to Lihir and in connection to Newcrest’s operations (see Kemp, Gillespie and Ramsay, 2012), issues pertaining to the adverse inclusion and exclusion of women in forms of mining company community engagement must connect back to the inclusive development rhetoric being asserted by St Barbara (SGCL) and Newcrest (LGL). Even though it is a challenge for companies to develop a response to issues of gender inequality in contexts where women’s rights are not readily recognised (Keenan & Kemp, 2012), the rhetoric of inclusive development imbued within corporate development narratives suggests that the wellbeing of women should be a matter of corporate concern to both Newcrest and St Barbara. After all, women exist as a part of the ‘community’ for which both companies claim they assert that they will respect.

“There must be more training for mothers to know their rights, to read and write” (Anonymous, Lihir Island).

“Some of the women, they don’t fight for their rights... They don’t know how to” (Anonymous, Lihir Island).

The ethic of inclusive development effectively extends theorising around issues of exclusion to go beyond consideration of *who* is included/excluded, recognised or ignored, to consider *what* is included/excluded, recognised or ignored. By failing to address the issues of gender exclusion and/or the adverse inclusion outlined above, Newcrest (LGL) and St Barbara (SGCL) not only limit the manifestation and expression of the agency of women within these island communities, but constrain alternative discourses of knowledge connected to mining company development intervention. By limiting non-elite landowner engagement to nominal, passive and consultative forms of participation¹¹⁸, and as a consequence of excluding or

¹¹⁸ See Crocker’s participation typology detailed in Chapter 4.

adversely incorporating broader non-elite landowning groups from, or within, related development intervention governance and implementation considerations, it denies expressions of non-elite voice concerning the scope and application of mining company community development intervention. Research suggests that this, in turn, reinforces forms of structural disadvantage on Lihir and Simberi, fuelling the issue of powerlessness for those marginalised in the process. Another example of structural disadvantage at the broader level is the extent to which low levels of literacy on Lihir and Simberi islands, inhibit non-elite landowner awareness of the scope of the actual legally premised entitlements to development benefits established by way of mining agreement/s. The inability to read community and benefit sharing agreements (which are often written in English), together with the limited physical access to such documents, practically constrains the expression of agency by non-elite landowners.

10.5 Making Sense of Community Engagement

It is apparent within the discussion above that Newcrest (LGL) and St Barbara (SGCL) adopt varying approaches to community engagement, and that forms of community engagement can change as mining operations evolve. Drawing on the work of Crawley and Sinclair (2003), the continuum below outlines the broader scope of community engagement approaches that exist in connection with mining operations (see Figure 9)¹¹⁹. Conceptualising such a continuum enables the varied community engagement approaches adopted by Newcrest and St Barbara to be contextualised within the spectrum of community engagement approaches potentially available to each company. The spectrum suggests that mining companies should, for ethical reasons, move beyond centralised instrumental management and paternalistic engagement approaches, to forms of community engagement that support two-way learning and community empowerment. As argued by Crawley and Sinclair, a relationship of enduring engagement extends past corporate self-interest, to encompass aspects of power-sharing and joint decision-making between the mining company and community (Crawley & Sinclair, 2003, p. 371).¹²⁰

¹¹⁹ Crawley and Sinclair's (2003) continuum of ethical engagement has been adapted here for broader application and to highlight possible ethical stages in company community relationship building and engagement.

¹²⁰ As noted by Crawley and Sinclair it is also paramount in such a relationship that history is taken into consideration, highlighting the possible importance of the principle of redress (2003, p. 372).

Figure 9: A Continuum of Mining Company–Community Engagement



Within the case study context it is apparent that, with the exception of Newcrest (LGL) within the Kapit community on Lihir Island, forms of non-elite community engagement associated with development intervention typically reside within the lower end of the engagement continuum, thus existing in the form of either centralised instrumental management approaches, such as a form of paternalistic engagement or multi-level interaction. Nevertheless, as illustrated by Newcrest (LGL) in relation to their current approach to community engagement within the Kapit community, mining companies have the ability to evolve to adopt engagement approaches that support two-way communication and learning, and enduring forms of engagement, through promoting ‘thicker modes’ of community level participation (see Crocker, 2008) and community level agency.

10.6 Rationales for Exclusion

Whilst the continuum suggests that for ethical reasons mining companies *should* promote more enduring forms of community engagement, this research suggests that the corporate rationale for adopting more inclusive and participatory forms of community engagement may

not always be ethically driven. On Lihir Island for example, it appeared that higher-end forms of community engagement were limited to engagement with LMALA and to landowners of the Kapit community, the latter being an area that Newcrest (LGL) had an immediate interest in securing land for mining purposes. This in turn suggests that profit-orientated motivations essentially inform the scope of corporate community engagement approaches adopted by Newcrest. In contrast, on Simberi Island, the targeted discourse of community engagement emerges as strategic. While existing forms of community engagement on the Island may indeed be in part ethically motivated, because the parameters of non-elite community engagement neglect matters concerning social development (such as health promotion and education, as well as broader issues of redress), the exclusion of human development and wellbeing orientated discourses within corporate community engagement similarly appear to align with a profit-based logic. That logic appears to be to avoid the potential for costs and tension with the SMAA, which may be a result from a more inclusive corporate community development discourse.

These findings are theoretically supported by the work of Kapelus (2002), who (as discussed in Chapter 2) argues that corporate intent always underlies the scope and nature of corporate social responsibility programmes. In line with such thinking, the extent to which mining companies currently foster participatory forms of community level engagement on Lihir and Simberi, and consequently the degree to which they promote a parity of participation¹²¹ necessary for recognition and inclusive development, can be read as a reflection of corporate intent. Having recognised that corporate intent influences the scope of community engagement, it is logical that varying corporate motivations may result in diverse approaches to community engagement. Related to this Benson and Kirsch's (2010) theory that mining company disengagement with communities can be an intentional corporate strategy adopted as a means to limit corporate engagement on the subject of social and environmental externalities (also discussed in Chapter 2), can be applied to further make sense of the research findings. As both on Lihir and Simberi it can be argued that, to varying degrees, mining companies may be intentionally disengaging with non-elite landowners on the subject of development in an attempt to delegitimise the existence of these issues to mining company practice.

Accordingly, the work of Kapelus (2002) and Benson and Kirsch (2010) can be applied to the research findings to explain why there has been limited corporate action taken to address

¹²¹ As established in Chapter 5, 'parity of participation' is a term adopted by Fraser to describe the need for a person to be able to interact as a peer and on par with others within society (2003, 2008, p. 16).

issues of gender inequality (and the adverse inclusion of women) within development intervention, and why select groups and discourses have been excluded from, and within, corporate community engagement. As illustrated by Newcrest (LGL) on Lihir, only when the level of corporate risk posed by the externality issue increases, does the company appear willing to promote an inclusive development approach and promote dialogue on human development and wellbeing issues. Thus for those non-elite Island landowners that pose limited corporate risk, such as within the non-lease owning Island community on Lihir Island, the company maintain their largely detached and disengaged approach to development intervention. On Simberi Island it can subsequently be suggested that St Barbara (SGCL) may be ethically motivated to engage on select issues, but that an instrumental risk-orientated logic acts to limit the scope of corporate non-elite community engagement, constraining dialogue on social development and wellbeing issues.

10.7 Conclusion

This discussion illustrates that the rhetoric of inclusive development, as promoted by Newcrest and St Barbara, does not always align with the practice of mining company community development intervention. Instead it emerges that exclusion, in its varying forms, can be incorporated as an intentional component of development intervention, running counter to the inclusive development narratives advocated at the corporate level, and more broadly, counter to the narratives encapsulated within the development agreements that are anticipated to facilitate and secure mining benefits for landowners across each Island community¹²². As a consequence of this inconsistency between corporate rhetoric and the discourse of development intervention in practice, structural dimensions of disadvantage become established and are further reinforced through and across mining company development intervention within these mining communities.

With the structural dimensions of inequality and disadvantage being entrenched by mining company development intervention (facilitated by forms of exclusion and adverse inclusion associated with corporate community engagement), existing forms of development intervention can constrain expressions of voice and agency by non-elite landowners within the case study context. Accordingly, current forms of mining company development intervention practice on Simberi and Lihir may be problematic in human development terms, because the promotion of human wellbeing, and the associated manifestation of *gutpela sindaun*, requires the promotion of mining company development intervention that recognises the Community

¹²² See Chapters 6 and 7 for discussion about the scope of the MOA 1996 and the IBP2.

