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**An Exploration of the Impact of Oil Palm Development on Women in Pomio,
East New Britain Province, Papua New Guinea**

A thesis

Submitted in partial fulfilment
of the requirements for the
Degree of Master of
Commerce and Management
in International Rural
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Doreen Tunama

Lincoln University

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Abstract

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An Exploration of the Impact of Oil Palm Development on Women in Pomio, East New Britain Province, Papua New Guinea

by

Doreen Tunama

This thesis explores the impact of oil palm development on women in Pomio, East New Britain Province (ENBP) of Papua New Guinea (PNG). Pomio is the largest district in ENBP but the district is least developed due to the district's challenging topography. To introduce socio-economic development, forest resources such as timber have been exploited. For such socio-economic developments to eventuate, customary land is sub-leased to foreign developers and significant land-use change has resulted. After logging activities, oil palm was introduced as an agricultural crop to sustain the livelihoods of the indigenous people.

In ENBP, land is highly treasured. However, it is sometimes forgotten that it is especially precious to women. ENBP is a matrilineal society with women traditionally exercising significant responsibility over land, a major clan asset. They transfer inheritance rights over land to the next of kin within the clan and have traditionally played an important role in the decision-making about the distribution, use and management of land within the clan. However, with the modern emphasis on commercial agriculture, extractive and other commercial activities has often, this is changing. This research seeks to determine how women's lives have been affected by palm oil development. It seeks to answer the following questions - how do they participate in decision-making processes, what factors affect the degree of women's participation, what are the views of women on these land-use changes, and how do they

maintain their roles and status with the land-use changes? This study used qualitative research methods including in-depth interviews and observations with a range of women spokespersons, villager elders, village leaders, officers from government agencies and developers. Fieldwork took place at two different sites in Pomio district where two different developers and lease schemes are involved in establishing oil palm projects; with project site one under the plantation scheme while project site two under the nucleus-estate smallholder scheme.

The results show that the oil palm projects have both positive and negative outcomes for communities but the negatives outweigh the positives. The communities have lost their traditional livelihoods due to land clearance. Women are more affected than other members in the community. They are faced with all kinds of pressures as land is taken away from them, their livelihoods are diminished. As a result, women have turned to alternative activities to sustain themselves and their families. Their ability to support customary obligations is eroding, as are traditional values as the society transits from a subsistence economy into a cash economy as a result of land-use change. Despite the impact on their lives, women were found to have limited and a reducing ability to participate in decisions about the land-use that impacts on them.

This study concludes that to empower women's participation in decision-making processes in relation to customary land-use change, women need to be better educated to improve communication and language skills so that they are more informed about decisions being made at the community level, and so they can more effectively challenge the decisions that negatively impact on them, their communities and future generations.

Keywords: Pomio, women, participation, decision-making, oil palm, development projects, livelihoods, communities

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To God be the Glory

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Chapter 1: Introduction

1.1 Background

This research project stems from my personal experiences and perspectives. I was born and raised in Papua New Guinea and experienced both a typical rural village way of life and life in the city. But I mostly enjoyed the village life as it provided more freedom, freedom in the sense of abundance and the enjoyment of what was on my land such as being able to collect firewood, wild fruits, nuts, leafy vegetables, animals for protein and water to meet the daily needs. In the city, meeting all the basic needs involves the exchange of money for them. I went to school with all the other children in the village. It was a two hour walk every morning and another two hours back every afternoon. During the school term breaks, I stayed with my grandparents and helped with the daily chores in the village. The daily chores included going to the gardens (Figure 1), feeding the pigs, harvesting the coffee cherries, washing clothes in the river and attending community activities such as pride price (wedding) and funeral ceremonies. During the Christmas holidays, I stayed with my parents in the city, Port Moresby. On the occasions when my dad changed job locations, my mother and I with my other siblings would go back to live in the village. During this time, we enjoyed the simple village way of life. This carefree living made life easier compared to the city where people had to work every day to earn an income to support themselves.



Figure 1: Young girls walking into a typical garden in the Simoga village in Pomio. (Photo taken during field work, November 2013.)

After completion of my secondary studies, I was offered a place at the University of Natural Resources and Environment (formerly Vudal) to take up a Bachelor in Tropical Agriculture in ENBP. During the three years of study, I was a recipient of a New Zealand Women's Agriculture Scholarship. The Scholarship met all tuition and boarding fees annually. In order to be eligible for the scholarship, women have to meet and maintain certain grades. If the women fail to meet the grades then the scholarship is stopped. The men do not have to meet and maintain the grades. Along the way, I slowly began to realise and understand why I was a recipient of the New Zealand Scholarship. The problem is gender inequality, in a society where women are raised and seen as inferior to men.

Upon completion of my studies, I was fortunate to get a job with the extension arm of the University where I gained my bachelor's degree. This job meant that my dream of working with rural farmers had come true. I assisted in coordinating training programmes for farmers and

worked in partnership with key stakeholders engaged in the agriculture and research sectors. Most training activities were field based and hands on. In the selection of training participants, it was a requirement that 25 per cent of the group were to be women participants. This was one method of promoting gender equality in rural communities. Therefore, I was very supportive towards women's participation. In organising training deliveries I queried any group that did not have the required number of women participants and demanded more involvement of women in every training programme conducted.

Papuan society is made up of matrilineal and patrilineal descent groups. In matrilineal societies, family and property relations are traced down the female line; in patrilineal societies, family and property relations are traced down the male line. I originate from a patrilineal society from the Eastern Highlands of Papua New Guinea (PNG) and my views about matrilineal societies were different to my upbringing. I assumed that in the matrilineal society, women were highly respected for their social status as landowners in the community. However, during the course of my job, my opinions about the matrilineal society and the status of women seemed to be wrong. At first, I thought it was because I was from another culture and that I would learn about the matrilineal society slowly as time went by. Although I was involved in many trainings and fieldwork events, I noticed that even women from the matrilineal society did not fully participate. Most group discussions and decision-making exercises during training sessions were led by the men. Women sat and followed what the men did and said most of the time in both the theory and practical sessions. Consequently, I began to ask these questions:

Why are women not freely expressing their opinions during training sessions? How do these women express their matrilineal culture? How do women maintain their social relational status when men always take the leading roles? What really happens back in their communities when it comes to decision-making about land-use? What roles do women play in decision-making in community projects or developments? How has land-use change changed women's relationship

with their land and communities?

1.2 Introduction to the research

Land-use change is a feature of PNG economic development. (see Appendix A for all abbreviations and acronyms). Major land developments have been brought about by the natural resources industries such as mining, forestry and agriculture. The production and sale of cash crops have been an important source of income at both the household and national levels. At the national level, products from the renewable resource sectors of agriculture, forestry and fisheries contribute about a quarter of the total value of exports (Bourke & Harwood, 2009). At the household level, the sale of agricultural commodities has been the most significant source of income for rural people in PNG. These agricultural commodities include coffee, cocoa, copra and copra oil, rubber, tea and oil palm (oil palm is the whole plant, palm oil is the oil product after milling). Bourke and Harwood (2009) report that since 2000 oil palm has become PNG's most valuable agricultural export, taking over from coffee. As a result, palm oil production has expanded at a much greater rate than the other export trees such as cocoa, rubber, copra and copra oil, and tea. According to the International Trading Strategies Global (ITS) report (2011), oil palm has become one of the major contributors from the agricultural sector to the nation's revenue. The industry has been seen as one of the major sources of income for many rural households and has assisted rural communities out of poverty. Consequently, large areas of customary land have been taken up for further expansion of the oil palm industry to meet the increasing global demand for palm oil. This has had implications for the rural communities where land-use change has occurred.

The purpose of this study is to investigate the extent to which women in rural communities have participated in the decision-making processes on land-use change. It focuses on women in a matrilineal society, where women have traditional rights to land ownership through inheritance. Women traditionally have played an important role as decision-makers on how

land should be used. However, this may no longer be the case as PNG has transitioned from subsistence living to a cash economy. It appears that women have been excluded from economic development decisions since the Australian colonial administration time. During the 1950s, when the main system of land registration was proposed, women's rights were not acknowledged and no attempt was made to maintain the power balance in women having equal rights as citizen landowners (Brouwer, Harris & Tanaka, 1998). Since women are often regarded as primary producers and providers for their households they are affected the most by land-use changes, as women have special connections to their land. When it comes to the decision-making in relation to economic resources, such as forests and marine products from the sea, how do women protect and reclaim their rights and their connections to the land and the sea? Large areas of tropical forests have been destroyed through timber harvesting followed by the establishment of oil palm. These land-use changes are occurring on customary land. This is displacing the local people from their main livelihood support systems which they have depended upon for thousands of years. These developments take place on customary land which is a communal resource held collectively by all community members, including and especially women. Therefore this study aims to investigate how women have been affected as a result of the land developments like oil palm projects.

Although gender equality has been advocated in policies through government bodies and non-government organisations since the 1970's (Brouwer et al., 1998), gender equality appears to have only been paid lip service and is still a major issue faced by the women of PNG. This study investigates these gender inequality issues at a more community level, in villages where the foundations of society begin. This study tries to understand how women are recognised within their cultural settings and how they are adapting to land-use changes.

The study will look at an area in ENBP, which is a matrilineal society. It is one of the regions that has recently introduced oil palm production as an alternative cash crop on deforested

land. Oil palm is established with the aim of bringing socio-economic development into the very remote areas of this region.

This study adopts an ethnographic research approach and the results are triangulated. It is desired that the research findings will provide a better understanding of whether and to what extent women in matrilineal cultures participate in the decision-making processes with regard to the socio-economic projects. The results can be used by development partners to appreciate women's roles and views, and to enhance gender equality at all levels.

1.3 Aims and objectives

PNG's constitution gives guidance as to gender equality. Its second National Goal declares equality and participation for all. It states that "all citizens are to have an equal opportunity to participate in, and benefit from, the development of our country". Point number five emphasises "equal participation by women citizens in all political, economic, social and religious activities" National (Constitution of PNG, n.d; Be'Soer, 2012). Moreover, the third Millennium Development Goal states that to achieve gender equality "it is necessary to place women's empowerment in the national development plans" (United Nations Development Program [UNDP] 2012). ENBP being a traditional matrilineal region, is further reason why women should have an important role to play in the establishment of large-scale agro-industries like oil palm including whether oil palm should be established at all.

This study aims to explore how women's participation roles and status in community development projects in the Pomio district, one region in ENBP, will be affected. These projects are brought about for the socio-economic benefit of the people in the communities, the region and the country as a whole.

Research questions:

- 1) How do women participate in decisions about land-use changes?
- 2) What are women's views on the land-use changes?
- 3) What types of arrangements are available for women to participate in these projects?
- 4) Which factors affect the degree of women's participation?
- 5) What are the roles and status of women in land-use changes in their communities?
- 6) How will women's lives be affected?

1.4 Structure of the Thesis

This thesis entitled "*An Exploration of the impact of Oil Palm Development on Women in Pomio, East New Britain Province, Papua New Guinea*", comprises seven chapters:

Chapter One provides the research background and outlines the author's perspective and the initial research aims and objectives. The land ownership system, the land tenure system, and the current land registration system are discussed, as is how land-use change has evolved over time.

Chapter Two introduces the research context, ENBP and the Pomio District. This includes the geography, the population, government administration, the income and access to services, the status of women, and the development partners in the area.

Chapter Three is a literature review of studies on women's roles in agriculture and in the oil palm industry and how women's roles in the industry have been recognised and compensated. This leads to the research gap and the refined research questions.

Chapter Four explains the research methodology, including the qualitative research interviews, the data analysis and the constraints on the study.

Chapter Five examines the results from the two case study sites. It looks at the ways women participate in decision-making on land-use changes, women's perspectives on land-use changes, and the avenues available for women's participation in decision-making processes. The factors hindering women's degree of decision-making participation, women's roles and women's status in the development processes and the impact on women's lives, are identified.

Chapter Six provides a discussion on how women's participation in decision-making on oil palm developments is changing. The barriers women face in the decision-making surrounding development projects is discussed and recommendations for involving women in the decision-making processes are considered.

Chapter Seven concludes the research with the main findings. Recommendations and suggestions for further research are made and the limitations of the research are considered.

Chapter 2: Research Context

2.1 Introduction

This chapter introduces a general overview of PNG and covers the geography, the agriculture and the livelihoods of the people. It also includes land ownership, land tenure and registration, as well as land-use changes, and a discussion of the area where the research was conducted.

2.2 Overview

The country of Papua New Guinea is officially known as the Independent State of Papua New Guinea. It lies in the south-western Pacific Ocean. It is the larger eastern half of the island of New Guinea. The western portion of the island is part of the Indonesian Provinces of Papua and West Papua. PNG has numerous offshore islands called New Guinea (Hanson, Allen, Bourke & McCarthy, 2001). The country has a total land mass of 462,840 km² with a very low population density (World Factbook, 2013). In 2000, the area of land used for agriculture was 117,858 km², and the population density on the land used for agriculture was 44 people per km² (Bourke & Harwood, 2009). It is the most culturally diverse country in the world. The indigenous population is one of the most heterogeneous populations in the world and has several thousand separate communities, most with only a few hundred people, divided by language, customs and traditions. It is estimated that more than 700 different cultural groups exist in the country, and that there are more than 800 languages. The majority of these languages are spoken in the traditional rural societies. PNG has a current population of 6.7 million people and has a population growth of 1.94% annually. Geographically, the country is diverse with extreme rugged terrain with dense rainforest in the highland regions compared to the large wetlands on the lowlands and coastal regions. This diversity has made infrastructural development very difficult, leaving large rural areas remote and undeveloped. Linkage to basic services such as electricity, education, health, communication, and road access to major towns for these rural places, is limited (Hanson et

al., 2001). Figure 2 illustrates the geographical nature of PNG.



Figure 2: The size and nature of Papua New Guinea geographically. Port Moresby is located in the National Capital District.

2.3 Agriculture and Livelihoods

According to the Papua New Guinea National Research Institute (PNGNRI) report on the district and the regional profiles, more than 80 percent of the population live in rural areas. Some of these areas are extremely remote (PNGNRI, 2010). Nearly three quarters of people's livelihoods are supported by subsistence based farming. Agriculture, both for subsistence and cash crops, provides a livelihood for 85 per cent of the total population and continues to provide some 30 per cent of the Gross Domestic Product (GDP). It is the most important activity carried out by the vast majority of Papua New Guineans. Agricultural production includes coffee, cocoa, palm oil, coconut oil or copra, rubber, and tea, providing incomes to about 80 per cent of the population (Hanson et al., 2001). For most people, agriculture fills their lives, physically, culturally, economically, socially and nutritionally.

The country is richly endowed with natural resources from minerals to renewable resources such as forests and the sea still holds a large portion of the world's major remaining tuna stocks. Mineral deposits, including gold, oil and copper account for 72 percent of export earnings. Bourke and Harwood (2009) state that most rural Papua New Guineans earn cash income from agriculture as well as closely associated activities such as selling firewood, fish and animals. Sales of fresh food provide a cash income to more households than any other activity. More than 90 percent of rural villagers live in households where income is derived from the sale of fresh food. All these activities happen on customary land, where the people have traditional rights to use and make decisions on how the land should be used. People's livelihoods are sustained through this manner. These things happen on customary land.

2.4 The Sustainable Livelihood Framework

Developing sustainable livelihoods is critical to community life. Many developing countries use the Sustainable Livelihood Framework as the basis for rural development research and practice. The most common Livelihood Framework used is the one developed by the British Department for International Development [DFID] (2000), as shown in Figure 3. It is a tool for improving our understanding of livelihoods. The term *livelihood* is used in many different ways at different hierarchical levels. Chambers and Conway (1992) describe livelihood as the household, and further that livelihood usually means the human group which shares the same hearth for cooking - which in its simplest sense is a means of gaining a living. Further, livelihood is a means of securing a living that is complex. Figure 3 visually illustrates how a livelihood framework works.

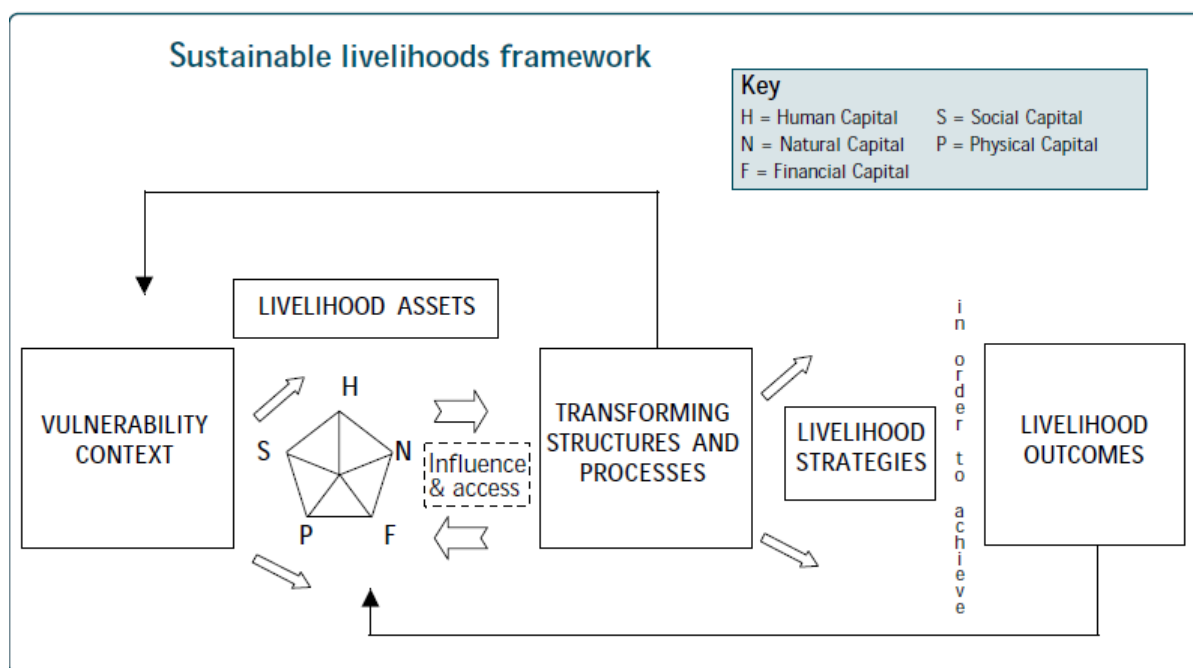


Figure 3: The Sustainable Livelihood Framework (Source: DFID, 2000).

The concept of sustainable livelihoods was put forward in the report of an Advisory Panel of the World Commission on Environment and Development (WCED) in 1987, when it called for new analyses that proposed sustainable livelihood security as an integrating concept.

Chambers and Conway (1992), modified the WCED panel definition and proposed the following working definition of sustainable livelihoods:

“a livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living: a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long term” (Chambers & Conway, 1992, p.6).

The DFID through its operation on the sustainable livelihoods concept and approach gave a modified definition of sustainable livelihoods as follows:

“A livelihood comprises the capabilities, assets (including both material and social

resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resource base” (DFID fact sheets, 2002).

The central elements of the Sustainable Livelihood Framework in Figure 3 are livelihood assets, livelihood strategies and transforming structures and processes. Applying the Sustainable Livelihood framework to this study, it appears that the core of local people’s livelihoods, forest land, has been and is being given away for agricultural activities. Forest land is one of the main components that provides the material and the social means for the locals. Forest land as a natural capital livelihood asset, will have a great effect on the other livelihood assets such as human, social, physical and financial, since livelihood is an integrating concept.

2.5 Landownership in Papua New Guinea

PNG legislation recognises customary land tenure. Up to 97% of the total land area is titled under customary land. Just 3% of the land is alienated under the Land Registration Act (1996).

The State is the only non-citizen body eligible under law to enter into land dealings over customary land. Historically, alienated land was acquired from customary landowners by the State and the former colonial, Australian Administration. Alienated land is held privately for 99 years as a State lease or is held by the State. Under the Customary land title law, the traditional lands of the indigenous people have some legal basis to inalienable tenure (Weiner & Glaskin, 2007; Australian Agency for International Development (AusAid), 2008; Filer, 2006). Like most Pacific Island nations that still operate under land legislation rules from their colonial period, PNG maintains this legal basis to inalienable tenure. In PNG, the land registration laws are a system of legislation that was introduced by the Australian

Administration in the mid-1960s. Filer (2011) also supports the idea that the legal basis to inalienable tenure is still the same as it was when PNG gained its Independence from Australian colonial rule in 1975.

Land is communally owned by the clans who make decisions on how the land will be used. This customary tenure consists of a bundle of rights to occupy, use, develop, inherit, pass on, defend and exclude others (Hunt, 2001). People's livelihoods depend on the land as their kinship ties determine all manner of relationships between people which cover support, morality, networks and landownership. Hunt (2001), gives an illustration on the overall perception of land tenure in the Pacific (Figure 4) comparing Pacific land tenure to the western idea of land tenure. The traditional lands owned under customary title by the indigenous owners are passed down from generation to generation through the male or female lineage. This varies from one culture to another in the different complex societies of PNG. The different societies practice either matrilineal or patrilineal inheritance or sometimes both. Most societies of PNG are patrilineal but one third are matrilineal. Women have different roles and responsibilities in protecting, securing and maintaining land for their children, between these two types of societies. The decision-making processes and the status of women also differ between these two types of societies as mentioned by Koian (2010). In the matrilineal societies (mainly New Guinea Islands and Milne Bay Province), women own the land and are responsible for land decisions in their clans. For instance, in some of the districts of New Ireland Province, men have the sole authority over resources, even though land ownership is held by women. On the other hand, in the patrilineal societies, women do not own the land but their contribution in helping to keep the land within their clan is acknowledged, firstly by bearing a son who will help protect the land and secondly and most importantly, by working on the land. The women plant gardens, fish in the rivers, gather fruits, nuts and wild bird eggs, as well as gather medicinal plants from the wild. This practice has been and is very important and valued by the

people within their societies in the traditional economy, where cash did not and does not mean much to them (Koian, 2010). The functioning of the customary societies is explained by Hunt (2001) (*Figure 4*).

Box 1.1 Customary land tenure in the Pacific

A community of several clans would claim an area of land as its territory. Within that territory, each clan would be acknowledged as the controller or owner of particular sections. The whole area was not the common property of the community for more intensive uses, despite the fact that, by custom, all residents might be free to gather forest products from anywhere in the uncultivated parts of the territory. Although some limited rights might have approached commonality within this forest or uncultivated land, individual trees or products would be recognised as the property of individuals and control of hunting and gathering would rest with particular people or sub groups.

Within the land of one clan, members would not all have equal rights to clear and cultivate any part because specific individuals, nuclear, or extended families would hold residual and relatively exclusive rights to occupy, stemming from the last period of cultivation of the particular piece. The land of a house site might be specifically under the control of a particular nuclear or extended family.

A superficial examination of this type of system, influenced by ideas stemming from nineteenth century sociology, might well conclude that as all members appeared to be able to hunt, gather, or collect water from any area or site within the community's broader territory, and that people cultivated gardens scattered throughout the territory, that the land was common property.

Figure 4: Customary land tenure in the Pacific (Source: Hunt, 2001).

However, the roles of women in the traditional economy are changing because of the increasing trend for them to participate in educational opportunities, improving women's literacy rates and the increasing economic development of women; resulting in improved economic standing, social status and opportunities (ref needed). Pressure to provide more opportunities is being applied at the political level. In 2007, the sole woman parliamentarian asked for preferential treatment for women - that 22 parliamentary seats be created for women, one woman for each of the 22 provinces. The male parliamentarians did not like the idea and said that women would have to enter parliament through the normal parliamentary process. As at 2012, PNG has three women members of parliament representing three different Provinces. There is also an increase in the number of women graduating from university every year and consequently occupying highly paid positions, as well as working in male dominated jobs which were once seen as being fit only for men

(Dickson, 2006). Such advancement is happening in the major cities and towns but however, the rural areas are different, and the bulk of the population are living in the rural areas.

2.6 Issues related to Land Tenure and Registration

Land registration in PNG goes back to the early 1900s, when the missionaries and the British and German administrators ruled (Weiner & Glaskin, 2007). For example, a piece of land that was regarded as waste land by the locals was given away to foreigners or the State. Weiner and Glaskin (2007) state that sometimes an agreement was reached between the village elders or the headmen and the British and German administrators for the use of land within a community to establish buildings or churches. Many of these agreements were verbal without any proper written records. As a result this led in the 1950s to the registration of indigenous customary land which was about securing “land rights” for the indigenous people, creating a managerial and legal capacity for them through various processes of incorporation (Fingleton, 2000). However, these measures did not secure land rights for the indigenous people, who were powerless against the authorities. As mentioned in Section 2.5, most of the main land laws used today were introduced during the colonial era of Australian Administration.

Since then there have been a series of amendments to the Land Management Acts of the 1900s. These amendments were supposed to help meet the economic development demands of the nation but were mainly just political interference from the government of the day as illustrated in Table 1.

Table 1: Summary of major amendments of Papua New Guinea Land Acts of the 1900s.

Year	Major Land Act Amendments
1900s	Britain and Germany administered the territories of Papua and New Guinea respectively
1901	Australia took over administration of Papua from Britain
1918	Australia was mandated by the League of Nations to take over the New Guinea territory from Germany
1943	The Territories of Papua and New Guinea were brought under one Administration – Australia
1952	The Native Land Registration Ordinance was proposed, although no actual native lands register followed the proposal
1962	A New vision of customary land was announced: the passage of the new Land Titles Commission Ordinance
1963	The Land Tenure Conversion Act The Lease – lease-back scheme was introduced
1970s	The PNG government inquiries carried out on the issue of land rights for Commonwealth territories under each colonial administration Land policy development and legislation reforms
1973	A Commission of Inquiry into land matters
1974	Papua New Guinea Land Groups Incorporation Act enacted in Parliament - (Incorporated Land Groups - ILGs) Land Acquisition (Development Purposes) Act – The redistribution of land under the Plantation Acquisition Scheme to the original customary owners, for economic development purposes
1975	Papua New Guinea gained Independence from Australia
1992	The New Forestry Act of 1991 came into operation – the timber rights of customary land could only be acquired if the title to land was vested in the land groups of the ILGs
1996	The Land Management Act 1963, commonly known as the lease – lease- back scheme was changed to the Special Agriculture and Business Leases
2007	Section 90B of the Forestry Act was amended to increase the power of the Department of Agriculture and Livestock and reduce the power of the PNG Forestry Authority, to allow for forest clearance and agricultural development The Special Agriculture and Business Lease (SABL) was introduced

Under the Native Land Registration Ordinance of 1952, no native land titles were actually registered until 1962. Registration came about when a new vision for customary land was announced, with the passage of the Land Titles Commission Ordinance, which was also known as the *Land Registration Communally Owned Land Ordinance* 1962 (Filer, 2006). This Ordinance provided the registration of customary land in declared areas as being either

individually or communally owned. In 1963, the Land Tenure Conversion Act was introduced, another major land law introduced by the Australian Administration. This was legislation that clearly provided under its provisions for the individual freehold titles of customary land, which meant that thereafter, the land would be free from all customary interests, and customary authority over it was extinguished (Fingleton, 2007). Under the Land Tenure Conversion Act of 1963, customary landowners were first incorporated as a legal entity or Land Group before the State could issue a lease, under the lease – lease-back system. The Land Group then sub-leased the land to a private developer who paid rent and royalties to the landowners directly, in accordance with what was in the agreement between the parties (Oliver, 2002). Fingleton (2007), argues that the processes under this Act were unduly complex and slow and the operation of the 1962 law was suspended in 1970, and was later repealed.

In the early 1970s, the indigenous political leaders became suspicious of Australian schemes for the systematic registration of customary land titles. This systematic registration posed a threat to the customary values and institutions of the indigenous people. This led to a Commission of Inquiry into Land Matters in 1973. As a result, the Parliament of Australia passed the Papua New Guinea Land Groups Incorporation Act (ILGA) in 1974 (Weiner & Glaskin, 2007). The PNG ILGA did not recognise 'Patrilineality' nor 'Matrilineality' as the introductory statement states that the purpose of the law is "to recognise the corporate (pertaining to a united group) nature of customary groups that allows them to hold, manage and deal with land in their customary names" (Filer, 2012). The Incorporated Land Group was a legal entity, empowered by legislation passed in 1974, to give legal and formal recognition, protection and powers to customary land-owning groups in PNG (Fingleton, 2007). Filer (2011) states that in 1996, the Land Management Act of 1963, which contained specific provisions enabling the State to lease customary land from the customary landowners and

then to lease it back to other persons or organizations for periods of up to 99 years, was changed to the Special Agricultural and Business leases (SABL). The scheme was developed as a stop-gap measure to compensate for the absence of customary land titles. From 1979 to 2002, land titles of some kind were seen as an essential precondition for commercial agricultural development. The National Research Institute (PNGNRI) media report (2011) further elaborates that the Land Management Act of 1996 continued to support the practice where traditional landowners could lease their traditional land to the state in return for the state granting a Special Agriculture and Business Lease (SABL) over their land. This system was designed to enable traditional landowner's access to credit for agricultural ventures on their land. According to Filer (2012), from 2003 to 2010, about ten per cent of PNG's total land area was transferred to private organizations through this system under the new Special Agricultural and Business Leases system. During this process, in excess of 4.2 million hectares of total land area was leased. Thus in Sustainable Livelihood Framework terms, the natural capital of many PNG families was undermined by the tenure changes brought about by such changes as the introduction of the SABL system.

2.7 Land Use Changes

From the late 1950s to the mid-1960s, PNG like other developing countries adopted land settlement programmes to promote agricultural and economic development using the lease – lease-back system. The Australian administration at the time thought that by taking people out of their sociocultural context of village life and settling them on individual landholdings as part of various settlement schemes, the problems of traditional communal land tenure would be overcome. It was assumed that communal land tenure was constraining agricultural development and that individual holdings of land would solve this problem (Koczberski, Curry & Bue, 2012). The scheme was also seen as a major drive to increase agricultural export production and improve rural incomes. This would integrate Papua New Guineans into cash

crop production, relieve population pressure in some rural areas and shift production into “unused” or under-exploited land (Koczberski, Curry & Gibson, 2001). These land settlement schemes started with the commercialisation of oil palm plantings in the late 1960s in Oro and West New Britain Provinces. Moreover, it was also considered that by establishing individualised holdings through land settlement schemes, it would enable Papua New Guineans to experience the benefits of individualised land tenure. It was hoped to replace the customary land tenure system, as well as slowly reduce the rural people’s dependence on subsistence production and become market driven producers (Koczberski et al., 2012). From 1979 to 2002, PNG lost more than 5 million hectares of forest land as a result of large scale agro-industries (Shearman et al., 2009; Butler, 2009; Filer, 2012). Among these agro-industries, oil palm development was the main industry that used up large areas of land compared to other cash crops such as cocoa, coconut (copra), coffee, rubber and tea. Large areas of customary forest land were converted into large scale plantations and smallholder production schemes for the oil palm industry.

2.8 Legal framework for forestry product exploitation

Forestry exploitation preceded oil palm developments and the issues it raised offers some precedent for the issues faced in oil palm development. During the colonial period, forest land was exploited for timber harvesting. Practically all logging companies in the colonial period were Australian-owned or Australian-based (Holzknecht & Golman, 2009). At that time, the colonial policy of timber extraction from customary owned ‘native’ forests evolved over time through a process known as “timber rights purchase” (TRP) agreements. This was a way of purchasing so-called timber rights from traditional owners of forests although not alienating the land from the locals. There are three main elements used in forest exploitation in PNG (Holzknecht & Golman, 2009, pp 188-189).

1. *Timber Rights Purchase (TRP)*

The TRP arrangement was intended for large scale exploitation and is managed by the Department of Forestry. Under this arrangement the state acquires timber rights where customary owners are willing to sell. The state then issues a permit or licence to remove the timber on agreed terms and conditions. This includes the payment of royalties, where a certain percentage is paid to customary owners.

2. *Timber Authority (TA)*

Timber authorities are issued on the payment of a fee. This enables any person to purchase a very limited quantity of timber directly from a customary owner. However, without a TA no one other than a Papua New Guinean can purchase forest produce from a customary owner.

3. *Forestry (Private Dealing) Ordinance, 1971 (became an act in 1974)*

This Act enabled customary owners to dispose of their timber to whomever they wished, on these conditions:

- a) interests of owners are protected,
- b) there should be no conflict with the national interest,
- c) prospects for economic development are considered,
- d) the district administrator gives his approval on the arrangement.

Forestry policy at the time of independence (1975) was based on a 1973 National Forestry Policy document that clearly identified the traditional ownership of forests and the need to link forestry development to national needs. After independence there was little immediate change in forestry policy until 1990, when a new National Forest Policy was approved.

According to Holzknecht and Golman (2009), in 1991 a new *Forestry Act* was passed and gazetted in 1992 and the *Forestry (Private Dealings) Act* was removed from the statute books.

However, as in the old Act, the state reserved to itself the monopoly right to enter into a Forest Management Agreement (FMA) with customary forest owners. Once a FMA is agreed

upon, the National Forestry Board then selects a developer to harvest the forest. The logger can be either a local or an international company. The FMA process involves several steps as shown in Figure 5 but the three most disputed requirements of the steps are “development option study”, the “formation of land groups”, and “corporate formation”.

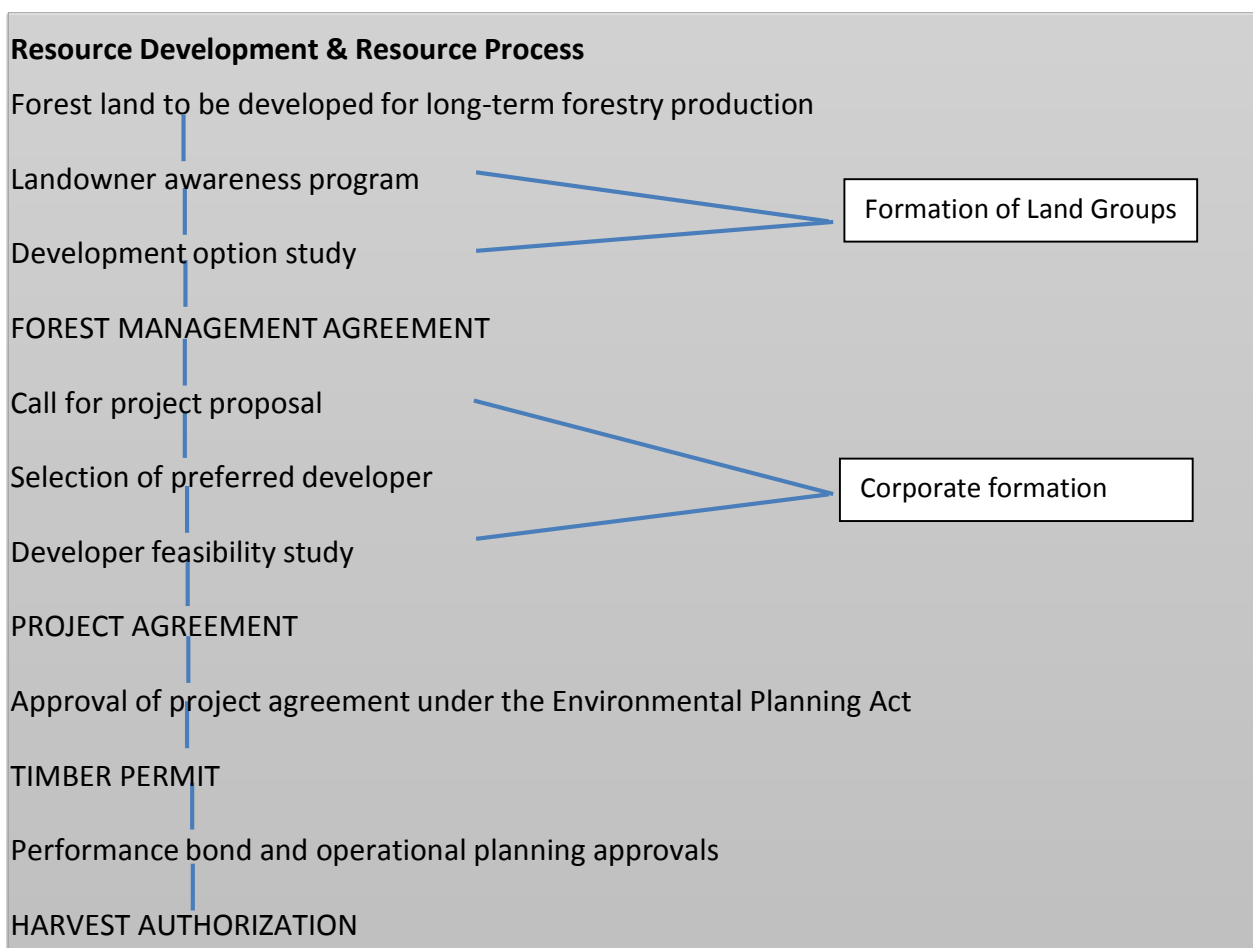


Figure 5: Redrawn from *Making Policies and Implementation: Studies from P.N.G* (Source: Holzkecht & Golman, 2009)

2.9 Area of Research: Pomio District, East New Britain Province

Figure 6 shows the study area of the Pomio region in East New Britain Province (ENBP). ENBP is located in the New Guinea Islands Region of PNG and is one of the provinces comprising the Island of New Britain.

Local Level Government (L L G) Names overlaying the districts in ENBP

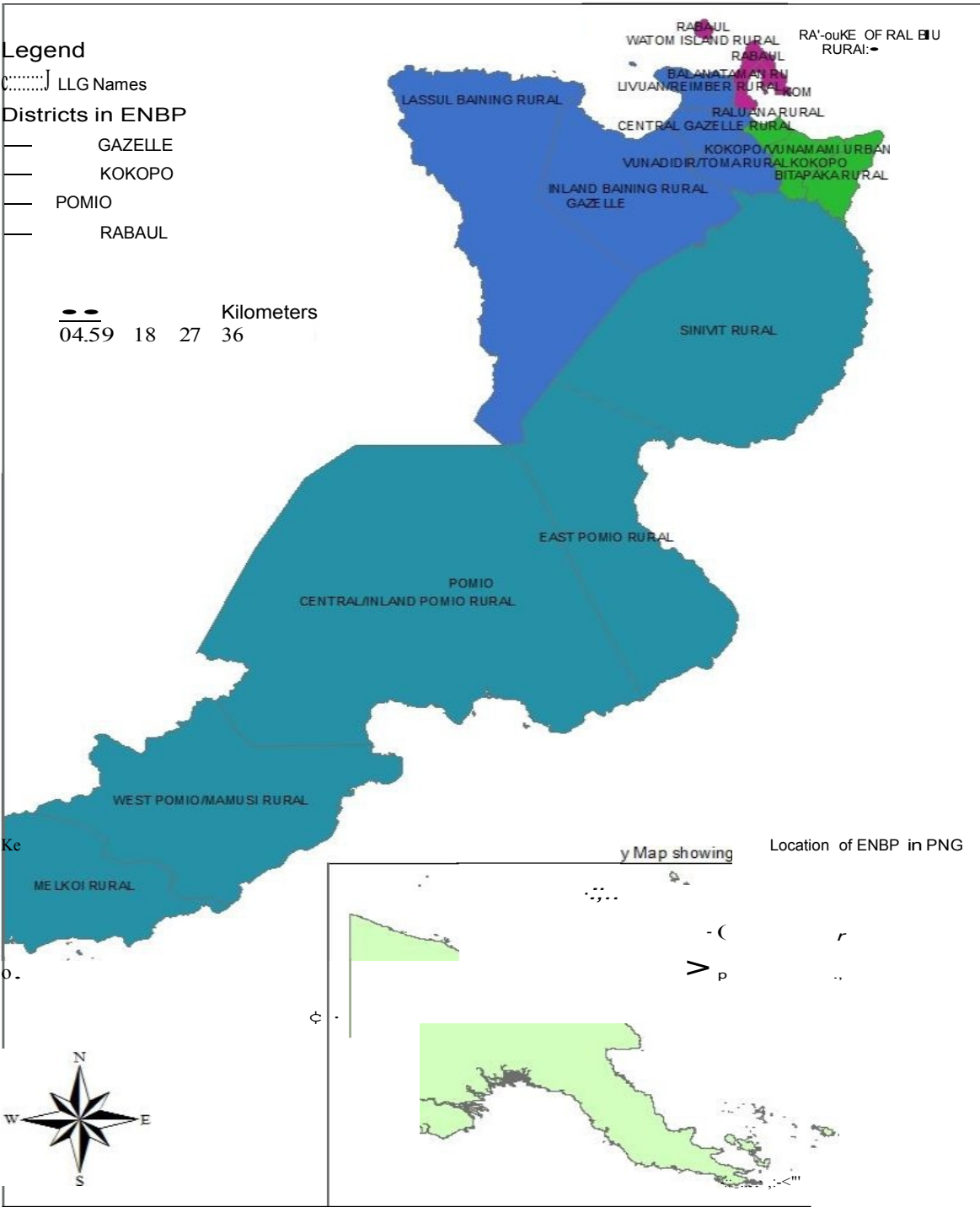


Figure 6: Map of East New Britain Province and its four Districts (Source: Division of Lands & Physical Planning – ENBP 2013).

There are four districts within ENBP: Gazelle, Kokopo, Pomio and Rabaul. Each district contains a number of Local Level Governments (LLGs). These are in turn divided into wards, where councillors are elected in each ward to become members of their LLG. The estimated rural population of ENBP in 2002 was 255,000, which is 6 per cent of the national rural population. The provincial rural population growth is very high at 4.2 per cent annually (Hanson et al., 2001). According to the 2011 preliminary census update, it indicates an estimated increase of 270,000 people living on the Island (Heyden, 1996). Gazelle Peninsula is the most populated district. This is where the dominant ethnic group Tolai live, and who have high living standards. Most of the Gazelle Peninsula villages have a sealed network of roads. On the other hand, there are also significant groups of people living in the most remote areas of the province. These are the Bainings and those in the Pomio district. In these regions, villagers can be several days walk to the nearest roads and services.

The region is under a matrilineal system where customary ownership of land is held by women. Customary land is inherited through the female descendants. Transfer of land user rights is normally accepted through customary feasts and payment of traditional shell money known as *tabu* into the matrilineal land-holding clan.

2.9.1 Pomio District

Pomio is by far the largest district, but has the smallest and most scattered distribution of population. The area is fairly isolated in terms of geography. With its still comparatively large forest cover and the rugged Nakanai Mountains, the district is difficult to travel over. The Pomio District stretches along the coastal plains in the south east of ENBP. In the north, it covers the eastern side of the Baining Mountains. Moving south, the Pomio district covers the coastal plains, the inland limestone plateaux and valleys, the Nakanai Mountains and the volcanic peaks of Mt. Ulawun as well as Mt. Bamus. It covers a large land area compared to the other three districts of ENBP of 11,000km² (Hanson et al., 2001). According to the PNG

National Research Institute (PNGNRI) report (2010), in the year 2000 the estimated rural population was around 50,000 but the preliminary census of 2011 shows it has already increased to 62,000 (Heyden, 1996).