Wellbeing and Development Rights of customary landowners, and the entitlement of all island landowners to receive a fair share of the benefits from mining. In addition, because varying forms of development intervention can be observed fuelling social inequality and reinforcing structures of disadvantage across Simberi and Lihir, mining company development intervention can be observed as failing to promote socially just community development outcomes.

11. Opportunities to Advance Meaningful Development

This chapter draws together the empirical findings from this research to establish a set of key insights regarding the capacity of mining company development intervention to facilitate locally meaningful development on Lihir and Simberi islands. Following an overview of the critical research observations established in earlier chapters, I identify a range of action-orientated conclusions that can be drawn from this research. I also argue that opportunities exist through which Newcrest (LGL) and St Barbara (SGCL) could more readily advance locally meaningful forms of development within the case study context. As argued below, although mining companies do, at times, face a conundrum between the pursuit of local development and the pursuit of gold production, the adoption of a human rights approach exists as an unexplored avenue for mining companies to add development within the Lihir and Simberi island communities.

11.1 Critical Research Observations

As established in earlier chapters, although the customary landowners of Lihir and Simberi have varied histories and traditions, they commonly aspire to a culturally embedded form of development that is supportive of *gutpela sindaun*; that will deliver tangible improvements to people's lives; and that will broadly support the advancement of living standards for the community majority. It is clear from this research that many landowners believe that large-scale mining is an opportunity to achieve meaningful forms of development, and that they are entitled to benefit from mining as they are the ones who have borne the social and environmental costs of mining operations. For these people, some of whom have lost their homes, land, rivers and/or sea to mining, meaningful development intervention must further be conceptualised in terms of having both ameliorative and affirmative development functions. Forms of development intervention can only be meaningful if the adverse impacts of mining are adequately remediated, and ameliorative actions are reinforced by affirmative forms of development action. For those not directly environmentally impacted by mining operations within the case study context, it is nevertheless indisputable that their social and economic worlds have been transformed by the advent of mining. For this reason, these people also seek the benefits that they originally believed and/or were promised would eventuate from mining.

Notwithstanding the existence of documented mining company development obligations, it is apparent from this research that corporate governance, and the associated practice of

development intervention, can limit the capacity of development and benefit sharing agreements as a development tool. The establishment of development agreements that result in ambiguity over specific development commitments; related issues of interpretation; and cases of agreement violation or breach, can limit the effectiveness of development intervention. Furthermore, even though Newcrest (LGL) and St Barbara (SGCL) may be advancing varying ameliorative and affirmative forms of development intervention deemed significant by landowners, research findings illustrate that mining company community development support can result in development benefits being captured by an elite minority, even when mining company intervention was intended to reach the wider Island community.

The issue of elite mining-benefit capture not only signals the complexities of the practice and governance of development intervention, but also reflects the contradiction between the egalitarian ideal of unity and the influence of individual autonomy within the research context (as discussed in Chapter 6). While this research does not examine the issue of elite benefit capture in detail, it is noted that current community benefit sharing agreements¹²³ are intended to benefit people the wider case study context, including both elite and non-elite landowners. Therefore, notwithstanding the contradiction between egalitarian unity and individual autonomy apparent within the case study context, elite landowners initially agreed (via community and benefit sharing agreements) that non-elite landowners have a right to share in the benefits of mining derived wealth. In addition, it is also apparent from this research that due to the strength of the profit-orientated logic that underlies mining as an enterprise, there is a corporate reluctance to challenge the status quo of development intervention with respect to governance and related forms of practice, as doing so may strain or displace the two-way patron–client relational dynamics that act to safeguard ongoing gold production. It is noted that issue of elite benefit capture related to resource extraction activities is not unique to Lihir and Simberi islands, and has been identified by a variety of international researchers in a range of locations (e.g. see Kapelus (2002); Heisler and Markey (2013); Honke, (2013) and Rajak (2011)).

Within this research, it emerges that the governance of mining company development intervention is actually fuelling forms of inequality and disadvantage. As discussed in Chapter 10, forms of exclusion and adverse inclusion are currently being advanced by both Newcrest (LGL) and St Barbara (SGCL) as a result of the scope, and form, of corporate–community engagement and participation. In turn, related practices deny and constrain the manifestation of non-elite landowner agency, limit the expression of non-elite voice, and fail to acknowledge

¹²³ Referring to the IBP2 and the MOA (1996), as operational at the time of fieldwork in 2015.

the (often unrecognised) rights of customary landowners that are necessary for the promotion of meaningful development. This research finding is consistent with the extractive sector and development focused research undertaken by Idemudia (2009b) in Nigeria (as discussed in Chapter 3). Idemudia (2009b) concludes that failing to address and reduce issues of voicelessness and powerlessness within host communities undermines the effectiveness of extractive sector corporate community development projects. As corporate–community engagement and participation practices appear intentional on Lihir and Simberi, and because these practices implicitly help to circumvent any direct challenge to established patron–client relationship dynamics, it is further argued here that this aspect of corporate development intervention may be intended to limit the manifestation of human agency in line with the primary profit-orientated goals of mining operations.

11.2 The Relevance of Mining Company Good Governance?

Given the mining industry typically frames the importance of ‘governance’ in line with the mainstream discourse of ‘good governance’ (as discussed in Chapter 3), it is useful to consider the critical research observations (detailed above) within this discursive frame. From this perspective, the three-part development ethics research lens applied to this research, premised on wellbeing, human rights and inclusive development, is industry relevant as it can help foster mining company good governance. In this regard, the related research findings have the capacity to constructively expand mining industry and development knowledge and reveal opportunities for mining companies to enhance the effectiveness of forms of intervention to contribute to meaningful forms of community level development. As such, this encapsulates the very purpose of applying the development ethics lens, which is to use the conclusions of development ethics analysis to “... inform the scope and implementation of future ‘value-sensitive action’” (Gasper, 2004, p.xii).

A number of action-orientated conclusions can subsequently be drawn from this research. Firstly, the most obvious is the need for mining companies to refocus their development intervention work to recognise local conceptions of the good life, and to promote forms of development intervention that actually give effect to such aspirations. Relatedly, there is a need for mining companies to add value to local communities by building on ameliorative forms of intervention with affirmative development duties that support locally meaningful outcomes. Investing in forms of development funding that enhance Community Wellbeing and Development Rights is one corporate strategy that could be pursued to advance such a programme for action. This research has also demonstrated that for more meaningful forms of development intervention, mining companies need to incorporate sustained forms of

corporate–non-elite community engagement in the form of two-way communication and learning and enduring forms of engagement (as detailed in Figure 9). Development programmes should also pursue community-level capacity building in order to support the effectiveness and durability of community development outcomes.

As highlighted by this research however, profit-orientated motivations are relevant to the scope, practice and governance of development intervention. Therefore, in order to understand how mining companies can advance more meaningful forms of development within the case study context, it is also necessary to move beyond the discursive frame of good governance and further consider what it is that current forms of corporate development intervention actually achieve? When assuming this more critical lens, mining company community development intervention on Lihir and Simberi islands can, to varying degrees, be observed as operating as a corporate security mechanism to maintain ongoing gold production. On Lihir Island for example, the established patron–client relationship between Newcrest (LGL) and LMALA, together with the corporate detachment from development intervention, suggests that corporate intervention is instrumentally managed to secure mining operations. The failure of mining company intervention to promote the espoused LSDP objectives of parallel, balanced, sustainable and stable development, and the corporate reluctance to directly engage the wider non-elite community on the matter of social development, further suggests that advancing locally meaningful forms of development across Lihir Island was not a priority for the company at the time of my fieldwork.

In contrast, on Simberi Island the securitisation of mining through the practice and governance of development intervention was less overt, and can be described as being managed in a manner that helps maintain a delicately balanced relationship between the company and elite community SMAA members. It was suggested to me on several occasions by non-elite landowners across Simberi Island that the process of development agreement (MOA) renegotiation was being intentionally drawn out by the company to bide time for the continuation of mining operations, negating the need for the company to more actively support the local community. Whether or not there is any truth to such speculation, the fact that community members raised this as an issue, signals a potential challenge to the legitimacy of corporate actions. The revised content of the (draft) MOA was also relevant from a security point of view. As discussed in Chapter 7, this draft document reinforces the position of the

SMAA in terms of access to mining royalties¹²⁴; fails to directly secure corporate commitments to education and health on the island (which are development areas central to *gutpela sindaun*); and the provisions of the draft agreement stipulating corporate commitments to develop community infrastructure, allow for a significant degree of corporate discretion in terms of implementation. Although the development consequences of this new agreement are yet to be seen, it provides a weak foundation from which to build future forms of meaningful community development. However, if successfully agreed to, it will act to secure ongoing mining operations on the island.