2.9.2 Local Level Government Administration

As Figure 7 illustrates, there is a developed administration system with five municipalities under the Pomio District Administration. These are Melkoi Rural, West Pomio Mamusi Rural, Central Inland Pomio Rural, East Pomio Rural, and Sinivit Rural. There are a total of 119 wards in the five municipalities with each ward having a representative to represent the people in the local level government assembly (PNGNRI, 2010). Compared to the other districts of ENBP, Pomio has the highest number of municipalities while the Gazelle, Kokopo and Rabual districts have between two and three local level governments. The ward councillors are elected by the villagers for five years to act as intermediaries between the PNG State and the local communities. The ward councillors work with the local level government officers to plan, implement and manage projects including any form of development in their respective communities (Tammisto, 2010).

Legend

LLGs in ENBP

- C=:J B'U.ANATAM.AN RURAL
- C) EITAPAKA RURAL
- C=:J CENTRAL GAZB..LE RURAL
- C=:J CENTRAIINLAND POMIO RURAL
- CJ DUKE OF YORK RURAL
- CJ EAST POMIO RURAL
- CJ INLAND BAJNING RURAL C=:J
- KOKOPONUNAMAMIURBIW C=:J
- KOMBU RURAL
- CJ LASSUL BAINING RURAL
- CJ UWANIREIMBER RURAL
- C=:J MELKOIRURAL
- CJ RABAU URBAN C::::J
- RALUANARURAL
- D SINIVIT RURAL
- C=:J WNADIDIRITOMARURAL
- D MTOM ISLAND RURAL
- CJ WEST POMIO/MAMUSIRU

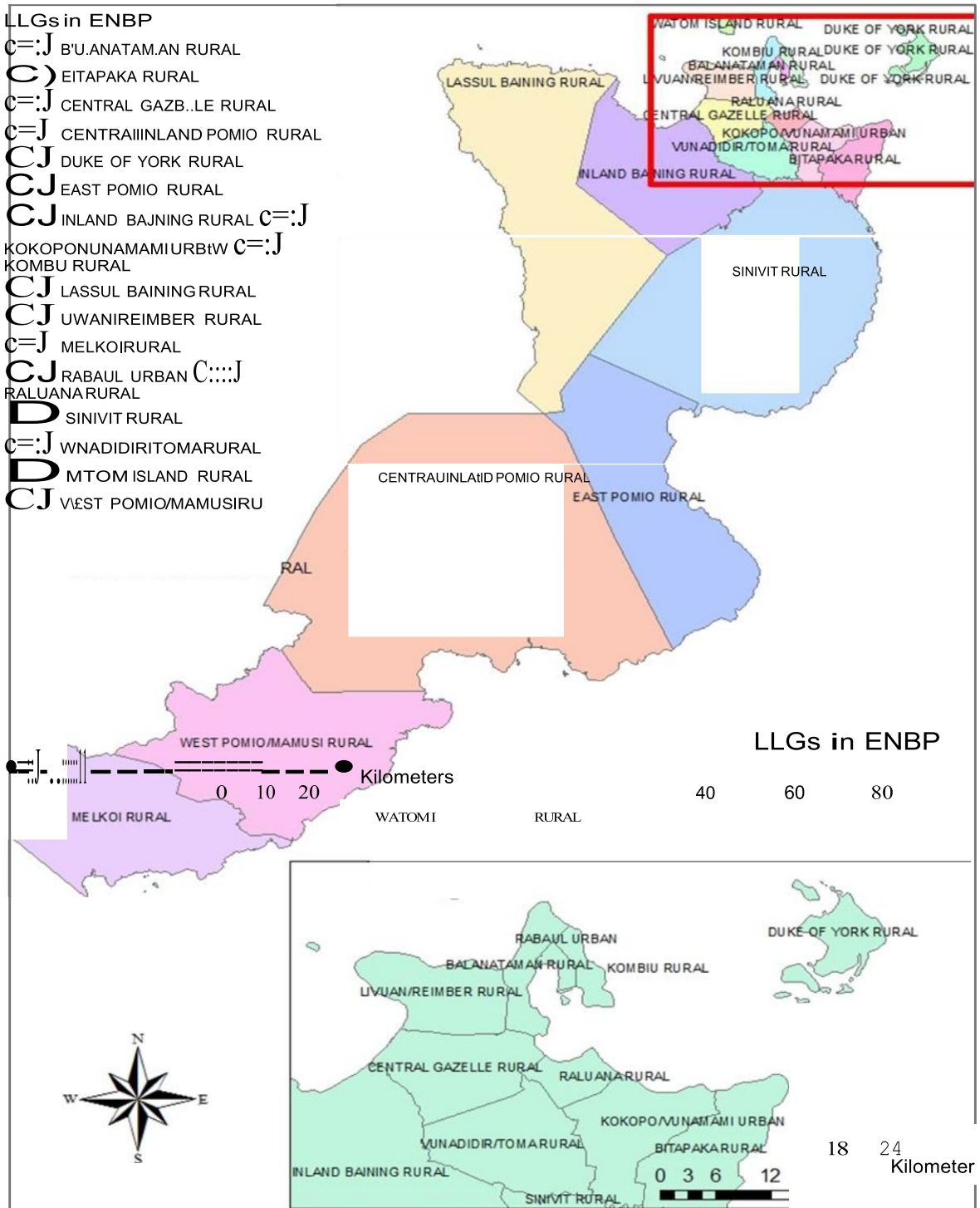


Figure 7: Five Municipalities of the Pomio District (Source: Division of Lands & Physical Planning, 2013).

2.9.3 Income and Access to Services

According to Hanson et al., (2001), the people of the entire district of Pomio earn relatively low incomes from selling cocoa, copra and food. A handful of people receive wages and royalties from forestry operations, especially those in the south of the district. Additionally, others earn money as migrant labour in other parts of the Province, for example from plantation work.

The Pomio district has poor infrastructure with no major road links. However, there are rough logging roads in inland Pomio that run south of Kokopo and near Pomio. People in inland valleys of Nutuve and Leli are very isolated and require a day's travel by foot to reach service centres. Water transport is commonly used to reach the main towns (Figure 8).

Mostly used are outboard motor boats (Hanson et al., 2001). The lack of proper connections to the regional centres decreases the income gained from cash crops because some of the produce rots while waiting for the irregular ship transport to Rabaul. Transport costs also decrease net income.

When the village is remote with challenging topography, the village will have services only if there has been logging. Unfortunately, with logging, the forest is no longer available for customary use. However, logging helps to gain access to services and regular income to sustain and improve the livelihoods in the area (Tammisto, 2010). This has been dramatic for the customary livelihood systems and has brought change to the forests, the land and the environment. With the conflicting developments underway, the Sustainable Livelihood Framework model (Section 2.4) best shows the changed living conditions of the locals and their adaption to the changes. As a result of the changes, the livelihoods of the rural women are affected adversely.



Figure 8: The outboard motor boat and the canoe are the main modes of sea transport. (Photo taken during field work November, 2013).

2.9.4 Women in agriculture

The ways in which Pacific Island women (including PNG women) participate in agriculture varies from island to island and through local cultural norms. Women's critical contribution to planting, tending and harvesting crops and gathering edible marine life sustains the majority of the people throughout the region (United Nations Women, 2012). Women in the Pomio district adhere to these roles in their communities. This contributes greatly to their social status since land is inherited through the female lineage. Women's critical role in planting and gathering food helps them to maintain their social relationships and roles in their communities as well as in the clans they represent. For instance, at several funeral feasts that the researcher witnessed in ENBP villages, women showed their wealth by contributing large bundles of *tabu* to the deceased families. *Tabu* is the traditional shell money (sea shells strung together with cane rope) used as currency in the barter system of the traditional economy and is still used today for trading. Most importantly, women bear children to maintain their social status and to maintain the clan

lineage. When a woman does not bear children then the clan lineage becomes extinct and sometimes as a result the clan loses ownership over the land. When men get married, they go to live with their wives on their wives' clan land. The husbands do not have inheritance rights but they do have user rights which gives them limited rights to participate in management, the use of land and the making of decisions over the land. The men work hard to contribute towards social obligations such as mortuary feasts and rituals so that their children are granted rights over their mothers' family tribe land.

2.9.5 Development Partners

Land developments have taken place in ENBP. However, the development of services in Pomio has been difficult due to its geographic features. The potential of the forest resource is seen as an opportunity to promote socio-economic development. Under the Pomio Economic Development Strategy (PEDS) of 2005-2012, the Ili-Wawas and Sigite Mukus Rural Development Project was initiated (Tammisto, 2010). The PEDS aims to harness the potential of Pomio by promoting the private sector including the village people, to become productively engaged through the mobilisation and alignment of land, labour and financial capital, to support the development of the integrated agro-forestry projects (Oimop Nius, n.d. as cited in Tammisto, 2010). There are two developers involved in the integrated agro-forestry projects, Tzen Niugini Limited and the Rimbunan Hijau (PNG) Limited Group of Companies. The developers operate under the Timber Authority component of the Papua New Guinea Forestry Authority (PNGFA) legislation. The Integrated agro-forestry projects are implemented under the specific purpose Timber Authority Two (TA-02) and Timber Authority Three (TA-03). Under TA-02, timber is harvested for road line clearance, while TA-03 concentrates on harvesting the timber for clearing in preparation for agriculture or other land uses (PNGFA, 2007).

2.9.5.1 Tzen Niugini Limited

Tzen Niugini is a subsidiary of a Malaysian logging company Cakara Alam. It is a PNG registered company and a forest industry participant. In March 2007, Tzen Niugini Limited was granted a Timber Authority to cut 150,000 hectares of forest in Pomio, ENBP, by the PNG National Forest Service board (Pacific Island Report, 2007). At the same time, it was also awarded a stand-alone Special Agriculture Business Lease (SABL) to venture into agricultural projects such as oil palm, cocoa and reforestation using local native trees. The SABL granted Tzen Niugini Limited rights to venture into oil palm establishment after timber harvesting.

Today, the Iii-Wawas Integrated Rural Development Project runs from the Sinivit area to the East Pomio area. It is supported by the resource owners, Sinivit and the East Pomio Local Level Governments, and the Provincial and National Governments. Wide Bay Investments Limited (proponents & landowner company) was incorporated to deliver the project. The Landowner Company is made up of a mixture of tribal groups; the Baining, the Sulka- Mengen mix, the Tomoip, the Sulka, and the Mengen. The State is involved to facilitate the project. The project comprises a total land area of 170,000 hectares under the 12 customary clan zones (Tzen Niugini Limited & Wide Bay Investments Limited, 2005). The 170,000 hectares was the gross area earmarked for the agro-forestry project in the two LLGs as indicated in Table 2.

Table 2: Forest land area under Iii-Wawas Integrated Rural Development Project

Description	Area (ha)
Commercially forested - operable areas	150,000
Steep and Rocky - non operable area	14,025
Non-timber Area - non operable area	5,975
Total	170,000

(Source: Extracted from Tzen Niugini Limited Report, & Wide Bay Investments Limited 2005)

The main objective of the projects is to bring socio-economic development into the Pomio District through agro-forestry projects and the construction of a road network to connect Pomio with Kokopo and Rabaul. The project has two phases (Tzen Niugini Limited and Wide Bay Investments Limited, 2005):

- a. Phase One: the construction of approximately a 135 km road that connects the existing road at Cape Oxford TRP (*Timber Right Purchase* - south west Pomio) to Kokopo Iii (east Pomio) under a Timber Authority for Large Scale Road line.
- b. Phase Two: Land Clearance for the development of oil palm plantations under a Timber Authority for Agricultural Clearance.

The integrated agro-forestry projects will enable a road network to be constructed, followed by the establishment of oil palm plantations between Iii (Sinivit LLG) and Wawas villages (East Pomio LLG). A nucleus oil palm plantation will be initially established at Mevlo valley, as there is a site there that is under State Lease and has an existing oil palm estate (Tzen Niugini Limited & Wide Bay Investments Limited, 2005). It is anticipated that with the construction of the new roads, other cash crops such as vanilla, coffee, copra, cocoa and spices will thrive within these two electorates. The photos below (Figure 9 - Figure 11) show some of the activities being carried out as stated in the report for East Pomio LLG, especially for the Lote Kamlang clan.



Figure 9: Building a culvert over a creek in Millim ward as villagers watch



Figure 10: The new road system along oil palm blocks in the Hoyia ward



Figure 11: An oil palm nursery in the Hoiya ward for village oil palm planting

2.9.5.2 Rimbunan Hijau (PNG) Limited

Rimbunan Hijau (RH) was first established in Sarawak, Malaysia in 1975. Since then it has grown from a humble forestry contracting operation to an international business with interests in forestry, palm oil and manufacturing, and media and information technology (Rimbunan Hijau PNG, 2011).

Rimbunan Hijau (PNG) Limited was established in 1989. RH is the current leader in forestry and timber processing in the forestry sector of PNG. It operates a number of concessions across PNG and has five downstream processing operations. This includes sawn timber, kiln drying, plywood and veneer manufacturing operations. It is the biggest exporter of sawn timber products in PNG and it exports mainly to the markets in Far East Asian countries such as Taiwan, Singapore, Japan, China, Korea, and Australia and New Zealand (Rimbunan Hijau PNG, 2011).

The Sigite Mukus Integrated Rural Development Project in Pomio is the first oil palm

investment by RH in its long-term commitment to PNG. This will bring long-term economic and social benefits to one of PNG's most remote areas. The project, currently at the development stage that covers the Melkoi, West Pomio Mamusi and Central Inland Pomio municipalities, is under four forest concession areas. It covers an area of 42,000 hectares approved for agricultural development, in which 31,000 ha has been allocated for oil palm development (Rimbunan Hijau PNG, 2011). It has established two plantation sites for its operations: (1) South Drina Plantation - State land and (2) Ralli base camp - traditional land. It is expected to contribute royalties, premium payments, infrastructure levies and other community funding worth K834 million (Kina) (US\$390 million) over the project's lifespan as well as providing transport and social infrastructure to the local communities (Rimbunan Hijau PNG, 2011). The project's planned social contributions include education and health facilities that will further improve the social conditions in the district over the coming years. RHPNG believes that long-term investment in PNG with economically, socially and environmentally responsible outcomes will result in a wealthy country that will deliver benefits to all its people. This includes clear economic and social benefits to its employees, its business partners, the PNG Government and the broader PNG community. The photos in Figure 12 to Figure 15 show some of these developments under the Sigite Mukus Integrated Rural Development Project. The photos were taken during the researcher's fieldwork between November and December 2013.



Figure 12: The road network around established oil palm blocks at the South Drina plantation



Figure 13: A newly established office complex for staff and employees at the Ralli basecamp



Figure 14: The oil palm nursery set up under the Sigite Mukus project - three month stage



Figure 15: Young growing oil palm plants at the Ralli plantation

Chapter 3: Literature Review

3.1 Introduction

This chapter reviews studies carried out on oil palm production globally and in PNG, especially in the WNB. The WNB is used as the model for this research since oil palm was first established there in the 1900s and spread later to other regions of PNG, including ENB. A number of studies conducted on oil palm development in WNB, compare WNB to other oil palm growing regions of PNG. This chapter also reviews the studies on the roles of women in agricultural activities and particularly women's roles in the oil palm industry in WNB, and how the industry has benefitted women. This will lead to identifying research gaps, and in particular, research gaps involving ENB which has recently introduced oil palm cropping to boost the socio-economic development of the region.

3.2 Global brief on oil palm production

The oil palm (*Elaeis guineensis*) originated from the natural forests of West Africa. It grows well in the humid tropics in groves of varying density. It grows on relatively open ground and normally spreads along the banks of rivers and later on land cleared by humans for long-fallow cultivation (Wakker, 2005; Kenneth, 2000). Oil palm remains an important staple crop for many of the Africans today. It is commonly intercropped with cassava, yams and maize, and 80% of the oil palm production comes from dispersed smallholders who harvest semi-wild plants using manual processing techniques (Wakker, 2005). According to Hardter and Fairhurst (2002) and Wakker (2005), oil palm was introduced into the Southeast Asian region in the nineteenth century as an ornamental, but it was not until the 1960s that large-scale monoculture development took off in Malaysia, and later in Indonesia in the 1980s. Kenneth (2000) reported that between 1962 and 1982, world exports of palm oil rose from 500,000 tonnes to 2,400,000 million tonnes per year. During this period, Malaysia emerged as the

world's largest producer of palm oil contributing 56 percent of world production and 85 percent of world exports of palm oil in 1982. Currently, as reported by the Organisation for Economic Cooperation and Development (OECD) and Food and Agriculture Organisation (FAO) (OECD & FAO, 2012), Malaysia and Indonesia are set to remain the world's two largest producers of palm oil accounting for respectively, 20 percent and 14 percent of global palm oil output by 2021. There are large rates of growth in oil palm production in some countries in Latin America but the areas planted are small compared to the Southeast Asian region due to favourable climatic and soil conditions. The largest centres of production are located in Peninsular Malaysia, and the islands of Sumatra, Borneo and PNG (Hardter & Fairhurst, 2002). As described by Cramb and Curry (2012), the management systems of production for oil palm vary from independent small-holder to large-scale private estates. There are a variety of state-managed or brokered arrangements in between. Experience over the last 50 years throughout the Asia-Pacific region has suggested four general types:

I. Managed small holder schemes

This scheme is adopted only in Malaysia and not in Indonesia or Melanesia. It includes resettlement schemes that involve the development of state land for government-sponsored settlers. Landholders manage their own lots or an agency manages the whole scheme on an estate basis.

II. Nucleus estate-smallholder schemes (NES)

A private or state-owned plantation company acts as a nucleus for a scheme that establishes the central estate, the mill and other infrastructure needed to provide services to the surrounding smallholders. Services may include developing the land, providing inputs, providing credit facilities and technical advice, and collecting and processing the fruit. Sometimes smallholder cooperatives or individual settlers deal directly with the Plantation

Company.

III. Joint Venture (JV) schemes

These are partnership schemes whereby the company develops and manages the land for farmers and pays rent on the basis of the land area contributed (Indonesian model). Also, customary land is leased to private companies by an incorporated land group in return for land rentals, royalties on production and sometimes dividends (PNG model).

IV. Assisted smallholder schemes

In this scheme smallholder groups are linked to input supplies, credit, technical advice, fruit bulking facilities and processing facilities. For example, an agreement is reached between a group of farmers, a fertiliser supplier and a mill; the farmers are supplied with fertiliser from the fertiliser supplier on credit from the mill. The cost of the fertiliser plus interest is deducted by the mill when the harvested fruit is received.

According to the OECD and FAO (2012), the use of palm oil is expected to more than double over the coming decade with around 9 percent of global palm oil production absorbed by the biofuel industry by 2021. The use of edible vegetable oil for biodiesel production will increase from 12 percent in 2009-2011 to 16 percent by 2021. As a result, palm oil production is expected to account for one third of global vegetable oil production by 2021. Palm oil is the second largest contributor to vegetable oil production after soybean oil in meeting the world's demand for vegetable oil. Hardter and Fairhurst (2002) state that the rising global demand for vegetable oil is being driven by the rising growth in the world population, and by the associated economic development. As a result, it is predicated that global vegetable oil consumption will grow by about 2 percent per year, which is more than double the rate observed in the last decade. At a global level, palm oil for food consumption and biofuel use are estimated to account for respectively, around 64 percent and 33 percent of the total

utilization when compared to 2009-11 (OCED & FAO, 2012). However, as highlighted by Wakker (2005) the oil palm industry and those who facilitate its development (governments, investors, retailers, consumers, resource owners and contractors) face a huge complex set of negative environmental, social and economic impacts tagged to the rapid expansion of oil palm plantations throughout Southeast Asia. Sheil et al., (2009) argue that oil palm production has contributed to deforestation, peat degradation, biodiversity loss, habitat loss, forest fires and a range of social issues. Uncontrolled expansion is a major threat to the tropical rainforests of the Southeast Asian region. Cramb and Curry (2012) also reveal that the rapid expansion of the industry in the region has given rise to a raft of complex economic, social and environmental issues varying in their relative importance across the region. The most important economic issue being raised at the micro-level, is the question of specifying the conditions under which oil palm can provide the greatest contribution to sustainable rural livelihoods. This is because the large traditional forest lands, on which the indigenous people have relied to sustain their livelihoods, are converted to large scale oil palm plantations to maximise production and profits.

3.2.1 The History of oil palm development in Papua New Guinea

Oil palm was introduced to PNG by Germany in 1894 (ref needed). It was first planted on the Rai Coast of PNG by Germany in 1894-95 and Germany later established experimental plantings in the early 1920s near Popondetta in the Oro Province (formerly the Northern Province). Commercial plantings began in the late 1960s by Australia following a World Bank recommendation that oil palm production be established on a nucleus estate-smallholder scheme (NES) system, and that it be introduced in WNB or Bougainville, to diversify PNG's agricultural economy and to increase the export income of PNG. The World Bank recommendation coincided with the Australian colonial administration's land settlement

programme to open up alienated land for the voluntary resettlement of rural people from over-populated areas to the “underpopulated” provinces of PNG.

This alienated land was subdivided into smallholdings for the primary purpose of cash crop production (see Chapter 2) (Koczberski, Curry & Gibson, 2001; Cramb & Curry, 2012).

Koczberski, Curry & Bue (2009) report that oil palm production has grown quickly in PNG over the past 20 years and has become the largest agricultural export earner. Today, over 136,000 hectares are planted with oil palm in the five Provinces: West New Britain, Oro, Milne Bay, New Ireland and Morobe. Around 33 percent of PNG’s oil palm is produced by smallholders who are mostly from WNBP.

Since the country relies heavily on the agricultural sector’s economic contribution to the Gross Domestic Product (GDP), the government supports the agro-industries through its policies. The agricultural sector is also one of the main contributors to infrastructure development in the country’s rural areas. Rural communities rely on infrastructure such as roads, ports, healthcare, law enforcement and construction projects. International Trading Strategies Global (2011), reports that the oil palm industry has become one of PNG’s most successful agricultural industries. It has accounted for around 39 percent of agricultural export earnings over the last decade while directly providing income for over 160,000 people living in rural households. The industry has also supported most of the infrastructural developments in the remote parts of the nation through the establishment of road networks, bridges and sea ports. The development of the oil palm plantations have become an important new driver of land use change in some parts of the country.

Despite the economic benefits of oil palm, Shearman et al. (2009) argue that tropical forests are undergoing wide scale deforestation and degradation, largely as a result of the conversion of primary forest into secondary forest through logging. Following logging, oil palm

plantations are established on the rationale that the degraded land is not appropriate for any other agricultural activity. In addition, oil palm is a monocultural crop that does not provide diversified habitat and resources compared to the natural forest. When forests are destroyed, it affects the habitat of the vast ecosystem of native plants and animals as well as contributes to greenhouse gas emissions. This further adversely affects the indigenous flora and fauna which disadvantages the local people and ousts them from their main livelihood support systems. The forest provides the people with their basic needs such as shelter, water, food, fuel and protection for crops. Villagers collect what they need for sustenance from the forest. In protecting the forest for their own benefit, the villagers protect the forest for its own sake as well (Dhali, 2008; Forests Monitor and Community Rights Advocacy Forum Inc. [ICRAF], 1999). For example, most of the residents on the Willaumez Peninsula belt from the north coastal plain of WNBP to Open Bay near ENBP, are heavily reliant on local resources for their everyday survival, in particular, land for gardening and commercial agriculture and the marine environment for marine resources (Koczberski, Curry & Imbun, 2009).

3.2.2 Oil Palm production systems in Papua New Guinea

The oil palm growing regions of PNG have adopted the following production systems: Estates, Nucleus estate-smallholder schemes (NES), Joint Venture schemes, assisted smallholders and independent smallholders (Cramb & Curry 2012) but production systems vary from one region to another depending on the different land tenure arrangements. For example in WNBP and Popondetta, smallholder production systems are located on Land Settlement Schemes (LSS) or State leased land, and on Village Oil Palm schemes (VOP), or village-based production on customary land. VOPs were later introduced after the LSS schemes; these were established to encourage more participation from local villagers in the industry. Under the different production systems, production can be undertaken at various scales. However, considerable

economies of scale are needed to achieve the necessary timelines in the processing of harvested fruit into crude palm oil. For this reason, incentives for establishing a substantial planted area within the vicinity of an oil palm mill with good road infrastructure throughout, are required to bring in palm oil fruits after harvesting as the oil quality deteriorates very quickly. Consequently, all five oil palm growing project areas in PNG are managed on a nucleus estate-smallholder scheme model whereby smallholders supply oil palm fruit to the mills run by the nucleus estate company. This is a long term capital investment, as the oil palm crop begins to bear fruit in its third year and has a productive lifespan of 25-30 years (Cramb & Curry, 2012).

3.2.3 The Structure of the Oil Palm Industry in Papua New Guinea

The estate companies own and operate the processing mills. As well as processing the oil palm fruits from their own estates, the estate companies also assist smallholders by transporting the fruit to the company processing mills, by providing the seedlings and by providing the technical services and advice. In most of the project areas, smallholder oil palm fruits are harvested fortnightly and stacked on the roadside at the edge of the block for collection by the company for processing. A harvest takes up to three to four days, depending on the size of the planted area, the age of the palm plantation and the number of people assisting with the harvest. The fruit is cut off from the palm trees and transported in wheelbarrows and stacked for weighing and collection (Koczberski, Curry & Gibson, 2001). The smallholders sell their fruit to the company and depending on the project area, are paid either fortnightly or monthly. For smallholders, the family unit provides the labour which is usually divided between oil palm and other livelihood activities. The harvesting of oil palm fresh fruit bunches is done at two weekly intervals and general management practices are ongoing in which family labour is a critical factor in

smallholder productivity. Koczberski (2006), states that the most productive smallholder households are those with a high level of inter-intra household cooperation. For instance, the co-operation of family members in palm oil and other communal activities operates on an implicit contract. The male household head is responsible for maintaining this contract, with the distribution of household income. It is understood that the male household head decides on how much each family member receives when income is earned from the sale of Fresh Fruit Bunches (FFB) from the oil palm plant.

3.3 Land use in the Oil Palm Industry

The introduction of income from cash crops has brought new sources of wealth that has supplemented traditional items such as garden produce, pigs, shell money and other indigenous valuables. Koczberski et al., (2009), state that the cash economy has also deprived people of their rights over customary land when the land is leased. Their property rights for cultivating gardens, collecting and gathering food and harvesting forest products has disappeared. As more land is taken by oil palm developments, population pressure and land pressure have become a problem for the second and third generations of settlers in WNB (Koczberski, 2002). According to Butler (2009), it is reported that oil palm developers are not always true to their commitments in regard to land dealings, but deceive locals into signing what are essentially debt-bondage contracts under the mini-estate and smallholder modes of palm oil production. This has been observed in palm oil growing provinces such as in WNB. This occurs where a private or state-owned plantation company establishes a central palm oil mill and then provides services to the surrounding smallholders; services such as the development of land, providing inputs, credit and technical advice, and the collection and processing of the fruits, as mentioned by Cramb and Curry (2012). Service fees are then debited from the smallholders' accounts, when payments are made after the oil palm harvests.

Some studies have been done on oil palm development in PNG (Cramb & Curry, 2012; Koczberski et al., 2012; Curry et al., 2012; International Trading Strategies Global, 2011) showing how oil palm development has contributed greatly to the economic growth of the country through employment, export sales and government revenue. Oil palm has also assisted rural people to move out of poverty and into better living conditions. Thus it has become an economically successful agricultural crop which has recorded greater increases in real income than cocoa, coffee and copra.

Most research is focused on WNBP and Oro Province where oil palms have been developed on land under land settlement schemes (Koczberski et al., 2001) rather than new developments on customary land. For years, customary land was leased under the lease lease-back scheme to the state for development. However, this scheme was given a new meaning in 1996, when the Land Management Acts were amended to cater for agro-forestry activities. The new lease was given the new name of the Special Agriculture and Business Lease. These are leases granted to foreign investors to clear forest land through timber harvesting under the two specific Timber Authority (TA) permits, TA-02 and TA-03. After the timber has been harvested, the developer and resource owners then decide on what agricultural activities are to be introduced. In order to sustain the livelihoods of the locals after logging, the obvious choice is seen as oil palm which is considered to be the most viable and economically successful agricultural crop for the locals in the long term.

Filer (2011) reports that from 2003 to 2010, about 10 per cent of PNG's total land area was alienated from its customary owners and transferred to private companies through the lease schemes. However, there is limited research on the impact that land alienation is having on communities who have leased their customary land under the timber authority permits, and where there has been implementation of the new Special Business and Agriculture leases.

Locals may have signed these leases without fully understanding the consequences for their families and communities over the life span of these leases. Studies by Koczberski et al. (2009) reveal that economic and demographic changes have been accompanied by marked alterations in land tenure. A result is that land rights have become individualised as land is removed from the communal pool of clan land, which is governed by communal tenure and matrilineal and patrilineal principles of inheritance. However, there are limited studies on land use changes in ENBP which are traditionally governed by matrilineal tenure. Also, the new developments under the new Special Agricultural and Business Lease legislation are yet to be studied. It is also not clear what arrangements are in place for benefit sharing agreements with the communities involved. The steps taken to enter into lease agreements with the various participating customary owners and institutional parties are illustrated in Figure 16. This illustrates the different governance channels, starting with the community level through to the National level and then to the granting of the leases to the foreign investors. The spin-offs from development projects are received at these levels. At the community level, locals receive royalties, log export premiums and levies while at the National level, investors are taxed. These land-use changes introduce a new way of living for the rural population; their day to day lives are transformed completely. Some changes are for the better while some are not, particularly for women who often lose their customary status while getting more work to do. To better understand this transition, the Sustainable Livelihood Framework concept is used (see Chapter 2). Figure 16 illustrates the organisational structure of the stakeholders in the lease agreements.

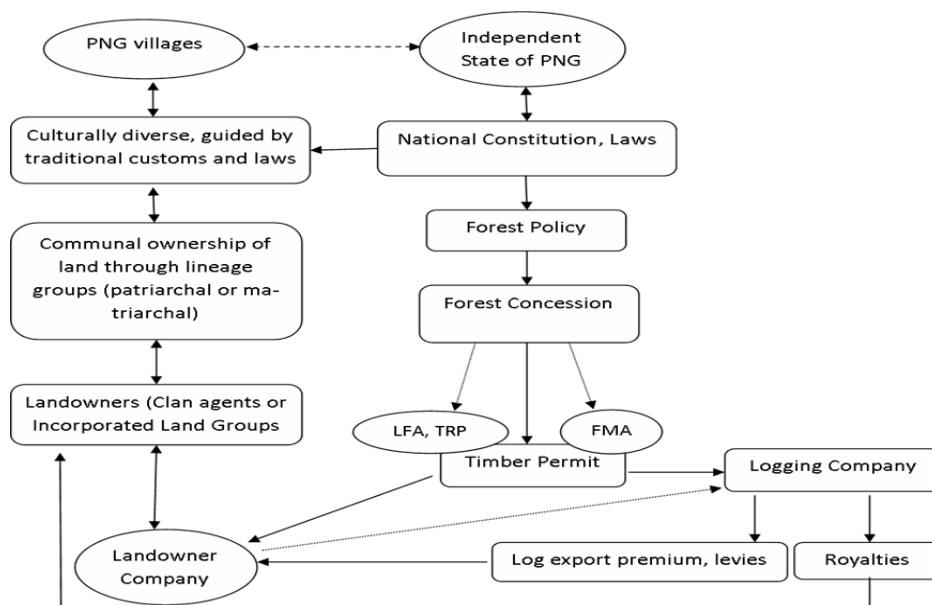


Figure 16: Organizational structure of the stakeholders in the lease agreements

(Source: Hasagama, June, 2014)

3.4 Women's role in Agriculture

Women's agricultural role in PNG is an indispensable part of food production and consumption practices. Women play an important role in agricultural production throughout the Pacific region, whether involved in subsistence farming to feed their families or growing food and cash crops to sell in the market (UN Women, 2012). Significantly, women play an active role in both cash and subsistence food production, where the cash crop activity is mostly conducted in the informal sector. Cahn and Liu (2008) report that in rural PNG, gender roles and the associated gender-based division of labour are strongly defined between men and women. For rural livelihoods, women play a major role in food crop production (local food crop production for consumption and marketing), in rearing livestock for subsistence food, in their contribution to cultural feasts, for reciprocity, as well as for cash. Sillitoe (2006) argues that women spend four times as long as men engaged in agricultural production, for an average total of 28 hours per week, in addition to an average of nine hours spent walking to and from the gardens and 11.5 hours cooking. Moreover, a study by Kolopen, Fahey, Bafui and Saese (2006) argue that women participate in the decision-making processes regarding the

cultivation of subsistence crops, child care, family planning and the less prestigious aspects of cash crop production. Men take the lead in decision-making over cash oriented agricultural development projects such as cocoa, coconut, coffee, oil palm and tea. This division of responsibility also applies to the mining and logging projects in the rural communities in which the men do the decision-making. It is also supported from a report by the Fresh Produce Agency (FPDA) (2008) that men retain far greater control of income earned from cash crop production. Women have little or no control over cash crop income and tend to spend little time in the money-making aspects of cash crop production but rather commit most of their time to caring for crops for consumption.

Over the years, these changes from a subsistence to a cash economy have affected the overall lifestyle, culture and livelihoods of the indigenous people and the way they interact with their land and environment. The most vulnerable are women, because as the food producers and household providers they hold the greatest connections to their land. Land use changes have brought with them both the benefits and costs, and the costs have affected women the most. Furthermore, studies by Archer and Meer (2001), Macintyre and Foale (2007) and Macintyre (2011) reveal that women are also adversely affected when communal land is given up for developments such as mining, commercial logging and large scale agro-industries. Women do not share in the decision-making and issues affecting them are ignored. Most priorities are distorted in favour of men's interests. Koian (2010) argues that this has become very important today as development agencies arrogantly often by-pass women when undertaking consultations for development projects.

In PNG society where both patrilineal and matrilineal systems exist, women have been experiencing all sorts of pressures in regards to the land. As men strive to find ways to bring in development, they forget to involve the women in the processes (Koian, 2010). However,

what is it like for women who have land ownership rights over land through the female lineage, but are ignored when it comes to the decision-making on how the land should be used? How do they voice their concerns when land is leased to the state or to corporate developers for resource development?

3.4.1 Participation of women in the Oil Palm Industry

The oil palm industry in WNBP is a much longer established oil palm development than the development in the ENBP. The first plantings began in 1966, in a World Bank-backed scheme at Hoskins; then the Bialla scheme followed in 1972; then Popondetta in 1976; Milne Bay in 1985; and New Ireland in 1988 (Koczberski et al., 2001). About 33% of PNG oil palm is produced by smallholders and the highest volume of production comes mostly from WNBP (Koczberski et al., 2012). As the vast majority of oil palm smallholders live on land settlement schemes established during the 1990s, studies in WNBP reveal that garden food production is still a fundamental component of the livelihood strategies. These include food production for household subsistence, production of other cash crops, and non-farm employment such as small-scale businesses. Many smallholders spend a great deal more time in food production than they do in oil palm related work. For women especially, gardening is a central component of their everyday lives. Food is cultivated for household consumption and local markets. Local marketing of garden produced foods provides women with additional income sources to oil palm. This income from local marketing of garden foods is important because the smallholders live on highly populated blocks where available land is scarce. The local marketing of garden foods is also important for supplementing income during times of low oil palm prices. For most women in these areas, local marketing of garden foods is their most important income source after oil palm. This has caused women to do double the workload; the household

chores and the garden work and then assist in the oil palm blocks (Cramb & Curry, 2012; Koczberski et al., 2012; Koczberski et al., 2009, Koczberski & Curry, 2005). Despite this, women are paid less by the husbands. Sometimes all the money is used up by the men for their social obligations such as the purchase of alcohol, cigarettes and betel nuts (areca nut). As a result, women see that there are less economic rewards available from being involved in palm oil production and little is recognised of their role in the industry (Koczberski, 2006). This has led most women to withdraw their labour from oil palm production and concentrate their efforts on food production where they have more control over production. From this, women have the opportunity to earn a small income from selling these products (Koczberski, 2002). Unfortunately, the institutional context of smallholder production, together with indigenous cultural norms regarding women, household labour and land and crop rights, and men taking the lead in oil palm production decision-making, effectively exclude women from oil palm production and have relegated them to just being household helpers (Koczberski, 2006). Women withdrawing their labour from oil palm work caused the major problem of a high rate of oil palm loose fruit wastage among smallholder producers, causing the industry to lose substantial revenue. This has led the Industry to introduce the mama lus fruit scheme. This is a system that remunerates women directly for harvesting loose fruit. The loose fruits are collected from the ground after all ripe fruit bunches have been cut off from the palm. This scheme has improved women's access to oil palm income because women are able to earn income for the labour they provide to the industry. This also increases the smallholder production output and has brought women into oil palm production in WNB as intended by the mama lus fruit scheme (Koczberski, 2006). This has provided a basis upon which household domestic and productive relationships are being restructured to benefit women. Through this scheme, women have expressed their newly derived

financial autonomy, not so much in terms of how it has challenged existing gender and social roles, but rather how it has helped to support and reinforce their domestic and gender roles and responsibilities. Thus women's sense of self is being re-established through their wider social and kin networks (Koczberski, 2002), which are values that are deeply embedded in PNG culture. The mama lus fruit scheme as a social practice has also strengthened the viability of households and communities and improved livelihoods, in conformity with western ideas of development (Koczberski, 2002 & 2006). The involvement of women in the oil palm industry indicates how important the roles played by women are in the agricultural sector, both in the subsistence and cash economies. However, women are not recognised for these roles and functions at the household and community levels, when decisions about land developments are being made.

3.5 Gap Analysis

As outlined in the literature review, customary landowners need to fully understand the costs associated with these changes, as their social and physical livelihoods are supported by the land. The most vulnerable section of population is the women because they lose a primary source of food, their workload increases and they have little voice in the decisions made. Their status as women in a matrilineal society is compromised, their customary gender roles and power are diminished but their workload has increased. Is there a mama lus fruit scheme in ENBP as there is in WNBP as an additional area of development which mitigates these adverse effects on women? How are women involved in the different stages of land-use changes – from incorporation to formation of land owner companies and benefit sharing from royalties?

The aim of the study is to investigate how women are affected by the oil palm developments in ENBP. What kind of ability have women had to influence development decisions? What systems are available for women to voice their concerns and which factors influence their

degree of participation? What type of contractual arrangement exists between the local people and foreign investors in regard to benefit sharing? The research subject to be investigated is: “An exploration of the impact of Oil Palm developments on women in Pomio, East New Britain Province of Papua New Guinea”.

This gives rise to the main research question which is:

▪ **How are women affected by oil palm developments in ENBP?**

This gives rise to the following sub-questions:

Research questions:

- 1) How do women participate in decisions about land-use changes?
- 2) What are women’s views on the land-use changes?
- 3) What types of arrangements are available for women to participate in these projects?
- 4) Which factors affect the degree of women’s participation?
- 5) What are the roles and status of women in land-use changes in their communities?
- 6) How will women’s lives be affected?

Chapter 4: Methodology

4.1 Introduction

This chapter describes the research methodology and the processes used. It includes a discussion of the research approach, the processes used to select participants, the data collection and the analyses. It also considers the issues of cross-cultural factors and ethics. Constraints that affect the study are identified.

4.2 Research approach

The study approach focuses on the participation of Pomio women in the decision-making processes involving land-use changes. An ethnographic approach was chosen as it is an exploratory research methodology where new knowledge and understanding is sought.

Davidson and Tolich (2007, p.276) state that:

“Ethnography is a qualitative research method where the researcher goes out into the field to study a group or community in its natural setting; the heart of ethnography is the combination of observation, participation and unstructured interviewing in the field of study”.

This research has the central aim of providing holistic insights into people’s views and actions, as well as the nature of the locations they inhabit, through detailed observation and interviews. In addition, Reeves, Kuper and Hodges (2008) state that ethnography enables the study of social interactions, behaviours and perceptions that occur within groups, organisations and communities. It is about getting inside the way each group of people see the world, and it has a strong emphasis on exploring the nature of a particular phenomenon, rather than setting out to test a hypothesis about it.

A case study approach was adopted because it allows the researcher to study small areas in

greater depth (Davidson & Tolich, 2007). This research was conducted using three sources: a review of available literature, and interviews and observations in two different project sites, chosen because of the involvement of two separate project developers. It was hoped to reveal differences as well as similarities.

Qualitative research techniques were used to gather the data. The qualitative process seeks differences and divergence, and also identifies common elements. It has a greater ability to interpret the rich data that is gathered compared to the case with solely quantitative research (David & Tolich, 2007). Therefore, the task of the researcher is to document the culture, the perspectives and the practices of the people in their settings. Here, the researcher works primarily with “unstructured data” (Reeves et al., 2008). The focus is on detailed and accurate descriptions which help to explore the perspectives of all the different people who participate in the development projects.

This study views the work of two different developers in the Pomio district involved in integrated development projects, and the participation of women in the decision-making processes on these projects. The development projects were integrated in the sense that the projects contribute to the socio-economic development in the particular area. For instance, building infrastructure such as roads and bridges creates easy access for the transportation of cocoa, copra and other food crops for the villagers to sell in Kokopo town, as well as making it easier for establishing oil palm schemes. The development projects have also created employment opportunities for the locals to earn income through wage payments. Two project sites were chosen as case studies for this research. This was done to allow for comparisons to be made. Studying two project sites helps to develop deeper understanding of the ways and systems that are available for Pomio women to participate in the projects. There are differences because there are two separate developers involved in the five municipalities, and

there are also two different systems of production used in the development of oil palm projects. The location of the two project sites are identified in Figure 17 and a full description of each is provided in Chapter 5.