11.3 Opportunities to Add Value to Communities through Mining

Although a dialectical tension appears to exist between the corporate use of development intervention as a means to secure ongoing mining company operations, and the application of corporate development intervention to advance locally meaningful forms of development, this research suggests that opportunities exist for mining companies to promote meaningful development. It is argued here that mining companies have the best chance of addressing the imbalance between the costs and benefits of mining when corporate profit-based motivations interface with ethical intent. In turn, this conceptual space provides a pragmatic entry point for advancing development intervention by companies seeking to add value to communities through mining. This research further suggests that this space could be maximised by negotiating or navigating through the politics¹²⁵ of equitable and fair forms of development intervention by drawing on the respect of human rights as a means to add development value within communities.

On Lihir and Simberi islands, the process of ‘adding value’ will require a combination of ameliorative and affirmative forms of development attention targeting the issues of remediation, livelihood security, land rights, environmental damage and living standards. This will be necessary in order to address the social and environmental externalities of mining that have the potential to result in community level harm and vulnerability¹²⁶. It also must

¹²⁴ To recap this aspect of the discussion refer to Chapter 7, which highlights amongst other things that within the draft MOA only landowners directly affected by mining will qualify for cash entitlements through the cash component of royalties. This marks a change from the original MOA 1996, which more broadly directs mining royalties to benefit the people of Simberi via the form of projects and services.

¹²⁵ The term ‘politics’ as it is referred to here is taken to mean “...all the processes of conflict, co-operation and negotiation on taking decision about how resources are to be owned, used, produced and distributed” as well as related “...struggle over ideas (as well as resources)...” (Hickey et al., 2015, p. 5).

¹²⁶ “Camacho, following Goulet, makes explicit the link between poverty and vulnerability as susceptibility to harm, arguing that ‘[p]oor people experience underdevelopment as vulnerability’ (2010, 144). But this is also true when individual (physical and economic) well-being is improving but one lacks any meaningful control over the ends and

necessarily include the realisation that inequitable forms of mining benefit allocation, and forms of development intervention that reinforce inequality and disadvantage, will be counterproductive for mining companies who genuinely seek to support meaningful development, even if this objective is secondary to their goal of making a profit. Focusing in on the corporate obligation to respect human rights may be an effective starting point for addressing these issues. Bridging ethical and profit-orientated corporate motivations, the respect and promotion of locally contextualised human rights has the potential to be used as a platform to consolidate the benefit of mining at the community level, and additionally, may be a useful moral steer for companies seeking to negotiate the politics of development intervention.

For example, within PNG mining companies have the capacity to promote and align forms of corporate development intervention with locally significant Community Wellbeing and Development Rights. Within the research context, a total of eight core Community Wellbeing and Development Rights are recognised to exist (refer to Table 10). As these rights reflect principles of development that are locally embedded, structuring forms of corporate development intervention around the enhancement of these rights, or at least in a form that targets the respect of these rights, exists as a potential means to give effect to corporate human rights and community-related policy statements and rhetoric. Even though Community Development and Benefit Sharing Agreements may already be established, companies retain the discretion to apply their corporate agency to support the enhancement of these human rights through socially meaningful forms of corporate community investment.

Within PNG the state has the capacity to expand this space for mining companies to promote meaningful community-level development through mandating an effective system of corporate community development monitoring and reporting. The potential for interpretational or implementation-based variances to community development agreements emphasises the need for the independent monitoring of community development and benefit-sharing agreements, as well as the related importance of accountability and transparency mechanisms between mining companies and the wider non-elite community¹²⁷. As argued by Utting and Marques, there is now a recognised “... need for mechanisms that oblige corporations to answer to various stakeholders, allow victims of corporate bad practice to seek

means of those improvements. Vulnerability, then, is a concept that can be applied equally to economic and physical security and to agency” (Kosko, 2013, pp. 296-297).

¹²⁷ Recognition that monitoring and accountability reporting is important for effective CSR and related forms of development are not new, see Utting (2007), Newell (2002), and Banks (1999).

redress, and entail consequences for companies that do not comply with agreed standards” (2010, p. 5). The corporate monitoring of development outcomes related to development and benefit-sharing agreements could therefore be mandated by the State as a method of promoting more effective forms of mining company community development intervention.

11.4 The Significance of Corporate Intent

While this research recognises the importance of locally meaningful development for customary landowners on Lihir and Simberi, and attempts to locate and expand the space where mining companies have the opportunity to add value to communities at the same time as making a profit, the profit-orientated logic of mining companies remains a significant hurdle for the achievement of meaningful community level development outcomes. As already established within literature, when corporate development initiatives are driven by profit-orientated objectives, and when they are engineered, managed or manipulated as a means to secure ongoing mining activities, development intervention will be less effective in supporting meaningful development outcomes (Kapelus, 2002). Furthermore, where legitimate human rights claims are made beyond public view, and where they do not result in adverse reputational consequences for mining companies, such claims may have minimal impact on influencing the scope and nature of mining company intervention (Wettstein, 2009).

Indeed, on Simberi and Lihir, the geographic isolation of mining operations, the limited presence of the State, and the relatively contained reputational consequences for interpretational or implementation variances to community development agreements, may in part explain the corporate apathy that exists with respect to the variable beneficial extent of social development outcomes derived from mining. In such circumstances, where mining companies lack the necessary motivation to exercise a level of corporate agency necessary to advance meaningful community development outcomes, companies may instead favour limiting their support for host community development to matters directly related to a clear business case for doing so. This, in turn, highlights a key challenge relevant to the implementation of the action-orientated research conclusions detailed above.

Yet, notwithstanding this challenge, Newcrest and St Barbara do have responsibilities related to the facilitation and delivery of community-level development. They also have the opportunity to more readily support locally meaningful development outcomes. Thus, although many customary landowners feel frustrated and disappointed over the lack of meaningful development outcomes within their communities to date, the majority also remain hopeful that mining companies will, at some point, govern their operations in a manner more supportive of

local wellbeing and development values. It is within this frame of hope that these critical research findings are orientated towards optimism for the future.

11.5 Conclusion

In summary, opportunities exist to enhance the effectiveness of mining company development intervention to promote meaningful forms of community development on Simberi and Lihir islands. Within the discussion above, a number of action-based conclusions have been recommended to better orientate mining company community development intervention towards locally meaningful development outcomes. Although these action-based conclusions promote good governance, they nevertheless exist in the domain of gold production. Recognising that the profit-based objective of gold production and the promotion of meaningful forms of development will not necessarily organically align therefore becomes an essential part of this discussion. As illustrated by this research, the tension that exists between the promotion of good governance, and the instrumental use of development intervention to secure mining operations, can inhibit the effectiveness of such intervention for development purposes. However, while this issue initially seems insurmountable, and in some cases likely will be so, this research highlights that mining companies do have the capacity to bring about more meaningful outcomes at the local level. It also suggests that these opportunities will be enhanced when corporate profit motivation combines with ethical intent. However, if such development initiatives are to be successful, they will need to navigate the politics of development intervention in a manner that advances equity and fairness. It is possible that the failure to do so will likely result in mining, and forms of mining company development intervention, doing more harm to communities than good.

12. Conclusion

This thesis has considered the extent to which community development intervention undertaken by LGL (Newcrest) on Lihir Island, and by SGCL (St Barbara) on Simberi Island, actually supports, and has the capacity to support, locally meaningful forms of development. Although I have provided a critical account of the current state of mining company development intervention within the research context, it remains appropriate to conclude this research within the frame of hope. Failure to do so, I believe, would dismiss the community aspirations that exist for the LGL and SGCL to support locally meaningful forms of wellbeing and development. In the following discussion I conclude by outlining the contribution to knowledge made by this thesis, and by summarising the key insights regarding the effectiveness of mining for human development in New Ireland Province. I also recount some of the challenges and potential opportunities for mining company development intervention for the promotion of meaningful development on Lihir and Simberi, and reflect on whether I have honoured my original emancipatory research intent.

12.1 Contribution to knowledge

This thesis contributes to knowledge and understanding of the field of mining and development in three different ways.

Firstly, the community expectations and aspirations for mining-derived development documented as part of this research reaffirm the significance of mining for local level development in mining communities in PNG. In doing so, this research provides new insights into the importance of mining benefit and development agreements for PNG mining communities, and illustrates how mining company practice together with the governance of these agreements can impact on the value of these agreements from a community perspective. Relatedly, this research adds to existing extractive sector development literature, to illustrate the importance of both affirmative and negative injunction duties (Idemudia, 2009b; Idemudia and Ite, 2006) to mining company practice in PNG, and for the meaningfulness of mining company community development outcomes.