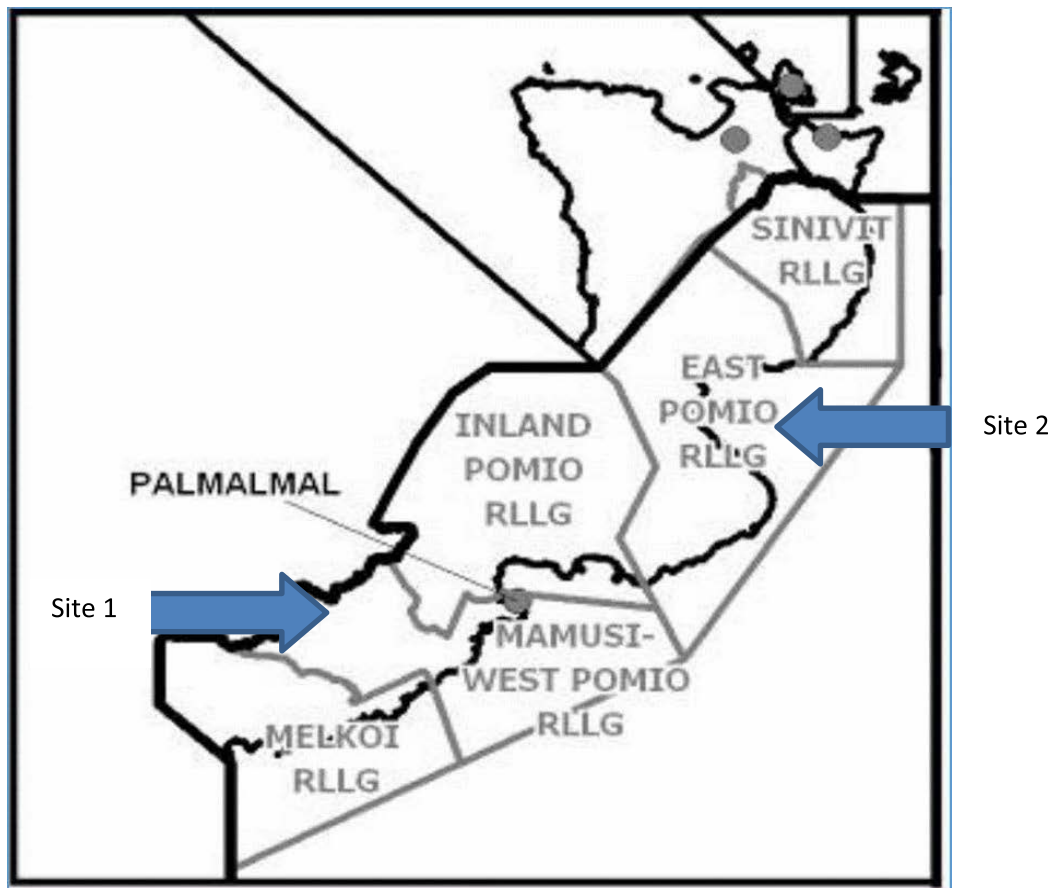


Figure 17: Location of the research sites (Source: National Research Institute PNG, 2010)

4.3 Participants

The targeted participants of this research were local community members from the selected sites. They were key informants in the communities, especially women, women's representatives or spokespeople, village leaders and elders and government officers. The researcher had a previous working experience with the Pomio district administration which allowed for easy communication with the government officers and stakeholders. Prior to beginning this study, former work colleagues arranged research approval with the relevant stakeholders. Once on the selected site, I was introduced to the community leaders,

government workers, people in the communities and most importantly the women. Every dialogue began with personal introductions and a clear outline of the research project. At times, questions were asked of the relevance and importance of the research results to them and the community as a whole. In order to provide answers, more in-depth explanations of the research objectives were given.

Observations of the locals, the communities and the developers, played a significant role in the data collection due to the nature of the study. It also helped for someone from another culture to learn and understand some of the fundamental aspects of the cultural norms of the communities before conducting the actual field work. For example, I became aware that women are not allowed to visit the men's houses and that visits to some sacred sites were not allowed for a new person or a visitor because of the belief that the spirits would bring sickness to the visitor.

Participants were chosen in order to get information on the different perspectives of women's participation in the decision-making processes regarding the land- use projects. These included seventeen women from the two project areas. They were selected from different villages, socio-economic backgrounds and status. However, on most occasions, the interviews were conducted with those women who were available on appointed days because many were often away working in the oil palm projects. A total of thirteen men were selected for the study project. It was within the scope of the research to select men who were community leaders and elders and some government workers. "Community leaders" refers to those informants who are elected by the people to represent them in the local government administration, while the village elders or headmen are those leaders who have gained their titles through the clan lineage system in their customary community. Participation of government officers was sought in order to gather unbiased information

from both the women and the men and at the same time, to draw out information on the roles the government agencies play in order to support women.

In qualitative research using the case study method, snowball sampling tends to be successful when aiming to capture the diversity of the situation. This is because a small band of likely informants are identified and these informants are relied upon to generate contact with other people who share the activity the researcher is interested in exploring (Davidson & Tolich, 2007). In this study, the first participant was identified and interviewed. He or she was then asked to identify the second participant to be interviewed, who was then asked to identify the third participant and so on until sufficient data had been collected. As can be seen, the research was not aiming to have a large sample but rather to have a small sample that provided in-depth knowledge. A total of 30 participants were interviewed and observed, as listed in Table 3. There were a total of eight villages visited in the two case study sites. Four villages from each site were selected in order to have equal representation from the two case study sites. These villages are in close proximity to established oil palm projects.

Table 3: Total number of participants in respective study sites

Project Site	Individual	Village 1	Village 2	Village 3	Village 4	Total
Site One	Women	4	4	3	1	12
	Men	1	1	1	1	4
	Agricultural officer					2
Site Two	Women	2	2	1	0	5
	Men	1	2	2	0	5
	Developer Representative					2
Total						30

4.4 Data Collection

Data collection methods included in-depth interviews, conversations and observations.

4.4.1 Interviews

Davidson and Tolich (2007) report that in-depth interviews allow a relationship to be developed with informants and therefore, a greater understanding of their views can be established. Semi-structured interviews were conducted with individual participants, from mid-October to early December 2013. Most interviews were carried out at the participants' preferred locations, which was generally in their villages. This was in order to offer confidentiality from the first point of contact, and therefore promote trust with the interviewees, because the researcher was a complete stranger. Also, the interviewees would be concerned about how much the interviewer could be trusted. Interviews with the women and the men were conducted separately in their respective houses, and while they were sitting. Interviews were carried out separately because the women needed to feel free to openly communicate with the researcher, and research guidelines were structured differently for each specific informant. This also provided an opportunity for the researcher to experience and observe the household's normal day to day activities and the standard of living in the different villages. Conducting the interviews in their houses also provided a relaxing setting and as well, allowed the participants to carry on working and in particular, allowed the women to continue taking care of the young children while being interviewed. Prior to beginning the interview session, the researcher provided to the participant, a clear explanation on the nature and purpose of the research. The method of lead-in to the interview was to ask the participant about their customary way of life and to ask them to explain their customary way of life in a manner that someone who is new to their culture could understand. This helped to relax the participant and worked as a stepping stone to building a trusting relationship.

Prompt questions were used as a guide in conducting the interviews. The questions were open-ended with a minimum of structure, providing flexibility and allowing detailed information to be gathered. The questions were adapted during the research process depending upon the responses and the understanding of the participants. The study took a descriptive approach to exploring the decision-making processes of the Pomio women in their communities, located in the project development sites.

Interviews with the women began with general questions about their matrilineal culture, followed by questions about their current roles in their communities and how these roles are maintained. (See Appendix B for the questionnaires.) This conversation style helped the women prepare for the questions about their involvement in the development projects. This part of the interview included questions on women's involvement in the decision-making processes on land-use as well as whether and to what extent women receive benefits as users or owners. Interviews with government workers were mainly concerned with the government workers' involvement in providing support to the locals on the development project of concern to them and also, their general views about the overall establishment of the development project. The researcher discussed in more detail the purpose of the study with the government workers, in order to understand the government workers' experiences at the different stages of the project of concern to them and which they had been observing.

In the interviews with the men and especially the village elders and leaders, they were questioned about their matrilineal culture, the men's roles in their communities, and men's support towards women in their communities. The question about the matrilineal culture of Pomio was designed to discover whether the matrilineal culture is still practiced today. Questions about the involvement of women in these projects when land is the subject in question followed. Most of the men interviewed were recognised as mediators in their

communities and liaised between the developer's representatives and their own people on any matters related to the projects. Interviews usually lasted between half an hour and one hour. Sometimes more time was required when translation was needed.

The first interviews were conducted with the developer representatives in the main town of Kokopo, then with the government workers on project area site one. The interviews for women and men in the communities then followed. This same order was used for interviews with the locals in project area site two. Time was spent in reviewing and reflecting on the interviews and making notes on specific areas that needed further investigation. Further investigation was done through observation and normal conversation. Once each interview session was completed, notes were made of the findings and of key observations made. At the end of each day, reflections were recorded by the researcher together with the village experiences.

A tape recorder was used to capture every interview. Most of the interviews were conducted in tok pidgin and on a few occasions a translator was used. The translator did not have to translate entire interviews but instead provided clarification whenever the participant had difficulty in understanding the interview questions which were asked in tok pidgin. To avoid losing the meaning of the words, each interview was fully translated into English as soon as possible after each interview.

4.4.2 Observations

In community based studies such as this study, exploratory questions and observations often form the basis of theory generation, as relevant behaviours and environmental conditions are available for observation. These observations serve as a further source of evidence in case studies (Yin, 2009). Observations took place on the same day that interviews were conducted in the villages. As well as observations made during the interviews, the daily activities in each

village were observed. Attending community meeting days was one of the opportunities used for making observations as shown in Figure 18 and Figure 19. This gave the researcher a personal experience of how the women are able to interact with the men in their discussions of village issues, and how men respond to women's points of view.



Figure 18: A nursing officer doing clinical checks as mothers attend a community meeting in Village Five in Site two (Photo taken during field work in November, 2013)



Figure 19: Observation-making and note taking in a community meeting in Village Three in Site one (Photo taken during field work in December, 2013)

4.5 Data Analysis

Qualitative research focuses on reflecting on the qualities of something (Davidson & Tolich, 2007). Qualitative research is usually analysed by narrative analysis such as recorded responses from the interviews. The observations, the interactions, and the daily activities of men and women, were recorded and the in-depth interviews were recorded and transcribed. This was done separately for each participant from both project sites. Each interview was transcribed separately and typed into a word document. From the transcribed data, key words were noted and common themes were identified and sorted out into groups. The data was closely examined for sequences and compared for similarities and differences.

4.6 Cross Cultural Research

The study involves an element of cross-cultural research. The researcher is a Highlander woman who originates from the Eastern Highlands of PNG; a patrilineal society. The researcher's culture, language and perspectives are different from the matrilineal women of Pomio. According to Davidson and Tolich (2007), cross-cultural research is complex because it involves understanding the culture and the community values, as well as the knowledge and the history. When conducting cross-cultural research, a question that must be asked is whether the researcher is the right person to do the study. The researcher's previous work experience within the matrilineal society (New Ireland Province and ENBP) and in other areas of the Pomio district, has helped in understanding the matrilineal culture, especially amongst the rural groups. The researcher's work experience has provided awareness and sensitivity to the matrilineal culture and on how to communicate with a matrilineal culture. An additional question that must be asked when conducting cross-cultural research is whether all others involved in the research are also the right people to be involved. The assistance of the government workers who were effective and supportive in the logistical arrangements was

essential for the satisfactory completion of the research.

4.7 Ethics

Care was taken at every step to ensure that this study was conducted to a high ethical level.

Prior to the interviews being conducted, the interviewees were informed about the purpose of the study and how long the interviews would take to complete. It was made clear to them that they were to ask questions when they required further clarification on any question asked in the course of the interview session. Participation was voluntary for individual participants.

Most of the women in the villages are not able to read and write so a detailed explanation was provided to participants about the requirement for their consent to be given before they could participate in the interviews. Those who agreed verbally to be interviewed were considered to have consented to be part of the research. As in most rural areas of PNG, local villagers, particularly women, are not comfortable when asked to sign forms. The rural society of Pomio is based on oral communication as the people do not have a written language.

Consequently, more time than would usually be required was spent repeating and explaining questions to participants.

All the data collected from the participants was treated with confidentiality. Participants were required to give their names or write them down, and as well, give contact information so the researcher could contact the participant for clarification if responses given during the interviews were not clear. Contact information was kept until the departure of the researcher from the study areas, whereupon it was destroyed. Trust and confidence was built between the participants and the researcher from the first point of contact. The researcher assured the participants that the information given would not bring any problems to them, whether physical, psychological or legal. When interviewees are quoted, codes are used to protect confidentiality. For instance, numerical codes are used for the women and men, and

alphabetical codes are used for the government workers. Data stored on computers was password protected and filed notes were stored in a locked book drawer.

4.8 Constraints

It is significant to highlight the constraints affecting this research. There are limited opportunities to observe how forestry land is converted to agro-industrial land along with the reactions from the original communities as the conversions take place. The logging and cash crop projects pave the way for infrastructural development in the rural communities in which the projects are implemented. However, the lack of stakeholder collaboration and co-ordination meant that these projects were not implemented on time as predicted in the initial project proposals. In Pomio's case, government agencies lacked accurate documentation and also lacked accurate reporting procedures regarding the project implementation. Therefore, there were limited numbers of public documents for background information on the projects. In addition, misunderstandings between the locals and the developers over land dealings made interviews with company workers and landowner company representatives difficult. Similarly, when village leaders tried to make arrangements for the researcher to conduct interviews with landowner company executives, the executives were neither at their homes nor in the villages, but were away in town on most occasions. As a result, planned interview sessions with these participants frequently did not happen as most of them were working from Kokopo town rather than from their own communities. For instance, the researcher twice made an appointment for an interview with a chairman of a landowner company. On both occasions, he was away in town attending to company matters, disregarding the appointments. It is possible that government and company stakeholders were trying to avoid being interviewed.

Clashes between different, neighbouring, ethnic-group villages, over land boundary claims

caused security problems which further hindered interviews with potential participants in the villages in project area site one. In project area site one, the limited access to transport to the villages scattered along the coast, resulted in frequent rescheduling of interviews. Sometimes the researcher's unavoidable late arrival to the meetings with village participants caused the meetings to be cancelled because the participants had already left for their planned daily activities. As most women work in the oil palm projects and do not have days off, the researcher had limited opportunities to interview them, which was unexpected. In addition, women are not used to conversing with outsiders and are especially not used to providing views or answering questions about development projects in which they are not involved, even at the community level. Much time was spent repeating questions before responses were given. This was caused by the language barrier. Pomio is an oral society where the particular native language is mostly used with a little tok pidgin. Only a few are fluent in tok pidgin while most are not familiar with either speaking or understanding tok pidgin. Most notes were written down in English during the interview sessions and were later confirmed by listening to the tape recordings which are in tok pidgin. This was done to keep the meaning of responses precise.

Sometimes, organised community activities such as funeral ceremonies, school meetings and church activities prolonged the visits to villages as everyone participated in the community events and were therefore, not available for interviews until after the activity.

This study was restricted to the time period of mid-October to early December 2013. Firstly, time constraints and transportation logistics limited this study. Secondly, limited access to good government and company reports and documents for the development projects, limited this study. Thirdly, some prearranged interviews that did not happen, with participants such as a landowner company chairman and an incorporated land group chairman limited this

study. Also limiting this study was the fact that many of the potential women interviewees were not at home as prearranged, because most of their time was spent working on the oil palm projects. Also, many individuals were not readily available during the planned research period. Others may have chosen not to make themselves available. In addition, many refused to participate for fear of not giving accurate information about the developments, as they were not fully aware of what was happening on their land.

Finally, their limited language and education skills were a barrier that obstructed many women from volunteering to participate in the study.

Figure 20 shows the nature of a newly established road network, on which the school children must walk long distances to reach their villages.



Figure 20: School children walking long distances to reach their villages (Photo taken during field work November 2013)

Chapter 5: Results

5.1 Introduction

This chapter presents the results of the study. The results are based on the data gathered during the field work at the two selected sites. Firstly, Section 5.2 describes the project area and context of the research case studies. Section 5.3 compares the two study sites in terms of project development and accessibility to some basic services while Section 5.4 discusses the livelihoods, roles and responsibilities of both genders within the household and communities as well as their associated gendered roles on land-use tenure issues. Section 5.5 focuses on women's participation in decision-making on land-use. It also explores the system that recognises women's involvement in the development projects. Section 5.6 identifies the barriers women face in participation in decision-making on these projects and Section 5.7 looks at how women overcome these barriers. Section 5.8 discusses major stakeholders who play a leading role in these development projects and Section 5.9 discusses emerging social issues from the Rural Integrated development projects.

As discussed in chapter four, a number of constraints affected the quality and nature of data collected. For example, the researcher could not easily access documentation such as reports, unpublished public reports and lease agreement contract documentation from the various participating stakeholders and institutions at the district level and provincial level. This appeared to be because there was no proper reporting and monitoring systems put in place for timely reporting by respective government agencies and development partners for these development projects. Therefore, the validity of the results reported in this section is dependent on information from the local communities and stakeholders stationed within the study sites.

Participants' responses to interview questions are discussed throughout and quotes are put

into boxes using different colours: women's feedback is shown in orange; men's responses are in blue; and boxes without colour show quotes from officers from government divisions and developers; while green boxes show quotes from both genders. Feedback is either directly quoted or paraphrased. The quotes from participants are shown by quotation marks while those paraphrased are without quotation marks in the boxes. This was done to maintain the meaning of the responses from participants when translating from Tok Pidgin into English. Research participants are coded using numerical codes, indicating the village where the interviews took place. Government workers are coded as officers A, B, C & D. For example, "village elder from village 1 in Project Site One said ..." or "according to officer C from Project Site Two...". The term **project Site One** or **study Site One** and **project Site Two** or **study Site Two** will be used interchangeably throughout to describe the respective cases. The total number of participants from each village and respective study sites is listed in Table 4. It shows which key informants were selected from the various locations for the study.

Table 4: Distribution of selected interviewees various villages

	Male		Female		Officers
	Elder*	Leader**	Spokesperson	Elder*	
Project Site One					
Village 1		1	3		2 (males)
Village 2	1				
Village 3			5	3	
Village 4		1	2	1	
Project Site Two					
Village 5	1	1	1		2 (males)
Village 6		1	1		
Village 7		1			
Village 8	1	1	1		
Total	9		17		4

Elder*(Old person- Over 50 years) **Leader**** (Person appointed through election)

5.2 Case studies

Two project areas were chosen to study and compare the level of women's participation in decision-making on land-use development projects. As mentioned in Section 2.4. These two project sites are different because two separate foreign investors are involved in developing and managing the projects using different systems of oil palm production as illustrated in Table 5. The researcher was unable to access project report documentation from stakeholders in order to describe in detail the aim and purposes, various establishment phases, and anticipated results from the integrated a development projects. Most results are based on what was gathered through interviews and observations as explained in section 4.8 (Constraints) with a little information extracted from reports downloaded from some common PNG sites that discuss these issues.

Table 5 shows the nature of the two different oil palm production systems in the areas under study.

Table 5: Oil palm production systems and areas covered

Project	Production System	Production Stage	Land Area Under Project (ha)	Location
Site One	Joint Venture (JV) schemes	Nursery to field planting (2 years)	42,000 ha for agricultural development 31,000 allocated for oil palm projects	Covers 3 LLGs
Site Two	Nucleus estate – smallholder schemes	Harvesting age (3- 4 years)	150,000 ha of forest area under Timber Authority 4,000 ha planted with oil palm	Covers 2 LLGs

Sources: Extracted from Tzen Niugini Limited and Wide Bay Investments Limited (2005) & Rimbunan Hijau (PNG) Limited website (April, 2014)

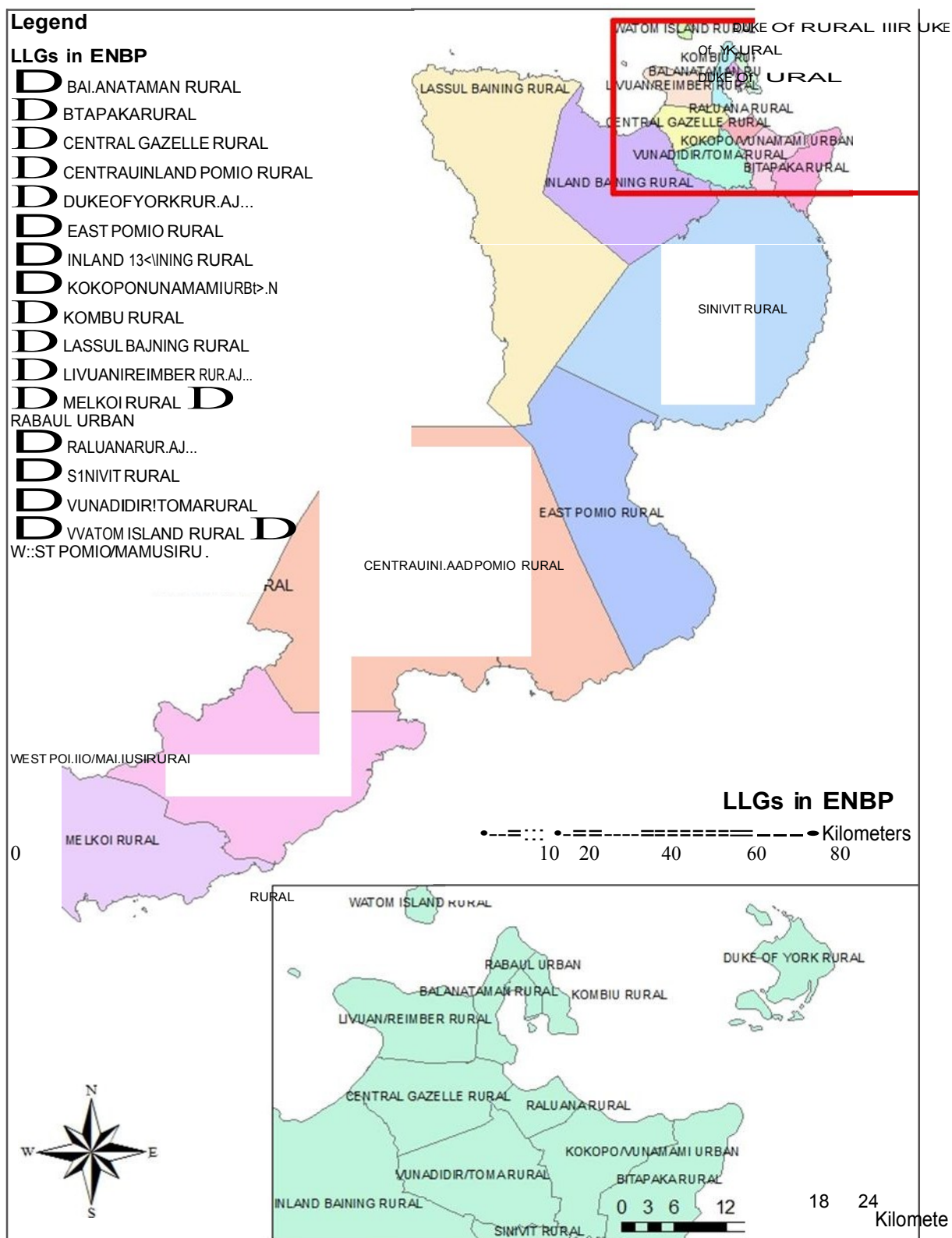


Figure 21: Map of Local Level Government Boundaries of Pomio District {Source: Division of Lands & Physical Planning, ENBP, 2013}

5.2.1 Project Site One

As Figure 21 shows, Project Site One covers Melkoi, West Pomio Mamusi and some areas of Central Inland Pomio Local Level Governments (LLGs). For this study, the researcher focused only on oil palm project areas in West Pomio Mamusi Rural LLG. West Pomio Mamusi LLG has thirty four wards, 2,214 households and a total population of 11,020 (National Statistics of PNG, 2012). The development projects cover four concession areas in these wards. The four concession areas consist of Pomata, Nakiura, Ralopal and Unung tribes and with each comprising the many sub-clans. All the four clan groups have incorporated into separated ILGs but all operate under the MEMALO Integrated Project name. The MEMALO Integrated Project comprises the four main landowner companies as mentioned above. It acts as a middleman by assisting in the documentation, negotiation and initiation of the development projects with the Rimbunan Hijau (RH) subsidiary companies. MEMALO oversees the affairs of the projects on behalf of the Sub-Landowner Companies with close consultation with the investors which are the RHPNG Limited subsidiary companies as illustrated in Figure 22. RHPNG Limited has contracted two subsidiary companies to implement the projects. These are Niugini Lumber Limited, which is contracted to do road clearance and logging, and Sina Tasa Limited which is engaged in oil palm planting. Both projects are managed as the Sigite Mukus Integrated Rural Development Project (SMIRD) of Pomio as reported in the RH Group Newsletter (2011).

Limited information regarding the channels of communication and the administrative functions between MEMALO and the Sub-Landowner Companies was available. This was because most of the potential participants were not available during the appointed days for interviews. Most of the Board of Directors (BOD) and Committees were away in Kokopo and Rabaul towns for meetings or were attending court hearings relating to land disputes with neighbouring tribes about this project. In addition, RHPNG limited company staff were not

able to assist with information. This was due to the Company’s past experiences with Non-Governmental Organisations and some locals who were against logging. It appeared suspicious of any researchers. It had been accused of deforestation in the area prior to the introduction of oil palm projects.

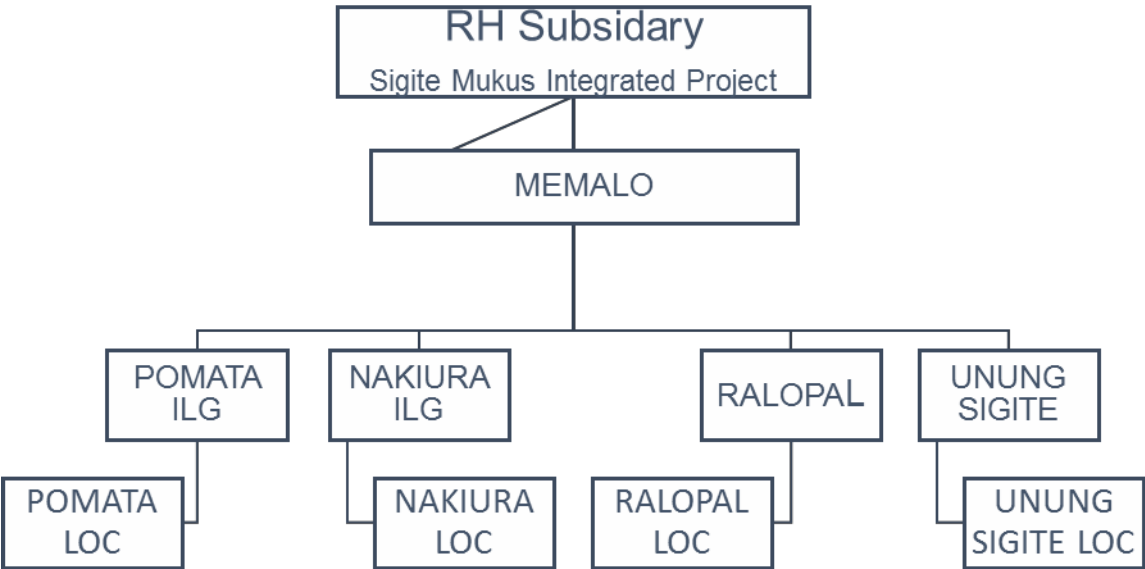


Figure 22: Organisational structure of Sigite Mukus Integrated Rural Development Project

The oil palm project is operated under a Joint Venture (JV) scheme, where customary land is leased to the private company in return for land rentals and dividends. Under each Incorporated Land Group, there exists sub-clans which are also part of the Landowner Company. Currently, there was no clear indication of how the locals will be compensated when oil palm fruits are milled and the oil is sold. Most of the interviewees were not able to give any clear response when asked regarding compensation for the locals. However, during a conversation with a former government officer A, he provided a brief explanation on how land rentals are received by the locals for the lease of their customary land, while the project is in the establishment phase (see Box 1).

Box 1: Conversation with (former) government officer A

“Currently, land rentals are paid to all clans that have their land under the lease agreement. All are paid the same percentage or amount regardless of whether the land is large or small. In this plantation scheme, the investors manage all operations and decides what to do with land for the next 90 years or so. There will be less land available to meet the growing population and local demands for forest product will certainly increase soon”.

For example, there are about eighteen ILGs that make up the POMATA Landowner Company. Therefore, the number of ILGs in each Landowner Company varies according to the number of clans in a particular land area. When land rentals are received, they are distributed among the eighteen ILGs, then down to the sub-clans, and then to family groups. Due to time limitations, interviews were concentrated in only four wards from among the eighteen ILGs under the POMATA Landowner Company. From the four wards, a single village was visited to meet the targeted participants. Villages in project Site One are coded as villages 1 to 4 throughout this chapter. For interviews, a car was used to travel from one village to the next as most villages are scattered along the coast. There is a road network connecting through all the villages along the coast and further up to high altitudes, where the oil palm plantation is being established. Sometimes outboard motor boats are used for transportation of goods and people from the villages and campsites to the Palmalmal District Centre. Palmalmal District Centre is the main government station that manages all the administrative procedures of the five municipalities in the Pomio district

5.2.2 Project Site Two

Project Site Two covers East Pomio and Sinivit LLG (Figure 21) under the Iii-Wawas Integrated Rural Development Project. For this study, only areas in East Pomio LLG were visited. There are thirteen wards, with 1,294 households and a population of 5,450 people in the East Pomio Local Level Government (National Statistics of PNG, 2012). There is an integration of cocoa (*Cocos nucifera*) and oil palm establishment under the different ILGs.

The first oil palm block was established on State land under the Joint Venture scheme while the second project was planted on traditional land under the nucleus estate-smallholder scheme, which the locals described as a Village-based Oil Palm (VOP) arrangement. The locals claim it as a VOP, because the developer has promised to return their land with oil palms after recouping all its establishment costs. The developer is assisting the locals with the initial establishment of the oil palm project because of the large expenses involved which the locals could not afford, unassisted.

This study was based in four villages in the four wards within the oil palm nucleus estate and from the cocoa projects. For this study, four villages were selected and interviews were carried out with participants who were available at that time. The four villages were coded as villages 5 to 8 when quoting participants from the interviews. The oil palm and cocoa projects were developed under the Kamlang Lote Resource Investment Limited Landowner Company, which was one of the 12 timber authority projects for the Agriculture Clearance in the Ilii-Wawas Integrated Project. The study focused on the wards under the Tomoip tribe. Prior to the current Landowner Company, there was a single incorporated land group called the Lote Kamlang Incorporated Land Group (LKILG) that represented the three major clans. The LKILG has now restructured to create three separate ILGs for each of the three clans as illustrated in Figure 23.

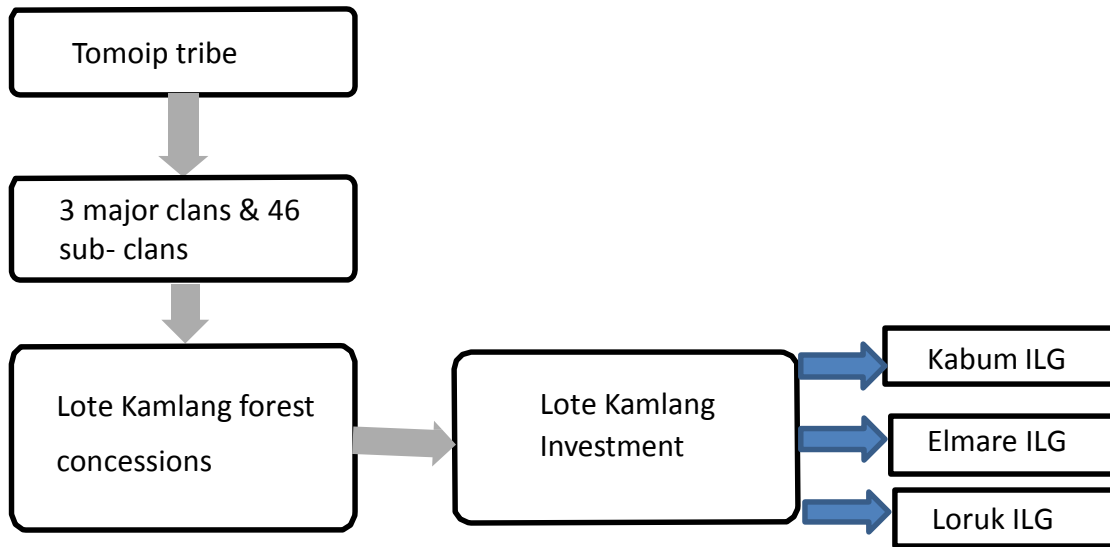


Figure 23: Organisational structure of the Lote Kamlang Landowner Company

The restructure was done because each of the ILGs ventured into two different agricultural crops after logging; that is, cocoa and oil palm. A cocoa project was established on the deforested land using the nucleus system of production whereby the landowner company provided planting material and equipment and will manage the project until the end of the first production year, from harvesting to marketing. At the end of the production year, the cocoa blocks will be returned to the clan members to manage, while the Landowner Company will assist with the marketing of the product. Each family in the clan was allocated a hectare that will become a source of income for them as logging ceases. The landowner company has proposed to plant 200 hectares and so far has planted over 100 hectares. The other two ILGs have ventured into a nucleus estate-small holder oil palm project in which the investor company and the business groups of the ILGs are working as joint ventures. The developer is using its own starting capital to plant the palms and will manage the project until fruit production is complete; that is when the palms start to fruit and the fruit is milled for oil extraction. This arrangement was made on the understanding that all the investor's expenses will be recouped when the oil is exported. At the moment, the ILGs are receiving land rentals for the life span of the project. Most of the rentals are from those land areas at the log points and where the campsites are built and occupied by the developer. A log point

is a temporary holding area for logs before batches are loaded for shipment as shown in Figure 24.



Figure 24: A typical log point and campsite in Study Site One

The locals indicated they were not sure of what benefits are due to them and how they will be paid, when asked what the benefit agreement is between the investor and the locals, for when the oil palm fruit is harvested and milled. Since most of the participants were not aware of the agreements, little useful feedback was obtained by the researcher. The few responses recorded are presented in Box 2 below. It was observed and recorded in interviews that most of the villagers (youth, men and women) were employed in the oil palm projects earning wages to meet their basic livelihood needs. However, some locals were reluctant to work on the projects because they claimed that it was more laborious compared to their day-to-day level of work on their cocoa or coconut smallholder blocks. As Box 2 indicates, local communities seem to have little understanding of the contractual arrangements, and therefore little knowledge of any direct benefits to them.

Box 2: Benefit agreement after oil palm sales**Representative C of Tzen Company**

“It is different from logging payments but not too sure of what the arrangement is like at present. Currently, land rental is paid to the landowners until lifespan of the project”

Village leader from village 6

“I only heard there are rental payments on the lease under oil palm establishment but not too sure on how much will be paid to the locals when oil palm is milled. Land rentals are under the Forest Management Agreement so I think a new agreement is needed for the oil palm project”.

Village leader from village 7

“I do not know how much is paid for land rentals but heard that a monthly rent is paid to ILGs that the log point and campsites are located. From my point of view, when oil palm is milled and oil sold, it will be the ILG chairmen and the developer who will benefit as they signed on the lease while clan members will not benefit as they did not put their signature on the lease document”.

5.3 Differences between the two Project Sites

Overall, the two project sites are similar with only two notable differences. A major similarity is the land-use lease agreements that were used to enable the developments. The development projects utilise the SABL legal framework under the Land Act 1996, to unlock customary land areas for large scale agricultural activities as stated by Langisan (2013) in the MEMALO Integrated 3rd Quarter Report.

The first notable difference is the establishment of oil palm projects under the two different systems of production. In project Site One, the Joint Venture scheme known to the locals as the “plantation scheme” is used, while project Site Two the nucleus estate- smallholder (village oil palm) scheme is used, as shown above in Table 5.2. The four landowner companies work in Joint Venture with RHPNG Limited. These four companies represent the four forest concession areas and each have separate Board of Directors (BOD) and committees to manage their operations on behalf of the clan members. The starting capital and costs are all

met by the investor. Project Site Two has two integrated projects of cocoa and oil palm but is focused on the oil palm project. In this study site, there are three major clans as described in Section 5.2.2. Two clans have ventured into oil palm. The initial costs in the establishment phase; land clearance, nursery, field lining, transplanting and managing until the fruit is producing, are all met by the developer - Tzen Limited. It is understood that after five to six years from the first fruit harvest, it will be handed over to the locals to manage while the investor will be the main buyer of the Fresh Fruit Bunches (FFB). In contrast, the cocoa project is funded and managed by the ILG committees using the levies received from the log harvests. In the cocoa project, the clan members provide unpaid labour whereas in the oil palm projects, labourers are employed and thus paid to work on the blocks though they are clan members. Landowners in project Site Two kept some forest land for gardening and for collecting forest products for local needs, unlike the landowners in project Site One. The second difference was the location of the study areas in relation to accessibility to basic services like transportation, communication and banking.

5.3.1 Access to transportation and communication services

Project Site One is located within the headquarters district of the Pomio District Administration. It has a greater advantage over Project Site Two in terms of accessibility to regular shipping and air transport as a result of oil palm development aiding these infrastructural developments. It has an airstrip and port infrastructure that provides weekly passenger and freight trips for both locals and the investors. This has provided a constant supply of store items to supplement the garden staples as well as provision of other basic needs. The regular shipping services have also assisted villagers in the transportation of garden produce and smallholder cocoa and copra growers to sell their produce in Rabaul and Kokopo compared to before the developments when irregular ship transport was a major constraint for them. This is shown in Figure 25 and Figure 26 as a ship unloads goods and

passengers in Matong village.



Figure 25: Villagers wait as a ship brings in passengers and cargo on the weekly trip



Figure 26: A ship unloading cargo onto the port

Project area site one has clear telecommunication coverage within the vicinity of the district station headquarters along with several nearby villages. This has made communication more efficient and affordable for locals with the outside world. The district station headquarters also

has a rural banking service provided for the locals and investors, which makes cash transactions easier and quicker. This is a direct benefit from the oil palm projects, as workers are required to have bank accounts for wage payments. This has also helped locals to open bank accounts to save their incomes for later use and to have more access to credit schemes, compared to the past. Previously, villagers had to travel on outboard motor boats into Rabaul and Kokopo towns to do banking and shopping. Higher risks were taken by traveling 8-9 hours to reach these centres. On the other hand, Project area site two has an irregular supply of store and other items due to a lack of developed sea ports. Outboard motor boats are still being used as the main form of transport and it takes six to seven hours to reach the towns. However, even though the Ilii-Wawas road networks have been built, the people are not able to afford trucks. Currently, the developer's vehicles, machinery and log trucks use the roads to transport field workers from their villages to oil palm blocks daily as shown in Figure 27, as well as transporting logs from the forest down to the log points. On a few occasions, these working trucks help local women transport their food produce to sell at Tol station. Figure 28 shows some women waiting for an opportunity to get transport assistance from passing trucks.

Tol station is situated next to the first oil palm project established on State land under the Ilii-Wawas Integrated Rural Development Project. The palms are at the fruit production stage and the first harvest is expected to happen at the end of 2014. Improved transport has created market opportunities for women from villages 5 to 8 to sell their garden produce at Tol station. Most women sell their garden produce fortnightly as pay day produces a high circulation of cash and therefore a high demand for food from both local and foreign workers there. In return, the money the women earn is spent in the purchase of store items from the trade stores owned by the developers. This indicates that the cash earned by the locals is returned to the developer through this trade exchange. At the end of the day, the women then have to search for any form of available transport to return to their villages. This has often caused

some women to stay home and instead, send their husbands with the market produce, for fear of staying too long because of transportation problems.



Figure 27a & b: Palm workers going home on a tractor stop to help women returning from the gardens



Figure 28: Women waiting with garden produce by the roadside to be transported to the market place (Photos taken at village 8 - December, 2013).

5.3.2 Formal and Informal Institutions

This study has observed that both the traditional and modern systems of governance exist in society. They can be looked at as the formal and informal institutions. The formal institutions are comprised of government agencies, and social and private organisations which are

governed by set regulations to guide their roles and responsibilities. The informal institutions operate as part of the cultural norms of traditional society. The clan leaders, village headmen and elders are a certain group of people who possess or acquire their positions through normal appointments or inheritance rights. This is closely related to landownership and material wealth that one may have, as well as the good qualities that the person may display, such as good leadership abilities, public speaking ability, analytical thinking, and problem solving skills, and having a good reputation with community members as a result of sharing and contributing to customary ceremonies.

5.3.2.1 Formal Institutions

The study sites are under the Pomio District administration, which reports to the East New Britain Provincial Government. Under the district administration, ward councillors represent the people during assembly meetings with the elected Members of Parliament. The ward councillors are elected by the people through normal election processes every five years, just like members of Parliament. The ward councillors act as mediators between the Local Level Government and the people in all the villages in each ward. This maintains dialogue between the government sectors and the service delivery at the local level. In villages visited during the field work, every Monday was set aside as a community day. During a community day, every individual in the village attended to hear the ward councillor and the committees speak. The committees are comprised of individuals in the community who are chosen by the ward councillor or who volunteer to oversee a government service sector. Such sectors are health, law and order, education, women and youth, and the economic sectors of agriculture, business, forestry and fisheries. At the meetings, the ward councillor and the committee representatives give updates of what is happening in each sector in line with Local Level Government priority areas of service delivery and developments. The people put forward their needs from the community level through to the ward councillors and committees, then it is

presented to the concerned government sectors. For example, most government community projects eventuate from the ward development plans submitted by the ward councillors in line with the basic needs of the villagers in their wards. **Error! Reference source not found.** shows the relationships and their communication flows.

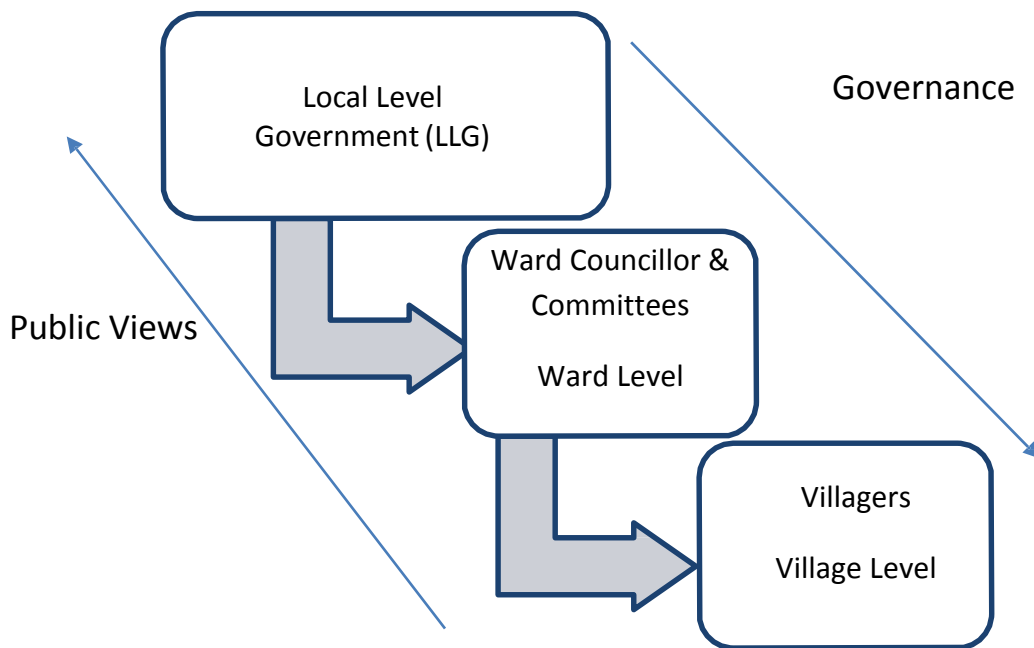


Figure 29: Flow chart shows channel of communication at different levels of governance

During these community day meetings, other community issues are discussed, for example issues such as land disputes, law and order problems, and women’s and youth issues. At the meetings, every individual is given the opportunity to speak giving their views as a community member. Boxes 3 and 4 below show the responses of the women spokespersons from village 3 and village 8 from the respective study sites, when they were asked how women participate during the community meeting days. Figure 30 shows women present at a community meeting held by the ward councillor and the ward committees.