Secondly, the Community Wellbeing and Development Rights Framework developed and applied as part of this research, provides an original and innovative framework for advancing culturally nuanced, yet internationally recognised, human rights thinking for evaluating the effectiveness of mining company community development intervention. The development and

application of this framework responds to a call within development literature, for human rights theorising to overcome the cultural relativist – universalist human rights binary (Cowan, Dembour & Wilson, 2001; Gallhofer, Haslam & van der Walt, 2011) (as discussed in Chapter 4). Accordingly, this research is successful in grounding internationally recognised human rights norms in Pacific values relating to social justice and welfare for all (Huffer and Qalo, 2004) and expands alternative understandings about human rights. The Community Wellbeing and Development Rights framework also has the potential to be applied to evaluate the effectiveness of other extractive sector community development initiatives across the Pacific.

Finally, this research responds to the need for extractive sector CSR related research to look beyond what should be practised (Ranängen and Zobel, 2014), to consider and investigate extractive sector CSR implementation issues. This research does this by examining the practice and governance of development intervention, to reveal causes for the disjuncture between corporate forms of development intervention and local appreciations of meaningful development. Relatedly, this research also highlights how the structural dimensions of disadvantage become established, and are reinforced through mining company development intervention. The structural causes of poverty, politics, and the role of mining often remain excluded from consideration within corporate community development responses targeted at the broader population of each Island. This thesis shows that without consideration of structural issues, forms of development intervention have the capacity to worsen the development situation in PNG. Accordingly, this research adds to a growing body of empirical research (e.g. Hughes, 2016; Idemudia, 2009b; Kuir-Ayius, 2016) that is concerned with understanding the effectiveness and the potential for private sector development intervention to support locally meaningful development.

12.2 Challenges for the promotion of meaningful development

In terms of the key elements of the thesis argument, I have argued that both LGL (Newcrest) and SGCL (St Barbara) have the ability to further advance locally meaningful forms of development on Lihir and Simberi islands, but that their corporate capacity to do so is often constrained by the tension between corporate profit-orientated and community wellbeing-orientated objectives. While it has been demonstrated that the principles of human wellbeing, human rights and inclusive development are categorically important for meaningful forms of community development within the case study context, this research highlights that the securitisation of mine assets, together with the preservation of gold production, in practice can subsume the significance of these normative development ethics. As illustrated throughout

this research, due to the profit-orientated agenda of mining, the disconnection between development rhetoric and meaningful forms of development practice is not something easily overcome.

As a consequence, mining company development intervention initiatives on Simberi and Lihir Islands have resulted in an array of disappointing development outcomes for local landowners. While SGCL (St Barbara) and LGL (Newcrest) do support some forms of health, education, and housing intervention that is locally meaningful and valued, respective to the development mandates enshrined within Community and Benefit Sharing Agreements, and conveyed through corporate development rhetoric, the current scope of community development intervention often falls short of community development expectations. Beyond this general observational conclusion, this research specifically highlights the significance of the governance of community development intervention for the respect and enhancement of human rights within communities adversely affected by mining operations. Where corporate governance and associated forms of development implementation fail to deliver proactive forms of intervention necessary for the respect of human rights, then outstanding human rights issues can be deemed to exist. In turn, the extent to which mining company practice may be deemed 'socially responsible' can also be called into question.

I have also argued that the security of gold production is the dominant impetus for mining company development intervention on Lihir and Simberi islands. While more ethical development orientated motivations may also exist, and to a certain extent and at various times may factor into corporate decision-making pertaining to development intervention, the securitisation of mine assets and the preservation of gold production processes appears to dominate decision-making. This situation translates into a complex and highly political environment for implementing mining company community development projects. On Lihir Island for example, where large sums of money are invested by LGL (Newcrest) under the IBP2 into the Lihir Sustainable Development Plan via LMALA, the Company's governance approach to mining company development intervention detaches the Company from the implementation of development intervention to a significant extent acting to depoliticise corporate actions. The IBP2 funding allocation process is itself portrayed as a technical process, subsumed within a set of fixed and discretionary expenditure obligations and informed by a related budgeting and accountability process. This research suggests that as a consequence of LGL (Newcrest) channelling substantial aspects of the discretionary funding provisions through LMALA, it limits the extent to which the broader populace of Lihir (who are expected to benefit from the IBP2 agreement) can gain access to IBP2 benefit streams. The technical process that encapsulates the IBP2 funding allocation process, together with the

limited extent of non-lease area landowner agency, and the ongoing denial of unrecognised landowner agency by LGL (Newcrest), further constrains the capacity of non-lease area landowners to challenge the institutional arrangements that discount them from, and within, the process of benefit distribution.

Notwithstanding the fact that development intervention has resulted in a set of disappointing development outcomes on Lihir and Simberi, I conclude that LGL (Newcrest) and SGCL (St Barbara) still have the opportunity to promote locally meaningful forms of development.

12.3 Hope for the Future

For many landowners within the case study context, the existence of mining continues to provide a source of hope for a better life. Even though for some, mining has brought about significant and adverse socio-environmental impacts that undermine livelihood viability, people nevertheless remain hopeful that mining companies will take action to re-orientate their community development intervention to more effectively support local aspirations for wellbeing and development. Within this thesis I argue that aligning mining company development intervention with the respect and enhancement of human rights exists as an opportunity for SGCL (St Barbara) and LGL (Newcrest) to do this. I also argue that the respect and enhancement of Community Wellbeing and Development Rights exists as a development tool for other extractor sector operators seeking to advance community development intervention in a manner that reduces community-level susceptibility to harm, and which adds value to communities.

The potential for a Community Wellbeing and Development Rights framework to be applied as a development tool to improve local development outcomes is strengthened by the existence of documented mining company community development commitments. Both LGL (Newcrest) and SGCL (St Barbara) have responsibilities relating to various aspects of community level development and they also have a need to maintain a social licence to operate. Within New Ireland Providence, existing forms mining company development initiatives are therefore underpinned by both a sense of corporate obligation to affected communities, and the assumption that development intervention exists as a means to help secure mine assets and the access to land. While tensions exist between these corporate motivations, such tensions do not preclude the potential for meaningful community level development outcomes. As recognised by Kapelus (2002), a sense of corporate obligation has the potential to result in the construction of CSR programmes with more morally discerning development orientated CSR tools. As the Community Wellbeing and Development Rights framework has the capacity to

bridge ethical and profit-orientated motivations, to the benefit of both communities and mining companies, it therefore has the potential to provide a pragmatic way forward for mining companies seeking to advance more meaningful community development outcomes.

In conjunction with focusing corporate development intervention towards the respect and enhancement of locally significant human rights, I argue that increased forms of corporate – community accountability with respect to investments in local level development, could improve the capability of SGCL (St Barbara) and LGL (Newcrest) to promote meaningful development outcomes within New Ireland Province. At the time of my research, neither company monitored the effectiveness of community and benefit sharing agreements from a development (or human rights) perspective. This is relevant from a development perspective because the extensive financial investment in development intervention is of little consequence to the non-elite Island majority unless it actually promotes meaningful development. In addition, because the non-elite landowners on Lihir and Simberi arguably have an extremely limited ability to access such agreements, the content of these agreements remains somewhat of an enigma to the wider non-elite community. Given formal benefit sharing and development agreements are important to both ameliorative and affirmative forms of development intervention, community and benefit sharing agreements need to be efficiently monitored, and the results of this monitoring need to be routinely and transparently made accessible to the wider non-elite population. As a consequence of the dominance of the profit-orientated logic to mining companies and the recognised issues of elite benefit capture with each case study community, such accountability needs to be directed by the State if it is to be effective.

12.4 Conclusion

As I conclude this research, it is appropriate to reflect on the purpose of this research and on whether I have fulfilled my emancipatory research intent. This research was premised on a need for more evidence of how corporations do community development and to better understand both the potential and risks associated with this. I also undertook this research in the hope of generating knowledge for the purpose of social change that would have a real world effect – but have I achieved this? Within this research I do not challenge the existence of the capitalist mining enterprise, nor do I suggest that the people of Lihir or Simberi would be better off without mining. Instead, the findings of this research remain true to the voices of community members as they have been shared with me, and to the wellbeing and development values as held by landowners within the case study context. In line with these community voices and values, I have submitted a concept of meaningful development

premised on the notion of societal advancement and 'progress' toward a 'better' standard of living, and I focus on opportunities to promote more meaningful forms of community level development within the territory of extractive sector operations and profit-orientated logic. Importantly, this research documents the community wellbeing and development values held by research participants and scrutinises current forms of corporate development intervention against these values. It also critically examines corporate actions in relation to documented corporate development obligations, and against locally significant international human rights norms. By doing so, it promotes transparency and accountability between mining companies and communities. It also recognises that large scale mining is central to hope for enhanced forms of wellbeing and development on Lihir and Simberi, reflecting and reiterating the importance of the widespread desire for the fair distribution of mining-derived benefits. As such, I am comfortable that I have given effect to the purpose of this research and that I have honoured my emancipatory research intent.

What might this research mean in the context of the wider post-2015 global architecture for development? As stated at the beginning of this thesis, the mining sector is considered to have a role in the achievement of the SDGs. Specifically, the World Economic Forum (2016) has suggested that mining companies have the opportunity to leverage mining activities to advance the achievement of the SDGs. Within New Ireland PNG however, this research suggests that the current ability to leverage mining processes to promote meaningful forms of development comes into tension with the profit-orientated objectives of mining activity. More broadly contextualised, this in turn suggests that if the mining sector genuinely seeks to realise the opportunities that exist to fully leverage mining to promote the SDGs, then mining companies must first stop leveraging development opportunities to secure mining.

13. References

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14. Appendices

Appendix 1: Sustainable Development Goals

- Goal 1: End poverty in all its forms everywhere
- Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- Goal 3: Ensure healthy lives and promote well-being for all at all ages
- Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- Goal 5: Achieve gender equality and empower all women and girls
- Goal 6: Ensure availability and sustainable management of water and sanitation for all
- Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all
- Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- Goal 10: Reduce inequality within and among countries
- Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable
- Goal 12: Ensure sustainable consumption and production patterns
- Goal 13: Take urgent action to combat climate change and its impacts*
- Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
- Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
- Goal 17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

(United Nations General Assembly, 2015, p. 14/35).

Appendix 2: The Mining Act (1992)

The PNG Mining Act (1992) includes the following provisions:

- **Section 2: Interpretation**

"landholder" means -

- (a) a person who is recognized as an owner of customary land; or
- (b) a person who is in occupancy of Government land by virtue of an agreement with the State; or
- (c) a person who is the owner or lawful occupant of land other than customary land or Government land;

- **Section 3: Consultation**

- (1) A development forum shall be convened by the Minister before the grant of any special mining lease to consider the views of those persons whom the Minister believes will be affected by the grant of that special mining lease and shall be conducted by the Minister according to such procedures as will afford a fair hearing to all participants.
- (2) The Minister shall invite to a development forum such persons as he considers will fairly represent the views of -
 - (a) the applicant for the special mining lease; and
 - (b) the landholders of the land the subject of the application for the special mining lease and other tenements to which the applicant's proposals relate; and
 - (c) the National Government; and
 - (d) the provincial government, if any, in whose province the land the subject of the application for the special mining lease is situated.
- (3) Before the grant of any mining lease the Minister shall consult with the provincial government, if any, in whose province the mining lease will be located.

- **Section 5: Minerals the Property of the State**

- (1) All minerals existing on, in or below the surface of any land in Papua New Guinea, including any minerals contained in any water lying on any land in Papua New Guinea, are the property of the State.

- **Section 18: Circumstances under which the Minister may require mining development contract.**

Where the Minister considers, on reasonable grounds, that the size or distribution of a mineral deposit, the method of mining or treating it, the infrastructure required for it or financial or economic considerations make a mining development contract necessary, the Minister may require that the mining of that deposit takes place under a special mining lease and under the terms of a mining development contract.

▪ **Section 19: Effect of Mining Development Contract**

The mining development of a mineral deposit in respect of which a mining development contract has been entered into shall be undertaken in accordance With the provisions of the mining development contract, except that, to the extent of any conflict between the provisions of the mining development contract and the provisions of this Act, the provisions of this Act shall prevail.

▪ **Section 154: Principles of Compensation**

- (1) The holder of a tenement is liable to pay compensation, in respect of his entry or occupation of land the subject of the tenement for the purposes of exploration or mining or operations ancillary to mining, to the landholders of the land for all loss or damage suffered or foreseen to be suffered by them from the exploration or mining or ancillary operations.
- (2) Subject to Subsection (4), the compensation to which landholders are entitled includes compensation for -
 - (a) being deprived of the possession or use of the natural surface of the land;and
 - (b) damage to the natural surface of the land; and
 - (c) severance of land or any part thereof from other land held by the landholder; and
 - (d) any loss or restriction of a right of way¹ easement or other right; and
 - (e) the loss of, or damage to, improvements; and
 - (f) in the case of land under cultivation, loss of earnings; and
 - (g) disruption of agricultural activities on the land; and
 - (h) social disruption.

Appendix 3: Mining Sector Good Practice Performance Guidance

The table below provides an overview of the widely recognised forms of mining sector guidance pertaining to good social and environmental practice and performance.

Table 14: An Overview of Mining Sector Good Practice (Social and Environmental) Guidance.

Mining Sector Good Practice Guidance	Purpose/Description	Core Project Related Social and Environmental Performance Implications
<p>Equator Principles (2013):</p> <p>Related forms of good practice mining sector guidance:</p> <ul style="list-style-type: none"> - The UN Guiding Principles on Business and Human Rights. 	<p>The Equator Principles are “[a] financial industry benchmark for determining, assessing and managing environmental and social risk” that are intended to promote sustainable social and environmental performance (retrieved from http://www.equator-principles.com/on the 03/09/2016).</p> <p>The 10 Equator Principles connect with issues such as climate change, biodiversity, human rights and (indirectly) to community wellbeing. These Principles have been adopted by Equator Principles Financial Institutions (EPFIs), as a means to ensure that projects financed through EPFIs to be environmentally and socially</p>	<p>EPFIs commit to apply the Equator Principles through their social and environmental policies, and standards and procedures associated with high cost project financing, including (but not limited to) instances “...when Project finance with total project capital costs more than US\$10 million or more” (EPFIs, 2013, p6).</p> <p>Following a process of social and environmental project screening (Principle 1 – Review and Categorisation), projects that are anticipated to produce more than minimal project impacts must produce an Assessment Process to address the relevant social and environmental project risks. This process includes measures to minimise, mitigate and offset adverse impacts and requires the undertaking of an Environmental and Social Impact Assessment. In ‘limited high risk circumstances’, this assessment should include a project assessment in line with the human rights due diligence as detailed within the UN Guiding Principles on Business and Human Rights (Principle 2 – Environmental and Social Assessment) (EPFIs, 2013, p5-6).</p>
<ul style="list-style-type: none"> - The IFC Performance Standards on Environmental and Social Sustainability. - The World Bank 		<p>In such circumstances (where adverse impacts may be more than minimal) countries not considered to hold robust forms of environmental and social governance, or where legislation systems and institutional capacity necessary to protect their people and the natural environment are absent, the assessment process must include an evaluation against applicable IFC Performance Standards on Environmental and Social Sustainability, as well as the World Bank Group Environmental, Health and Safety Guidelines (EHS Guidelines) (Principle 3 - Applicable Environmental and Social Performance Standards) (EPFIs, 2013).</p> <p>Where such standards are not met, the client and the EPFI will agree on an action to plan to meet subsequent EPFI requirements (Principle 4 – Environmental and Social Management Systems and</p>

Mining Sector Good Practice Guidance	Purpose/Description	Core Project Related Social and Environmental Performance Implications
<p>Group Environmental, Health and Safety Guidelines.</p> <p>IFC Performance Standards on Social and Environmental Sustainability (2012):</p> <p>Related forms of good practice mining sector guidance:</p> <ul style="list-style-type: none"> - The World Bank Group Environmental, Health and Safety Guidelines. 	<p>responsible (http://www.equator-principles.com).</p> <p>The IFC Performance Standards provide guidance on how to identify risks and impacts at the project level, and are intended to help avoid, mitigate, and manage risks and impacts, including human rights impacts. These standards are applied "...to manage environmental and social risks and impacts so that development opportunities are enhanced" (2012a, p1).</p> <p>[Refer to Chapter 8 for a discussion on the provisions of Performance Standard 5 within the case study context.]</p>	<p>Equator Principles Action Plan). The clients will be required to demonstrate effective forms of stakeholder engagement with affected communities, and where relevant, with other stakeholders not directly affected by the project, but with an interest in it. Where a project may have potentially significant adverse effects, then they will be required to conduct consultation and incorporate the views of affected communities on issues that affect them into decision-making, "such as "...the sharing of benefits and opportunities, and implementation issues" (Principle 5 – Stakeholder Engagement) (EPFIs, 2013, p17). In addition to this, in order to ascertain project compliance, clients are required to undertake ongoing monitoring and reporting over the life of the loan (Principle 9 – independent Monitoring and Reporting).</p> <p>The IFC have established a set of eight social and environmental performance standards, which they require their clients to apply. These Performance Standards (2012) include:</p> <p>Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts.</p> <p>Performance Standard 2: Labor and Working Conditions.</p> <p>Performance Standard 3: Resource Efficiency and Pollution Prevention.</p> <p>Performance Standard 4: Community Health, Safety, and Security.</p> <p>Performance Standard 5: Land Acquisition and Involuntary Resettlement.</p> <p>Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.</p> <p>Performance Standard 7: Indigenous Peoples.</p> <p>Performance Standard 8: Cultural Heritage.</p> <p>Performance Standard 1 requires clients to conduct an acceptable social and environmental impact assessment, and to establish a related Environmental and Social Management System (ESMS). Clients are required to develop and implement a Stakeholder Engagement Plan that is scaled in accordance with project risks and impacts, and which is "...tailored to the characteristics and interests of the Affected Communities" (2012, p7). Where project impacts may be significantly adverse, then clients are required to engage in a more in-depth and iterative consultation process, which incorporates the exchange of views and information with affected communities, and the integration of those views within their decision-making. This is to be further supported by periodic</p>