Box 3: Spokesperson no. 8 from Village 3

“Women and female youths are allowed to speak and raise their concerns/views on any social issues affecting them in the communities. Sometimes, the elder or women leaders from church or women’s group representative speak on behalf of the women. This is the same when it comes to land disputes. Women speak up because we are known to be land title holders in our society. Therefore, we feel that we have rights to put forward our ideas/views”.

Box 4: Spokesperson no. 28 from Village 8

“During community meeting days, women attend to raise their concerns on issues affecting them. Any female is given the opportunity to speak of her concerns. Sometime, maybe one or three speak on behalf of all the woman. We (women) feel that we have the right to express our views on these projects because it will affect our children’s future. Our forest resources will be gone, water sources are destroyed, and gardening, hunting and fishing will be taken up oil palm planting”.



Figure 30: Women attending a community day meeting at village 1 (Photo taken during field work- November, 2013)

5.3.2.2 Informal institutions

Traditional society is based on the matrilineal system where the clan is the cultural ethnic entity that consists of individual kinships (Liu, 2010). In traditional or informal institutions, clan existence in all villages is marked by the matrilineal men's house. Though the clan lineage is matrilineal, the clan leaders are always male. The clan leaders or village headmen are responsible for identifying landmarks, sacred sites or objects and sites associating the clan to land and reefs. A clan leader is selected for qualities such as the ability to conduct feasts, to possess and distribute wealth, such as pigs, traditional shell money, and land and fruit trees. Clan leaders are tasked to cause mass actions but only by establishing external and renowned special relationships of reciprocity with the other clans (Liu, 2010). Clan leaders are also knowledgeable about legends and traditional ways of life and display responsibilities for the wellbeing of their clan. This was supported from interview feedback from a village leader as shown in Box 5 below.

Box 5: Village leader from village 1

"Our influence in the community is increased through the leaders and elders' ability to possess and distribute wealth, this helps to build up our wider network for ourselves and our clan members within and outside of our communities".

Their kinship relationships are held intact through participation and observation of their cultural values in the communities. These clan leaders are supported by their mothers, sisters and wives who work hard to raise pigs, cultivate land, plant and manage traditional valued staple root crops such as greater yam (*Dioscorea alata*), Miam or lesser yam (*Dioscorea esculenta*), Taro (*Amorphophallus* spp.) and Mis (traditional shell money). These are the principal items used in feasting and reciprocal exchange. To the locals, these items display or hold wealth, prestige and authority in their society. Women emphasised throughout the interviews that an elder woman also has a high social status in the community like village

leaders or elders. Elder women are also knowledgeable about clan history and land marks and hold the authority to distribute land among the daughters, sons and clan members.

The Informal institutions do not have any governing rules that guide the people. It is the cultural norms and principles of life that bind the people together. The core of the informal institutions lies in the kinship ties that exist among the locals and the environment in which they live.

5.4 Livelihood and Roles of Men and Women

This section discusses the nature of the general livelihoods observed and noted during the course of study in the two sites, especially in the eight villages that were visited. The various roles played by men and women in the household as well as the community to sustain their livelihoods are then discussed.

5.4.1 Livelihoods

People in Pomio live by traditional gardening, fishing, hunting and collecting edible plants from the forest. The forest also provides building materials for shelter, herbal plants, firewood, and alternative sources of protein from the wild animals. Other local livestock breeds such as pigs and chickens are domesticated for consumption, marketing and most importantly, for cultural purposes. Liu (2010), states that culture is an integral part of traditional livelihood systems. Cultural practices include various ceremonial mortuary feasts, rituals, songs, dance and performance, land tenure transfer, and inter and intra-household relationships. Normally, the feasts are marked by dancing and the sharing of food with the community members, where men, women and children participate in one way or another. Their involvement in the community demonstrates the social importance of ceremonial events, which are underpinned by ceremonial exchanges (Liu, 2010). The following responses shown in Boxes 6 and 7, were gathered from an elder woman and a village elder when questioned about their way of life prior to the development projects.

Box 6: Elder woman no. 13 from village 3

“ Prior to the arrival of the foreigners, our traditional way of life was based on gardening, fishing, raising pigs, hunting and ceremonial mortuary feasts and rituals such as circumcising of young males. These activities are associated within our clan members and our external relationships with other clan members. This promoted understanding and respect for each other, where we lived in peace and harmony with the nature. We had abundance and enjoyed this simple way of living”.

Box 7: Village elder & leader from village 7 & 8

“Our way of living was much better compared to our current stage. We use to have abundance of everything to maintain our lives through fishing, bush products, pigs & food.....Most of our wild food source is slowly decreasing”.

“.....We fished, hunted for protein, and collected building materials, edible plants, nuts, and fruits from the bush. We had cocoa & copra to earn little cash, helped each other’s family needs to social obligations in the community. We lived a more peaceful and harmonious life with everyone in the tribe”.

Today, the livelihoods of the people comprise both the cash economy and subsistence farming. Cash is earned from the sale of garden produce, livestock, agricultural cash crops (copra and cocoa), and royalties and wages from employment offered by the oil palm projects. The income earned is used to pay for basic services like health and education fees, and needs such as clothing, store items, the purchase of building materials for semi-permanent houses, church activities and for customary obligations such as weddings (bride price), funeral feasts and small business activities. Typically, business activities include small village trade stores, fuel depots and semi-commercial poultry projects. The cash economy has improved the livelihoods of many families in the community as described by responses from study site One and shown in Boxes 8 and 9.

BOX 8: Women elder no. 14 from village 3

“We are content with what we get and produce from our land resources. We earn income from our surplus garden produce (sales) and are rich. We have money to buy good clothes for our children and send them to school, afford store items/food to supplement our staple foods”.

BOX 9: Spokesperson no.9 from village 3

“My husband works as driver in with the Oil Palm Company now. The income he earns helps to meet the families’ basic needs. We also help our extended family through payment of school and medical fees when the need arises. Sometimes, it’s a member from the clan or a nearby village. This assistance is later returned to my family. It can be in the form of kind, cash, and the best garden produce, best catch from fishing and large portion of pork from customary feasts”.

5.4.2 Roles of women in the community

In both case study areas, women tend to play similar roles in the communities. Women play a significant role as they have female inheritance rights over the land. Their other roles include gardening and raising livestock, household chores, and motherly chores such as child bearing and caring. They also do marketing of food crops and assist in cocoa and copra family blocks. All women interviewed said that they look for food on a daily basis to ensure the food security of the family. Food is harvested from the garden and gathered from the forest, for example wild fruits, nuts, edible plants, grubs, wild birds eggs, and fish, crab, prawns and shells from the river as well as the sea. They also collect firewood for cooking and lighting and collect freshwater for family consumption (Figure 31 & Figure 32 below). Most of the families in the communities involved are extended families so women are not only responsible for taking care of their own families but also their extended family members too. They are also responsible for taking care of the visitors in their homes. It is a woman’s task to take care of the visitors and

make sure they feel welcome. While staying with many families during the field research, and from past experience as an extension worker, it was evident that women prepare the food, provide water for washing and make the beds. In addition, apart from the daily activities, women raise pigs, cultivate land, grow food crops such as yams, taro and mami, and raise funds for customary feasts. In preparation for the feasts, new forest lands are cleared, as the old gardens are regarded as infertile due to continuous cropping. Women do this to maintain their social status as landowners in the tribe so community members will see and acknowledge these roles. This was supported through men's feedback about men recognising women's status in the communities from their active participation for customary feasts as shown below in Boxes 10 and 11.

However, these roles are now changing over time due to changes in land-use activities.

Box 10: Village elder in village 1

"To maintain one's status as a landowner, women take lead in the customary feasts activities. She must raise pigs, work on her own clan land to grow food crops. She also invites or lends an area of land to other women to make gardens. She also has to contribute to feasts hosted by others in the clan. Her contributions can be high yield and best produce from her garden, big fatten pig, cash or traditional shell money (*Mis*)".

Box 11: Village leader from village 7

Women inherit land titles and are seen as landowners....Men recognise women from their task of making gardens, contribute in customary feasts and their involvement in cash earning activities.....In return, the community share with her and her family members their garden produce, livestock, cash. At times special feasts are held to honour her and family for sharing clan land. For instance, when a piece of land is given to a family to grow cash crops or to build houses.



Figure 31: A youth walking to the water source in village 7 (Photo taken in December 2013)



Figure 32: A mother returning from her garden in village 6 (Photo taken in December, 2013)

5.4.3 The Roles of Men in the Community

Men in the respective study areas, play similar roles to women. The first and most important roles are as family heads in the households, followed by other responsibilities in the village.

Most village headmen were elders who were knowledgeable about the culture and history of their clan and society. This information is imparted to the upcoming leaders orally in the men's

house. As well, the upcoming leaders are advised on how to live in harmony with each other in their communities and with the neighbouring clansmen. The men's roles include forest clearance for gardening, fishing, hunting, building houses, and talking with fellow men in the men's house. In the men's house, men discuss day to day issues affecting their communities, plan for customary feasts, and discuss and make decisions on land matters. The planning and organising of customary feasts and rituals is carried out by men while women prepare goods, food and animals with the help of their clan members as described during an interview session with a woman elder from village 3 in Project Site One (Box 12).

Box 12: Elder women no. 14 from village 3

"Women who are landowners will take lead during rituals (example, circumcising of our male children). Women will bring high number of pigs and invite other women clan members' children for this activity. This is to show other members of the clan our social status. More importantly, we (women landowners) will take a leading role by making gardens, raise certain number of pigs and raise money for the ritual. When we know that we have raised sufficient then we ask our fellow women clan members to join. Throughout all this, men will be providing support, guides and advice on how the ritual will be hosted. At this time, women will display their full social status and become an outstanding figure in their clan".

Village elders' roles were also emphasised by two other participants as quoted in Boxes 13 and 14. In the matrilineal society of Pomio, men are responsible for talking about land issues but landownership is held by women. Men take the lead because they are masculine, strong and are able to fight in order to protect the clan land whereas women are not able or allowed to fight. This is also to protect women from any witch-craft or spell that can be cast upon them in the form of disease, sickness or cause them to be barren. This could lead to a clan becoming extinct if no children are born into the female lineage to carry on the next generation.

BOX 13: Village Elder from village 8 in Site Two

“I advise the young men of our traditional land boundaries and what we share with the neighbouring tribes. Show them landmarks such as coconut palms, rivers, mountains and tell stories as told to us by our grandparents to them. This is done so they live in harmony with the neighbouring clans and respect their land rights as well. Unfortunately, we do not have written records of all this stories. If I don’t do this then my clan will know nothing about our tribes land and its history.

A man’s daily activity is the simple subsistence way of life through fishing, hunting, attend meetings with other men in the men’s house, collect firewood, build houses, canoes and help women do gardening”.

Box 14: Village elder from Village 1 Site One

“Land tenure is under women not men. Men are responsible to talk about land issues. This is because we (males) were advised by our forefathers that women should always be protected. Meaning that females are to be safe guarded from sorcery acts that could be cast upon them. Women are the ones who bear children to keep the generation going so females should be free from any kind of danger that can cause illness or death so that our clan or tribe lineage is protected from becoming extinct.”

5.4.4 Participation of Village Leaders on Land Tenure

In Pomio, men play a vital role when it comes to land tenure. They take the lead in discussions and decision-making. Although the clan lineage is matrilineal, the clan leaders are always male due to their customary beliefs and norms (Section 5.4.3), therefore the men’s house is commonly known as the matrilineal men’s house. The discussions and decision-making on any issues relating to clan land happen in the matrilineal men’s house.

The existence of clans in all the villages are indicated by this house as shown below in Figure 33. The clan leaders or village elders are responsible for identifying landmarks, sacred objects, plants and sites linking the clan to land, reefs, rivers and mountains. They are selected for qualities such as the ability to speak, to host feasts and to possess and distribute

wealth such as pigs, shell money, and land and fruit trees within the clan as well as with neighbouring tribes.



Figure 33: Village leaders conducting a village meeting in front of a men's house at village 1, Study Site One (Photo taken November, 2013)

Clan leaders are also knowledgeable of their histories and traditional ways of life and display responsibility for the wellbeing of their clan members. This status has enabled men to take the lead in decisions about land tenure when outsiders are introduced onto their land for resource extraction and development.

Prior to discussion about land tenure with outsiders, clan members especially those from the female line, have a separate meeting with immediate family members before going to the men's house. During this separate meeting, women elders and mothers have the opportunity to share their opinions with the male family members before the meeting in the men's house. In the men's house, final agreements are reached but when there is a conflict of interest then the female line members return to seek advice from their mothers, sisters and aunties. Male participants from both Project sites claimed that women are consulted in regards to any land related issues from their comments (Boxes 15 & 16) but men always have the last say as final

decisions are reached in the matrilineal men's house.

BOX 15: Village Elder in Village 5 Site Two

"Men do share information about land issues with females. Before going to the men's house, family members discuss with relatives, where women share their views/thoughts but husband is excluded. Decision reached is brought to the men's house for further discussion with other male clan members".

BOX 16: Village Leader from village 4 in Site One

Men and women sit together for meetings but women do not fully participate by giving their views. Sometimes their views are accepted in our meetings. Most times women are just there to give moral support to the males. Both gender including all clan members have to agree to give away land for any activity. If a woman disagrees then her very own bloodline family members will have a separate discussion. However, most often women agrees, as they are considerate of what is best for all the clan members. Sometimes, a female's decisions are respected when she disagrees on matters related to land tenure.

As a result of these cultural practices, men took the lead in making decisions about land leases on the development projects in the sites under study. However, not every male participated equally in decision-making on land-use matters. The inheritance of land follows the female lineage of the clan so women's brothers, uncles and male cousins discuss the land issues, while those males who are regarded as users (husbands from outside the clan) will adhere to the decisions of these men. This is the same when it comes to the formation of Incorporated Land Groups in each clan or tribe. The same principle is applied in the distribution of income received from royalties and land rentals. Those family members who are known to have inheritance rights have more say over those who have user rights. This happens in cases of inter-marriage relatives, cousins and non-clan members who have

migrated to settle with another clan. Boxes 17 and 18 below illustrate what was captured from participants about the women's husbands and male family members.

Box 17: Spokesperson no.22 from village 5

"In our society, women inherit land and hold titles over it. When we marry, our husbands come to live with us and our family on the clan land. Our brothers and uncles go to live with their wives. Often, as sisters and mothers we allow our brothers and uncles to live with us on the clan land".

Box 18: Spokesperson no. 4 from Village 1

Those of us who are married into this clan, say little. Our social relationship with our in-laws and fellow clan members is important. We are treated well and accepted as a member into the community. This is because our husbands are landowners (women's brothers). We benefit from resources that the clan owns through our husbands.

When a new member (outsider) or a family member joins the tribe through inter-marriage, it is the responsibility of the female lineage members of the tribe to settle them on a piece of land to live and work on. Inter-marriage is another way of gaining user rights into tribes that have a large area of land. This has been their way of life in sharing the resource - "land" from their ancestors until today. For instance, an elderly women will divide land among her daughters and give a little area for her sons to live off for the few years before marriage. When the son gets married or sometimes after death, land is transferred back to his sisters and nieces.

5.4.5 Participation of Women in Land Tenure Arrangements

Traditionally, Pomio women have been recognised for their inheritance rights over land, which gives them social-status in the communities. This has been an ongoing practice, long

before foreigners came and long before the introduction of the cash economy. For this reason, women worked extra hard to be good role models in the clan, as it depicts the inheritance rights they have. Boxes 19 and 20 show the response from a spokeswoman when asked about women's landownership rights and their involvement in decision-making.

Box 19: Spokesperson no. 23 from village 6

"Long ago our mothers and grandmothers inherited land title over land which was passed onto us. This has been a practice for many years. Our elders also emphasised that women were responsible for taking care of land. This was instilled in us so we knew that anything to do with land we will always have a role to play, this was to have a say or make decisions on the clan land for any purpose".

Box 20: Spokesperson no.10 from village 3

"In our society, it is the women who hold rights to land. As offspring bearers, we inherit land from our mothers and grandmothers over the years..... When our mothers die they pass on the land titles onto us (females) and not the males. When women continue to have offspring's then the family inheritance rights increases in the clan".

As discussed in section 5.4.4 both genders have meetings together on issues related to the land then the final decision is reached in the men's house. However, this is no longer the case with the recent land-use developments in the two study project Sites. Most interviewees mentioned that this cultural practice is slowly eroding within the society as a result of the developments such as infrastructural services and oil palm projects emerging in the community.

5.5 Participation of Women in Decision-Making on Land Use

The participation of local women in the current development projects in terms of decision-making over land-use in the study areas appears to have diminished rapidly. This was evident from the feedback gathered from women in the respective study sites as stated in Boxes 21 and 22.

BOX 21: Women's spokesperson no.24 from village 6

Pomio men take lead in making decisions in relation to development where cash is received in return. Prior to development, women did participate and we were consulted for their views on any matter regarding land. But this has changed, as a result of the influence of money, women are ignored. Men make decisions for their own interest that is why they have excluded us (women).

BOX 22: Elder woman's response from village 3

Today, women are no longer involved in making decisions or attend meetings for land lease for projects. Only so called men leaders & Board of Directors (BOD) have meetings in the men's house. Although, discussion regarding tribe land, all clan members were called together where women were also present in the meetings. This is not happening anymore. We (women) see that money has influenced this change of behaviours. Though during community meeting days we have raised concerns about the forest land but men do not listen.

As a result of these development projects, women's roles and social status in their communities are quickly eroding. Women are beginning to feel and observe that their social status in decision-making is no longer valued as it was in the past, something which was emphasized throughout the study. Comments are shown in Boxes 23, 24 and 25 below.

Box 23: Village leader from village 8 in Site Two

“When the project came, women never took part in any of the meetings or made decisions on the Forestry Clearance Agreements (FCA) so women from our community were not involved as well as been part of the negotiation process. We never received any royalties and even community service projects. Women’s decisions and rights against these land use changes were not respected. When we (villagers) tried to raise our concerns with some members from the community, police intervene and arrested the people. Mothers especially, have great concern over land and tried talking to us (village leaders & elders) to look into it but the agreement has been signed without everyone’s consents”.

Box 24: Village leader from village 7 in Site Two

Prior to the development projects, men respected female’s views, concerns and decisions. However, not anymore with the current land use changes. Men feel that foreign investors will only negotiate with males. Thus leaving out women as though they are not important. This has come about because of men’s attitude towards money. It has affected their respect towards the traditional values. The introduction of money into the community has changed a lot of things such as the attitude and behaviours of people.

Box 25: Village elder from village 1

“There is a tendency where men tend to look down on women folks and forget about women when it comes to land issues. In any land development, women are left out. Whether it is a decision to use or not to use land by foreign investors has become a common practise today, where women are not involved in the initial stage of these projects”.

It has been noted that since the inception of the logging activities, women’s roles as decision-makers in the clan have been affected. The respect, confidence and worthiness given to them as land inheritors, is eroding. This has undermined the social status of women - in their households, families and in the communities as a whole. Inheritance rights had given women the social status as important partners in decision-making over land. Men are beginning to

view women just as ordinary community members who do not play such a vital role in the co-existence of the communities. They are no longer adhering to cultural values of respecting and recognising women for their inheritance rights. Women are not passive however. Figure 34 shows a woman elder speaking forcefully about issues at a community meeting day. In this way, community members, especially males, know that women still have rights to participate in discussions on issues affecting the community and to contribute in decision-making. As women elders, they know and value their hierarchical status in their community and speak boldly at such public meetings when they disagree on decisions relating to land or social issues.



Figure 34a & b: Women elders talking during a village community day in Project Site One (Photo taken during field work - November, 2013)

5.5.1 Institutional Arrangement for Women's Participation

Under the formal system of governance, women have an association that represents all the women in the five LLGs of the Pomio District. It is called the Pomio Women's Association (PWA). Each of the five municipalities have a women's group that report directly to the PWA. The members of this association are women representatives from each of the wards in each local level government. These women representatives are part of the sectorial ward committee. Normally, the PWA and other independent women's groups are established under

the Community Development Division (CDD) within the Local Level Government administration structure. Currently, the Pomio Women's Association (PWA) is the only recognised and functioning group under the district administration for women. It is a recognised group at the Provincial level as the PWA is one of the sub-groups under the East New Britain Council of Women. The Pomio Women's Association group comprises a representative from each ward and executives are elected to manage the group. The PWA and other independent groups (churches, cooperatives or farmers) act as a medium for women to voice their needs and problems affecting them at the community level. Most of the government divisions such as health, education, fisheries, agriculture or commerce allocate funds and resources through these channels to deliver specific community based projects to help women. These specific projects include basic life skills training such as baking, sewing, basic record keeping of income earned from sales of garden produce, cocoa and copra at the trade stores. Women are assisted in raising poultry and pigs at semi- commercial levels as well as conducting literacy and numeracy programmes for the illiterate members of their communities (see Box 26 below). Health awareness programmes, like the Healthy Island Concept, have been introduced into the villages through these women's groups. The Healthy Island Concept is a programme carried out to educate villagers to practice a healthy lifestyle through activities like raising pigs in enclosed areas, digging pits to manage waste, and keeping homes clean to prevent common sicknesses and diseases in the community.

Box 26: Spokesperson no.11 from village 3

"We use to have the Women's group that engages women in basic life skills trainings in areas such as sewing, cooking, baking and how to keep records of our incomes. It is funded by LLG. Unfortunately, funding ceased and all the group activities on training ceased too".

This formal institution caters for women's needs for services at the community and district levels. However, it is different from the cultural or informal institution of the customary organization of communities and clans. Village headmen, elders and women leaders or elders acquire their relational power and status through family descendants within the clan, which are ascribed roles. The ability to speak, cultivate a large land area in preparation for feasts and raise many pigs adds social wealth to them. In this manner, society members show respect and adhere to their decisions. The Pomio Women's Association president explained the changes in society, as shown in Box 27

Box 27: Pomio Women's Association President

"Traditionally, we respected each other in our communities through our way of life, we (women) were also given the respect because of our social status as having inheritance rights over land. Today, the government structure of governance also recognises women's needs at the community level through this association. But the recent introduction of oil palm projects seem to over throw women's decision making powers in our society and both systems of governance are failing to address women's concerns".