Mining Sector Good Practice Guidance	Purpose/Description	Core Project Related Social and Environmental Performance Implications
		<p>reporting back to the community on Action Plan implementation, as well as on other community level issues and impacts (Performance Standard 1).</p> <p>Performance Standard 4 requires that the client take action to "...avoid or minimize transmission of communicable diseases that may be associated with the influx of temporary or permanent project labor" (2012a, p4).</p> <p>Performance Standard 5 specifies client requirements associated with projected related physical and/or economic displacement. This standard requires that:</p> <ul style="list-style-type: none"> - Clients consider "...feasible alternative project designs to avoid or minimize physical and/or economic displacement, while balancing environmental, social, and financial costs and benefits, paying particular attention to impacts on the poor and vulnerable" (2012a, p3). - "When displacement cannot be avoided, the client will offer displaced communities and persons compensation for loss of assets at full replacement cost and other assistance to help them improve or restore their standards of living or livelihoods..." (2012a, p3). - "Where livelihoods of displaced persons are land-based, or where land is collectively owned, the client will, where feasible, offer the displaced land-based compensation" (2012a, p3). - "In the case of physical displacement, the client will develop a Resettlement Action Plan that covers, at a minimum, the applicable requirements of this Performance Standard regardless of the number of people affected. This will include compensation at full replacement cost for land and other assets lost. The Plan will be designed to mitigate the negative impacts of displacement; identify development opportunities; develop a resettlement budget and schedule; and establish the entitlements of all categories of affected persons (including host communities)" (2012a, p5). - "In the case of projects involving economic displacement only, the client will develop a Livelihood Restoration Plan to compensate affected persons and/or communities and offer other assistance that meet the objectives of this Performance Standard. The Livelihood Restoration Plan will establish the entitlements of affected persons and communities and will ensure that these are provided in a transparent, consistent, and equitable manner" (2012a,p6).
Organisation for Economic Co-operation and	As of the 25 May 2011, the governments of OECD adhering countries make the joint	OECD adhering countries make a binding commitment to Guideline implementation pursuant to the Decision of the OECD Council on the OECD Guidelines for Multinational Enterprises (OECD, 2011). Beyond this OECD commitment, the Guidelines exist as non-binding standards which, when

Mining Sector Good Practice Guidance	Purpose/Description	Core Project Related Social and Environmental Performance Implications
<p>Development (OECD) Guidelines for Multinational Enterprise (2011):</p> <p>Related forms of good practice mining sector guidance:</p> <ul style="list-style-type: none"> - The UN Guiding Principles on Business and Human Rights. 	<p>recommendation that multinational enterprises operating in or from their territories, observe the OECD Guidelines for Multinational Enterprises. The Guidelines act as a type of Code of Conduct for multinational companies. “The common aim of the governments adhering to the <i>Guidelines</i> is to encourage the positive contributions that multinational enterprises can make to economic, environmental and social progress and to minimise the difficulties to which their various operations may give rise” (OECD, 2011, p15).</p>	<p>adopted, can support the promotion of responsible business conduct.</p> <p>The OECD Guidelines provide corporate good practice policy guidance and standards related to the environment, human rights, employment relations, and the combating of bribery, bribe solicitation and extortion (amongst other issues). The Guidelines endorse the United Nations Guiding Principles on Business and Human rights, reiterating the responsibility of business enterprises to respect human rights and to address adverse human rights impacts where they occur (OECD, 2011).</p> <p>The Guidelines also encourage sound corporate environmental management practices, advocating that multinational enterprises collect and evaluate environmental, and health and safety information, and consistently work towards improved environmental performance (OECD, 2011).</p>
<p>The UN Global Compact:</p>	<p>Launched in 2000, the United Nations Global Compact is a voluntary, principle based, corporate sustainability initiative, which calls for companies to align their business practices with ten Sustainability Principles, concerning to Human Rights, Labour, the Environment, and Anti-Corruption (www.unglobalcompact.org).</p>	<p>As the UN Global Compact is a voluntary initiative, there are no core mandated project implications.</p> <p>The UN Global Compact exists as a forum to promote sustainable business practices, with the ten principles forming “...the bedrock of ‘performance aspiration’ for participating companies” (United Nations Global Compact, 2010, p. 2).</p> <p>Stemming from the Universal Declaration of Human Rights, the International Labour Organization’s Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention Against Corruption, these Principles include:</p> <p>Human Rights –</p> <ol style="list-style-type: none"> 1. Businesses should support and respect the protection of internationally proclaimed human rights; and, 2. Make sure that they are not complicit in human rights abuses.

Mining Sector Good Practice Guidance	Purpose/Description	Core Project Related Social and Environmental Performance Implications
<p>The Global Reporting initiative (GRI):</p> <p>Related forms of good practice mining sector guidance:</p> <ul style="list-style-type: none"> - The UN Global Compact. - International Finance Co-operation 	<p>The GRI is an independent organisation founded in 1997. Legally, under Dutch law, this organisation is called the 'Stichting Global Reporting Initiative' (GRI, 2015, p8).</p> <p>Their overall aim of the GRI is to promote inclusive development and sustainable economic growth. Their mission being "...to empower decision makers everywhere through our sustainability standards and multi-stakeholder network, to take action towards a more</p>	<p>Labour –</p> <ol style="list-style-type: none"> 3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; 4. The elimination of all forms of forced and compulsory labour; 5. The effective abolition of child labour; and 6. The elimination of discrimination in respect of employment and occupation. <p>Environment –</p> <ol style="list-style-type: none"> 7. Businesses should support a precautionary approach to environmental challenges;8. Undertake initiatives to promote greater environmental responsibility; and 9. Encourage the development and diffusion of environmentally friendly technologies. <p>Anti-Corruption –</p> <ol style="list-style-type: none"> 10. Businesses should work against corruption in all its forms, including extortion and bribery (www.unglobalcompact.org).
<p>The Global Reporting initiative (GRI):</p> <p>Related forms of good practice mining sector guidance:</p> <ul style="list-style-type: none"> - The UN Global Compact. - International Finance Co-operation 	<p>The GRI is an independent organisation founded in 1997. Legally, under Dutch law, this organisation is called the 'Stichting Global Reporting Initiative' (GRI, 2015, p8).</p> <p>Their overall aim of the GRI is to promote inclusive development and sustainable economic growth. Their mission being "...to empower decision makers everywhere through our sustainability standards and multi-stakeholder network, to take action towards a more</p>	<p>As GRI is a voluntary initiative, there are no core mandated project implications.</p> <p>This organisation seeks businesses, governments and other organizations, to understand and communicate their impacts on sustainability issues including (but not limited to) climate change and human rights and corruption (www.globalreporting.org). The GRI uses a range of Standards, training and engagement programmes to encourage sustainable institutional practice.</p> <p>Currently the GRI G4 (sustainability) Guidelines, which are potentially applicable to all businesses, organisations and institutions, are being transitioned into a set of new GRI Sustainability Standards (www.globalreporting.org). Through the adoption and application of such standards GRI seeks organisations to report their most critical environmental and social impacts. While the GRI does not audit, verify or certify any subsequent form of GRI reporting, it is anticipated that institutional reporting in line with GRI standards will result in more sustainable institutional practices, and send a signal of good faith amongst respective institutional stakeholders (www.globalreporting.org).</p>

Mining Sector Good Practice Guidance	Purpose/Description	Core Project Related Social and Environmental Performance Implications
Guidance.	sustainable economy and world..." (GRI, 2015, p10).	
The World Bank Group Environmental Health and Safety (EHS) Guidelines: (Including General and Mining Industry specific guidelines).	The general World Bank EHS Guidelines is a technical reference document that is supported by mining industry specific EHS guidance. Together these guidelines specify recommendations, policies and standards to promote environmental (and occupational) health and safety (World Bank and IFC, 2007a and 2007b).	<p>The EHS Guidelines apply when members of the World Bank Group become involved in a project.</p> <p>Alongside the range of targeted technical environmental performance standards relative to water and waste water management, mining waste and tailings management, occupational health management, and biodiversity protection provisions, the World Bank's recommendations associated with the communicable disease prevention are particularly pertinent to social wellbeing. These provisions stipulate that "[m]ining operations should define and understand the potential effect of HIV / AIDS, and design an appropriate management response, including use of:</p> <ul style="list-style-type: none"> · Strategies to manage the impact of diseases through assessment, surveillance, actions plans, and monitoring; · A workplace programme to prevent new HIV infections and provide care and support for infected and affected employees; · Outreach activities within the community, sector and / or broader society. <p>Typical measures undertaken to reduce communicable disease incidence involve:</p> <ul style="list-style-type: none"> · Preventing illness among workers and their families and in local communities by: <ul style="list-style-type: none"> - Undertaking health awareness and education Initiatives - Training health workers in disease treatment - Providing treatment through standard case management in on-site or community health care facilities (e.g. immunization programmes)" (World Bank Group, 2007b, p. 23).
UN Principles for Responsible Investment (PRI): Related forms of good practice mining sector guidance:	The UN Principles for Responsible Investment exist as an instrument to promote corporate responsibility. The Principles were founded on the New York Stock Exchange in 2006, and their establishment is a result of a joint initiative	<p>As the UN PRI is a voluntary initiative, there are no core mandated project implications.</p> <p>Participation in the UN PRI requires a commitment from the CEO of a signatory organisation to the United Nations. In doing so, signatories make a public commitment to give effect to the Principles, when consistent with their organisational fiduciary responsibilities. Failure to comply with the Principles requires an explanation to the United Nations. The six Principles are as follows:</p> <p>Principle 1: We will incorporate ESG issues into investment analysis and decision-making</p>

Mining Sector Good Practice Guidance	Purpose/Description	Core Project Related Social and Environmental Performance Implications
<p>- The UN Global Compact.</p>	<p>between the UN Global Compact and the UN Environment Programme Finance Initiative. Their aim is to incorporate environmental, social and governance (ESG) issues into mainstream investment and decision-making practices made by the Financial Sector, and within associated with Institutional Investments (www.unpri.org).</p>	<p>processes.</p> <p>Principle 2: We will be active owners and incorporate ESG issues into our ownership policies and practices.</p> <p>Principle 3: We will seek appropriate disclosure on ESG issues by the entities in which we invest.</p> <p>Principle 4: We will promote acceptance and implementation of the Principles within the investment industry.</p> <p>Principle 5: We will work together to enhance our effectiveness in implementing the Principles.</p> <p>Principle 6: We will each report on our activities and progress towards implementing the Principles (www.unpri.org).</p>
<p>Extractive Industries Transparency Initiative (EITI):</p>	<p>The EITI is a non-profit Association that has developed an in-country multi-stakeholder initiative to promote transparency within the oil, gas and mining sector.</p> <p>“The objective of the EITI Association is to make the EITI Principles and the EITI requirements the internationally accepted standard for transparency in the oil, gas and mining sectors, recognising that strengthened transparency of natural resource revenues can reduce corruption, and the revenue from extractive industries can transform economies, reduce poverty, and raise the living standards of entire populations in resource-</p>	<p>Compliance with EITI provisions is mandatory if a Country voluntarily seeks to secure recognition as being EITI compliant.</p> <p>Directed at the Country level, the EITI process involves the establishment of a national multi-stakeholder group encompassing government, extractive industry and civil society representatives, whom determine how their national EITI process will work. Evolving from multi-stakeholder collaboration, the group oversees and works towards EITI implementation. This process involves reporting on and widely disseminating information that reconciles extractive sector related company and government payments. When implemented, it is anticipated that the EITI will enhance the transparency of the natural resource sector and extractive sector governance at the national level.</p> <p>Signatories to the EITI agree to apply the following Principles, recognising that the application of the Principles may better align extractive sector investments with the broader objectives of society:</p> <p>Principle 1: We share a belief that the prudent use of natural resource wealth should be an important engine for sustainable economic growth that contributes to sustainable development and poverty reduction, but if not managed properly, can create negative economic and social impacts.</p> <p>Principle 2: We affirm that management of natural resource wealth for the benefit of a country's citizens is in the domain of sovereign governments to be exercised in the interests of their national development.</p> <p>Principle 3: We recognise that the benefits of resource extraction occur as revenue streams over</p>

Mining Sector Good Practice Guidance	Purpose/Description	Core Project Related Social and Environmental Performance Implications
	rich countries" (EITI, 2016, p48).	<p>many years and can be highly price dependent.</p> <p>Principle 4: We recognise that a public understanding of government revenues and expenditure over time could help public debate and inform choice of appropriate and realistic options for sustainable development.</p> <p>Principle 5: We underline the importance of transparency by governments and companies in the extractive industries and the need to enhance public financial management and accountability.</p> <p>Principle 6: We recognise that achievement of greater transparency must be set in the context of respect for contracts and laws.</p> <p>Principle 7: We recognise the enhanced environment for domestic and foreign direct investment that financial transparency may bring.</p> <p>Principle 8: We believe in the principle and practice of accountability by government to all citizens for the stewardship of revenue streams and public expenditure.</p> <p>Principle 9: We are committed to encouraging high standards of transparency and accountability in public life, government operations and in business.</p> <p>Principle 10: We believe that a broadly consistent and workable approach to the disclosure of payments and revenues is required, which is simple to undertake and to use.</p> <p>Principle 11: We believe that payments' disclosure in a given country should involve all extractive industry companies operating in that country.</p> <p>Principle 12: In seeking solutions, we believe that all stakeholders have important and relevant contributions to make – including governments and their agencies, extractive industry companies, service companies, multilateral organisations, financial organisations, investors and non-governmental organisations (EITI, 2016, p10).</p>

Appendix 4: Research Participant Particulars

Table 15: Simberi Island Research Participant Particulars

Ref.	Research Participant Description	Ref.	Research Participant Description
S1	Lease area landowner, female, aged between 30-40 years.	S14	Lease area landowner, male, aged between 50 years+.
S2	Non-lease area landowner, female, aged between 40-50 years.	S15	Community Leader, lease area landowner, male, aged between 50 years+.
S3	Non-lease area landowner, female, aged between 50 years+.	S16	Community Leader, lease area landowner, male, aged between 50 years+.
S4	Lease area landowner, female, aged between 30-40 years.	S17	Non-lease area landowner, male, aged between 50 years+.
S5	Lease area landowner, female, aged between 40-50 years.	S18	Non-lease area landowner, male, aged between 50 years+.
S6	Non-lease area landowner, female, aged between 40-50 years.	S19	Lease area landowner, male, aged between 30-40 years.
S7	Women's Leader	S20	Lease area landowner, male, aged between 30-40 years.
S8	Local Level Government Representative (Employee or Elected).	S21	SGCL Manager.
S9	Lease area landowner, male, aged between 30-40 years.	S22	Community Health Representative
S10	Non-lease area landowner, male, aged between 30-40 years.	S23	School Representative
S11	Lease area landowner, male, aged between 50 years+.	S24	SMAA Representative
S12	Non-lease area landowner, male, aged between 50 years+.	S25	SMAA Representative
S13	Lease area landowner via marriage, male, aged between 50 years+.	S26	Lease area landowner, male, aged between 30-40 years.

Table 16: Lihir Island Research Participant Particulars

Ref.	Research Participant Description	Ref.	Research Participant Description
L1	Lease area landowner, female, aged 50 years+.	L23	Newcrest (LGL) Employee.
L2	Community Health Representative.	L24	Newcrest (LGL) Employee.
L3	Church Representative.	L25	Non-lease area landowner, female, 30-40 years.
L4	Women's Leader.	L26	Non-lease area landowner, female, 40 - 50 years.
L5	School Representative.	L27	Non-lease area landowners (group discussion 10+ people).
L6	Lease area landowners, female and male, aged between 40-50 years.	L28	Non-lease area landowner, male, 30-40 years.
L7	Lease area landowners, female and male, aged between 40-50 years.	L29	Non-lease area landowner, female, 20-30 years.
L8	Lease area landowners, female and male, aged between 20-30 years.	L30	Non-lease area landowners, two males and one female aged between 40-50 years.
L9	Lease area landowner representative.	L31	Non-lease area landowner, male, 30-40 years.
L10	Lease area landowner, female and male, aged between 30-40 years.	L32	Non-lease area landowner, female, 20-30 years.
L11	Non-lease area landowner, male, aged between 50-60 years.	L33	Non-lease area landowner, male, 16-20 years.
L12	Landowner Organisation Representative (Employee or Elected).	L34	Lease area landowner, female, aged between 20-30 years.
L13	Lihir Business Centre Representative.	L35	Lease area landowner, male, aged between 30-40 years.
L14	Local Level Government Representative (Employee or Elected).	L36	Non-lease area landowner, female, aged between 40-50 years.

Ref.	Research Participant Description	Ref.	Research Participant Description
L15	Local Level Government Representative (Employee or Elected).	L37	Non-lease area landowner, female, aged between 30-40 years.
L16	Local Level Government Representative (Employee or Elected).	L38	Non-Lihirian resident, aged between 30-40 years.
L17	Non-lease area landowner, male, aged between 30-40 years.	L39	School Representative
L18	Landowner Organisation Representative (Employee or Elected).	L40	Women's Leader.
L19	Non-lease area landowner, male, aged between 30-40 years.	L41	Community Leader, non-lease area landowner, male, aged between 50 years ⁺ .
L20	Non-lease area landowner, male, aged between 30-40 years.	L42	Women's Leader.
L21	Newcrest (LGL) Employee.	L43	Newcrest (LGL) Employee.
L22	Newcrest (LGL) Employee.	L44	Women's Leader.

Appendix 5: Nvivo Research Nodes

The Nvivo research nodes established to code the research data are illustrated below:

- **Wellbeing -**

Nodes			
Name	Sources	References	
Wellbeing		0	0
Human Security		28	57
Hopes		3	3
Gutpela Sindaun		21	27
Fears		6	7
Equitable Development		9	10
Economic aspects		3	3
Community Development		42	80

- **Human Rights -**

Human Rights		5	5
Right to work		11	16
Right to Remedy - access effective remedy		11	14
Right to own property		2	2
Right to life, liberty and security of person		4	4
Right to Health - physical and mental		18	23
Right to Freedom of Opinion		6	7
Right to form Trade Unions		1	1
Right to Education		17	22
Right to an adequate standard of living for wellbeing (Housing, Food, Wa		39	75
Complicity re. human rights		1	2

- **Inclusive Development¹²⁸ -**

Participatory Development		5	5
Trust Issues		15	21
Inclusion		2	2
Governance		28	43
Exclusion		18	24
Consultation Engagement		12	14

¹²⁸ For clarity, during the early stages of the research analysis process, I initially conceptualised 'inclusive development' as 'participatory development'. However, I determined 'inclusive development' to be the more appropriate terminology for the associated development ethic, because the concept of inclusive development incorporates the themes of consultation and engagement, but also extends to the consideration of issues of equity relating to governance, inclusion and exclusion.

Appendix 6: The Lihir Island Cacao Growing Project

The following articles (**Figure 10** and **Figure 11**) provide a background to the Cacao growing community development project on Lihir Island. These articles were published in Lihir Today (*Lihir Lame!*), which is an official publication of all stakeholders involved in the Lihir Gold Operation on Lihir Island, New Ireland Province, PNG.

Figure 10: Cocoa Development Underway on Lihir (2012)

Cocoa Development underway on Lihir

By Christopher Tabel

A joint stakeholder cocoa development project is currently underway in Ward 10 of the Nimamar Local Level Government thanks to the Namatanai Division of Primary Industry, Newcrest Lihir Gold Operation and Cocoa and Coconut Industry (CCI) Kavieng of New Ireland Province.

The main aim of the project is to promote economic growth in the local communities on Lihir Island by providing a sustainable source of income for each household in the communities apart from paid jobs.

"Having the people to participate in the development of their communities and wards and work towards achieving the goals of the government as stipulated in the Malagan Declaration and of the LSDP (Lihir Destiny) and that is Self Reliance and Financial Independence,"

The project will also rehabilitate the existing cocoa trees and re-establish cocoa to become one of the main sources of income.

"Rehabilitation meaning bringing those blocks back to production



People of Sale, watching a training video from CCI on cocoa farming. Pic by Christopher Tabel/MRPT

by weed control, pruning, pest & disease control and fertilizer applications," he said.

"To increase cocoa planting and increase productions of cocoa in ward 10 of the Nimamar LLG area and provide access to market through the setting up of processing facilities (Cocoa fermentries). This should improve the extension services to the rural communities," he said.

Mr. Romaso said the present situation is that production is very low with one cocoa fermentry in operation.

"Over the last 2 years, 10 farmers have planted 9,000 cocoa seedlings which will be in full production next year," he said.

Mr. Romaso added that other farmers have already been identified.

"Training of farmers and continuous inspections are the important part of the project. Training component of the project will be carried out by DPI and CCI Farmers, needs to be regularly visited in order for them to receive the technical advice that they need," he said.

Four nurseries will be established to cater for 35,000 seedlings.

"Nursery activities include selection of site, land clearing and construction of the nurseries, ordering of hybrid cocoa seeds, poly bags filling and management of these nurseries," he said.

Lihir Island was one of the cocoa producing areas of New Ireland before the operation of the Lihir Gold Mine.

Since 1984 cocoa has been encouraged in the whole of New Ireland which includes

Lihir through the Government subsidized Cocoa Subsidy Scheme.

This was an incentive for many farmers which led to the increase in cocoa plantings around the island. Cocoa is one of the main sources of income for the rural farmers. During 1990 - 1995, the annual production of dry cocoa beans for Lihir Island ranges from 16 to 20 tonnes per year.

The total value in kina is K 56,000.00 to K 70,000.00 per year.

This production is taken from the sales from the 10 cocoa fermentries that were in operation at that time.

In 1996 when the mine was under construction, the cocoa production started to drop until it reached zero in 1999.

Cocoa production stopped when all the 10 fermentries stopped operating.

In 2009 a cocoa fermentry was constructed at Pangoh and production of cocoa commenced with as low as 6 bags to 10 bags dry beans per year until now.

In monetary terms, that was K 3,000 to K 5,000.00 per year.

(Tabel, 2012).

Figure 11: Lihir First Cocoa Harvest Expected Midyear (2013).

Lihir first cocoa harvest expected midyear

By Anesthesia Angoro

Lihirians in Ward ten of the Nimamar Local Level Government are expecting to harvest their first cocoa produce midyear.

Since the joint initiative in 2012 between the Namatanai Division of Primary Industry (DPI), Nimamar Local Level Government, the Lihir Sustainable Development Plan (LSDP), Newcrest's Lihir Gold Operation (LGL) and Kavieng Cocoa and Coconut Industry, to revive the agriculture industry on Lihir, more than 25,000 seeds have been bought and planted in nurseries at ward 10. Trainings on cocoa husbandry were carried out, and trees which were planted before were pruned and maintained.

Community Planning and Development – Social Programs Coordinator Monica Kipong

revealed in an interview that their work in trying to secure a market for the crops has perked the interest of other farmers and they want to be part of this development.

Mrs. Kipong said they are expecting more seeds from Rabaul and the seedlings in the nursery are now ready for field planting.

"The interest from amongst the farmers are growing, so there is more demand coming in now then the number of seeds we have supplied," Monica said.

"So that means we will be asking for more seeds to come. The release of Cocoa Pod Borer Tolerance clones by Papua New Guinea Cocoa and Coconut Industry (PNGCCI) is also morale boosting. Farmers are also

interested in these new cocoa clones. The manager for CCI in Kavieng has indicated to assist in providing these clones for our budwood garden that we proposed to set up at Sale."

Monica also revealed that trainers will also be brought in to work with the farmers in block preparations (lining and holing), field planting and block management. Training on harvesting and processing will also be carried out.

A major incentive generating interest for cocoa farming is the market.

Last year, Mondelez International, makers of Kraft's cocoa based products visited Lihir and made known their intention to buy cocoa direct from Lihir. Negotiations to make these a reality are still ongoing.



An employee of PNG CCRI explains the different types of cocoa at the nursery to interested visitors. PNGCCRI supplies Lihir cocoa farmers with cocoa seedlings as well. Pic by Liz Tami/MRPT

(Angoro, 2013, p. 11).