Most women stated that they were not consulted over land-use changes and that local male leaders and the educated elite did not inform the women or many of the community members of the development projects, especially the clearances for roads and oil palm establishment. The projects came as a surprise to most women because the initial agreements were focused on timber harvesting. This was clearly pointed out from participants' comments from the respective project sites, as shown in Boxes 28 and 29.

Box 28: Village elder's response from village 4

"Yes, women do attend community meetings but men take lead in making decisions because most times women do not fully understand what will happen under the land lease projects. Although, women have rights over land, men dominate discussion and decisions. Therefore, women adhere to decisions made by men on these projects. I suggest that women should be given the same opportunity as males to participate in decision making".

Box 29: Spokesperson no.12 from village 3

"Women are allowed to speak about their concerns on social issues affecting them as well as matters relating to land as women are look upon as land inheritors. But when our concerns are put forward, men seem not to women's views into consideration. As a result, during the formation of ILGs, no women was voted or appointed as a women's representative and also men never asked women for their opinions on the issue. As a women leader, I have reminded the men not to exclude women in any meetings and negotiations process so that we are part and parcel of these projects because of our culture where every female in every clan have a right to know and make decisions".

Women have the sense of being excluded from both decision making and the social sphere, and this weakens their social status. Their social status has been deteriorating over time beginning with the introduction of the development projects. The developments are causing women to lose their important social roles in the subsistence economy as the cash economy takes over. Thus, women's self-esteem and identity have been affected. Consequently, women have become less interested in participating in community activities and are taking less active roles in church activities and customary feasts. They feel less important, as men are tending to regard them as household helpers, as commented by a participant (Box 30).

Box 30: Spokesperson no.22 from village 5

“Maybe because we still hold onto our cultural values of having great respect over males as family heads. This has prevented women from standing up to fight for our rights to participate in decision making on our resources, which has given men the opportunity to make all decisions. They still see that women’s responsibilities only lie in being wives to raise families, livestock, do household chores and submit under them but in other aspects of lives like taking part in making decisions about development project we are regarded as less important”

5.6 Barriers to participation in development projects

There are a number of factors that hinder women from participation at the community and district level. This section outlines some of the factors identified during the study from the respective project areas.

5.6.1 Eroding of traditional values – “Rules Changing”

The traditional cultural values that have governed the way of life for decades appear to be eroding in most rural communities. This was evident where the study was conducted. Most interviewees responded that development has brought both benefits and costs. One of the downsides of development is the weakening of the cultural beliefs and norms that were part of the people’s way of life. Harmonious human relationships with one another, particularly respect for and submission to traditional authorities such as the elders and village headmen or leaders are being ignored by some people. It was once believed that one was obliged to submit to what the elders said, as they spoke with wisdom. Bonds between tribes through respect, honesty and trust in land boundaries, are no longer as strong as a result of land disputes because of the development projects. Thus, community respect and understanding in the use of common resources with other clans has declined, for instance, the sharing of forestry

resources with neighbouring tribes along land boundaries. Women have been regarded as generation carriers and so had a right to participate on what happened to the land. They were looked upon with respect by their male counterparts. The following is a woman elder's response on a question regarding her experiences of involvement in decision-making prior to the development projects, as shown in Box 31 below.

Box 31: Elder women from village 4

"Men would sit with mothers and discuss about the clan land. Women will express their thoughts during the discussion and man will listen. Males consulted the views of the mothers before the meetings in the men's house. Today, men make decisions without proper consultation with women, elders and village headman in the dealings of land lease such as the signing of documents. I as an elder woman of my clan was never consulted for opinions or advice which used to be case long ago".

The men's house has traditionally played a significant role in maintaining a clan's strength and wealth, and status with other tribes. It was respected as a place of secrecy where males gained their manhood and shared tales and knowledge of their clan origin with the young men. The men discussed how to defend land rights through talks or tribal fights and they planned the seasonal customary feasts. However, the tradition of conducting meetings in the men's house is dying out as currently appointed leaders and ILG executive officers meet away from the men's house, community and people. Most meetings held over land-lease negotiations and signings were held in hotels in the major towns like Kokopo and sometimes in Port Moresby, the capital city of PNG. It was reported that these were meetings held in secret, without the approval of the community. Consequently, the men's house has been de-valued as an important decision- making forum in their society. Upcoming leaders and male youths are slowly doing away with historical stories and sacred sites as evidence of landmarks. As a result, most clans and sub-clans in Project Site One and two clans in Project Site Two are

in land disputes that have affected the progress of the oil palm project, as stated in Box 32.

Box 32: Village leader & ILG Chairman from village 4

In the initial stages of the project, we (community/ward) had a lot of problems. The locals were in land dispute with each other and in disagreement with the logging company on land boundaries. As a village leader I tried in vain to keep all the problems at minimal level. I have become a mediator for the people in the community and the developer. From experience, youths are difficult to manage since most of their time is spent away from the men's house. Their absence from the men's house reflects on their personal characters. The insights and wisdom of a happy life is shared by the old man to the young males in this house. But now a days many male youths have been side tracked by the influence of oil palm projects in the ward. This has contributed towards the change in men's attitude and behaviours in respecting women's traditional values.

5.6.2 Education and language barriers

Most rural women are illiterate and limited by language barriers when it comes to participation. A handful are able to read, write and speak tok pidgin while the majority communicate using their native language. This has been a major drawback to women freely participating in decision-making about land-use. Most of the words and concepts used to explain terms and conditions of leases are written in English and sometimes in tok pidgin.

This has disadvantaged women and has allowed males to play a leading role. Women's lower education levels and the language barrier of most women in the villages has allowed men to take advantage by limiting women's involvement at higher levels, in dealings with developers through open discussion and the signing of consent forms. This has caused women to shy away and participate less. Also, women have a fear of being mocked and laughed at because of their less fluent use of tok pidgin and lack of English. It was also noted that most women interviewees were too shy to sign the research consent form because of their low level of education and their poor and untidy hand writing. Furthermore, about three quarters of the

women interviewed complained that women representatives were not appointed for each ILG and Landowner Company. Although the 16 step process in the formation of an ILG requires a women representative on the ILG committee, no women were appointed to any ILGs at the initial stages. However, some ILGs and landowner companies in both study areas have discussed the possibility of including women on their committees and Boards of Directors, after receiving continuous requests and complaints from community women's group representatives. Overall, only two women representatives were confirmed to be on ILG committees but with only minimal involvement as confirmed by a participant, as shown in Box 33.

Box 33: Women representative on ILG committee

"Men say that it is only for males and not appropriate for women. Most meetings held by ILGs committees' exclude women as there is no representative on our behalf. Although, I was nominated to represent women on the committee, I attend meetings that are held here in the villages but not those held in the town and other centres. This is because, I cannot leave my family and stay away for more than a week because of my duties at home. During meetings, I say little because I'm not fluent with tok pidgin. Sometimes, I do not understand what is written on the paper so I just sit and observe. I strongly believe that if there are woman representative in every ILG, there is a great change of equal distribution of the project benefits. On the other hand, the developers did not emphasize participation of women but more interested in talking with males therefore most women feel that it's a man to man talk".

5.6.3 Cultural Norms Limit Women's Participation

The cultural practice of respecting males as the family heads and with authority over women is another factor that hinders women from participating. As mothers and wives they are obliged to submit to the family head, which is also a very important aspect of maintaining their interpersonal responsibilities in the home and community. Women have to respect and be submissive to their husbands. In this manner the husbands will be looked upon by the

community members with the respect that is associated with cultural norms.

The women also receive compliments and praise for their commitment to their husbands. Men as heads are expected to attend meetings and participate in discussions and decisions. Men do not believe that women can do this and that it is not necessary to involve women in these activities. Most often women attend the meetings and listen to what the men have to say and agree to it. On a few occasions when the man attends the meetings, he asks his wife to stay behind and do household tasks or gardening activities. This was noted by a spokeswoman and is shown in Box 34.

Box 34: Women's spokesperson from village 3 in Site One

"I am a women leader who leads out in activities for our women especially women's groups in the village and sometimes speak on behalf of women in public meetings. Sometimes, I do not attend special meetings like land dispute settlement because only men go to attend and also I'm advised by my brothers to stay back for security reasons. At times because of family commitment (look after children & gather food) only my husband goes and later relay to me what was discussed at the meeting".

Women are also very occupied with daily chores such as collecting firewood, gathering food, fetching water, feeding livestock and taking care of children and older family members at home. This requires more time as most gardens and forest resources are now located some distance away from the main villages. For instance, it takes about 1 hour and 30 minutes or more to walk to gardens and then collect firewood for cooking and lighting for the night (Figure 35).



Figure 35: Walking back from the garden is now a considerable distance from the village (Photo taken in village 7 in Site Two)

In addition, when a women does not commit herself to her normal chores, she loses her social status in the community. This suggests that attending meetings about land-lease projects or doing work outside the home does not benefit women but is an additional burden. When women do a good job in the household and in the gardens, they are accepted by her family and community. It has been the cultural norm to allow men to take the lead in every activity due to their social position in the homes and the community. The ongoing practice of this cultural norm of submissiveness to males has been an obstacle for women to openly express their opinions, interests and concerns on agro-forestry projects in their communities. The existing ILGs and the Landowner Companies are directly breaching the Land Groups Incorporation Amendment Act of 2009, Section 5, by excluding women representatives from the Committees. The ILG application form requires two women community members as part of the committee. This was confirmed by a clan women representative during the interview in village 2 in Project Site One (see Box 35).

Box 35: Landowner woman from village 1

“One day when I was at home, I was approached by the village leaders and a government officer with the ILGs application. I was asked to write my name down and sign on the application form. No clear explanation was given to me on why I was asked to give my consent. The government officer explained that they wanted to identify the rightful landowner before logging can take place and royalties would be paid out to everyone in the clan. I signed without knowing the purpose and reason”.

Later, it was revealed that the landowner woman had signed to allow both logging and clearance for roads on the clan land. She regretted giving her consent but she had not known what was contained in the agreement and no one had tried to read or translate to her, what was contained in the document at that time of signing. When asked if she attended meetings with male ILG Committee members she said that she had attended twice but did not attend anymore because she did not understand most of the agenda in the meetings and most times the meetings are held in Kokopo town.

5.7 Overcoming barriers to participation

One purpose of the study was to identify how women in the Pomio District participated in decision-making on land-use changes through rural agricultural development projects. This section identifies some of the areas that women get involved in to overcome the barriers that obstruct them.

5.7.1 Community Activities

The study found that most of the women interviewed attended community activities such as community meeting days, church activities, weddings, mortuary and ritual feasts, as well as making a contribution through cash, pigs and best food products. For these activities, both men and women attend as each has specific roles to play. Their social obligations are recognised and have been accepted as part of their cultural norms since the time of their ancestors. The wedding, mortuary and ritual feasts are observed as an important time for

women to display their social-relational status as landowners. Those women who have inheritance rights over clan land contribute large quantities. They take the lead in the activities and extend invitations to their fellow clan women to support them. This physical participation in the tangible benefits has enabled women to be recognised in their communities as the clan members with the decision-making powers over land-use. Women have the inheritance rights and this has enabled them to have authority over the land. To maintain this custom, women took the lead in these activities. Unfortunately however, the inheritance rights over land-use are simply being ignored to the detriment of the communities.

Taking part in these events motivates people as they see the tangible benefits through food, money, having fun and exchanging shell money which is part of their livelihoods. The participation of women in these community events empowers them in discussions and decisions on issues relating to land, with males. Their contribution towards these activities reinforces the important value of women as mother of the clan land and the producer of the clan generation. Therefore, most women interviewed mentioned that they have to work extra hard in the gardens, raise pigs and sell food to earn income to contribute towards these occasions.

5.7.2 Employment in Oil Palm Projects

During the study, the researcher observed that most of the working age women in the villages have ceased their normal daily activities to provide cheap labour in the new oil palm projects. Most women realise that the main support system of their livelihood, the forest and land resource, has been taken away for oil palm development and no other resources are available to sustain their lives. One woman from village 3 in Project Site 1 was worried about how the oil palm project was affecting the food security in the villages and is quoted in Box 36.

BOX 36: Women spokesperson from village 3

“.....our forest land for food source and gardening has been destroyed by road developments, casing us to experience food shortage and more dependent on introduced food. Not every individual can afford these store items because of the high prices charged on these goods. Only a handful still work in their gardens while most villagers are not able to garden anymore because of less fertile land available to them. I have seen that most families are not able to have 3 meals a day compared to the past. There was abundance of food when the forest was here but not anymore.One of the pulling factor for most of the mothers working in the oil palm projects, is to earn cash to meet the increasing livelihood demands and the changing lifestyle patterns such as supplementing staple garden food with store food items in meals and building semi- permanent houses. Husbands are not fully committed in supporting their wives due to meeting their own social needs. Wives see that the amount of cash given by their husbands is insufficient to meet household needs”.

The forest and land met their daily needs but now it is in another use. There is insufficient land left to grow food crops to feed their families or earn a little income from the sale of the food products. Most women now rely on husbands, fathers and brothers to give them money but it is the men who decide on how much to give. Most women see that the amount given is insufficient to satisfy all family needs. Almost half of the men’s wages is spent on social needs such as alcohol, cigarettes and their contribution towards customary activities. Only half is shared with the extended family. This was expressed repeatedly throughout the interviews from the two project sites, from both women and men (see Box 37). Therefore, women are forced to work to meet their needs. Community members recognise and respect women who share as these values are deeply rooted in PNG society.

Box 37: Spokesperson from village 1 & 6 and village leader from village 4

“.....my husband is a good person & supports our family from his pay. Some husbands are not good, they spend all money on alcohol while mothers struggle to meet family needs as witness in other families.

“Women receive what their husbands give....Sometimes wives are tricked by their husbands by giving them cash but later demand for the money to be given back to them when drunk or upset”.

“Women do not receive any cash from the land rentals or royalties directly. While those male members that work on the project just share what they want with family and hold back the rest. This has cause a lot of female to work on the projects so they too can earn an income to support their families and themselves”.

5.7.3 Women’s Representation in Society

Prior to the introduction of forestry and agricultural projects in Pomio, women’s voices were heard. Today, this is eroding as men become influenced by the flow of cash in the community and have ignored the traditional norms of life. From the research, most women in the study villages claim that men, especially those who play an active role in the ILG committees and those who are Landowner Company executives, seem to neglect the concerns of the women in relation to land matters.

Women representatives are appointed from each ward to be part of the Ward Planning Committees. These women representatives speak on behalf of all the women in the wards. This is to enable women to participate physically, socially and verbally to the planning in the community. It is the only channel of communication available for women to voice their feelings and thoughts, and contribute ideas, under the government system of governance. This basically focuses on the government delivery of services. Despite this, women are not represented in the ILGs and Landowner Company group committees (see Box 38).

BOX 38: Concerned Mother from village 7 in Site Two.

Women or mothers have not heard or seen the project agreement document and have no idea who signed it. The directors and committees must have seen it but maybe in secret. Meetings in relation to this project was never held or even seek women's views on it. Although, we have community meetings every Monday to discuss general issues and nothing on the oil palm projects. These projects are seen as, only for men to talk about and make decisions as if we (females) are not important in the society.

This has resulted in women feeling left out and having no voice in the negotiations on land-leases for the oil palm projects. Women have realised this at the community level and have advocated for women leaders and representatives to represent them in any activity or projects that deal with customary lands. Although the oil palm projects have already begun, women are still advocating for women to be included in the ILGs and the Landowner Companies, to share their views so that there is an equal representation of both genders. Women are more concerned with tangible benefits compared to men, who are interested in cash. About three-quarters of the women interviewed strongly emphasised having women representatives so that their voices are heard during decision-making on leasing their land for further extension of oil palm developments (see Boxes 39 and 40).

Box 39: Feedback from women interviewees from both Sites

“.....most of their meetings have excluded women & there is no equal representative from both men and women. We (women) strongly believe that if there is a women representative then there is a great chance on equal distribution of royalties & rentals paid to the tribe.” “All directors are men so all decisions are done by men, no women is involved. They have disrespected women as being in charge of looking after land.....Women no longer have rights over land as we are not recognised as landowners by having a voice on the lease agreements”.

Box 40: Village leaders from village 4, 5 & 6 from Site Two

“In the past logging projects, men took the lead in distribution of royalties, resulting in great misuse of money where men spend mostly on social needs than family needs. From continuous complaints from women, now some women are in the ILG committees and help out with the distribution of cash. Most male disagree with this change and still look down on women. Only a handful of us (men) are supportive of this change on women being in control of royalties received from recent logging projects”.

“There is no female representative in the ILG committees, Landowner Company BOD and committees. Men are too greedy for wealth, power and recognition.....”

“Male play leading role in the ILGs committees and BOD to sign on behalf of the clan. Recently, there is awareness and talks that women should also participate in signing of documents relating to land leases”.

5.8 Stakeholders in the land development projects

This section outlines the institutions and stakeholders involved in the agro-forestry projects and their roles in the communities at the local level. The major stakeholders involved at the national level are the Provincial Forestry Board, the Department of Lands and Physical Planning, Environment and Conservation, East New Britain Provincial Government, the Department of Primary Industries, and Trade and Commerce. At the local level are the Developers, the Pomio District Administration and the five Local Level Governments, the Landowner Companies and the people. In this study, the focus is on the women at the community level and what the local level government divisions, the Developer and the Landowner Companies are doing to create opportunities for women's participation.

5.8.1 Unclear roles and functions

From this research, it appears that most of the stakeholders at the local level, such as the district officers from Lands, Forestry, Environment and Conservation or Health sectors, developer representatives and ILG chairmen and all committees involved, were not and are not performing their assigned roles and responsibilities. This was pointed out by most of the village headmen and the ward councillors during the interviews. On most occasions, the leaders were not sure who to consult on issues relating to agro-forestry projects in the respective Local Level Governments. For example, the Landowner Companies are mandated to manage the land-lease agreements or the Logging Market Agreement (LMA) on behalf of the people, with the developers. Women representatives and the two ILG village chairmen report that when concerns and complaints are made to the Board of Directors, unsatisfactory feedback is given, as quoted in Box 41 below, from participants. This confirms the reasons why the ILG chairmen and Boards of Directors were not available for interview for this study, despite several appointments being made by the researcher.

It seems that the people who are appointed to these positions are uncertain of their roles or

unsure on the functions of the organization. This is similar to the government divisions at the District Administration level. No clear information is provided to the locals on the various roles of each of the Stakeholders involved in the socio-economic development projects. Thus there is confusion and inadequate information available for the villagers, which leaves them feeling like outsiders in their own land.

Box 41: Village leaders from village 2 & 4 Site One

“.....Villagers did not understand what was happening when working equipment started clearing into the forest. When concerns were raised by the locals about these, no clear answers were offered on the terms and conditions of the agreement either from our landowner company’s directors, government officers or the officers from the developer company. It seems that, there were a lot of misunderstanding, lack of transparency and lies that led to land disputes among clans”.

“No clear indication from government sectors to help or inform the local community of what is happening. There should be clear outlining of what the developer is responsible to bring into the community as its spin-offs and what the local level or provincial is responsible through its service delivery commitments. Most times (we) leaders are not sure who to approach for most of the issues in the wards”.

5.8.2 Lack of Community Awareness and Consultation

During the field work, some potential candidates for the study excluded themselves from been part of the interviewed group because of their fear of giving inaccurate information. They did not have a clear understanding of what the land tenure arrangements were. About one third of the men and women interviewees had a little understanding on the Special Agriculture and Business Leases (SABLs). From the responses gathered from the field work interviews, and through observation at community meetings, it is obvious that there is a huge lack of accurate and factual information for the majority of the people. As a result, most people in the communities were not involved at the very beginning of the projects through to

the formation of the ILGs. For this reason, not everyone in the clans in the project sites benefitted from the logging activities. It was seen as a business project where only those clan members who had inheritance rights were entitled to all the benefits while most missed out, especially on the royalty payments. This was supported by some feedback from the participants and is reported in Boxes 42 and 43 below.

Box 42: Village Leader from village 4

There was awareness on the promotion of Landowner Company, which is the formation of ILGs and land titling. But the locals did not fully understand what was really happening. When questions were asked about these, no precise answers were offered particularly on the terms and conditions on the agreements. It seemed that there was a lot of misunderstanding, lack of transparency and lies leading to land disputes arising in the clans. This came about because of lack of communicating factual information to the villagers from the developer or government.

Box 43: Women spokesperson no.30 from village 8 - Project Site Two

There was no awareness for both the logging and oil palm projects carried out by the government officers and the developers in this ward. It was the Chairman of the Tomoip clan who brought the foreigners into this area. Though we resisted the logging project, nothing much could be done as the deal was already signed. There was hardly no consultation with the villagers from the forestry, DPI, Environment and Lands sectors and even the developers.

Police officers are used to stop us from protesting to cause disruption to the progress of these projects. Most often, we are not sure who to bring our graveness to. Although, it has been reported to the District Administration, the Provincial Planning and Research Department, no action or feedback was received. Currently, there is a court case on these issues with Tomoip clan.

Most of the participants in this study had heard that land was tenured under the Forest Management Agreement (FMA), where locals had transferred their timber or landowner rights to the State and the state had sought credible developers to develop the timber

resources on the customary land (PNGFA, May 2014) in 2007 and 2009 respectively (Section 2.4) in the two areas. Through the Incorporated Land Groups, the timber resources were sub-leased to developers who were interested in harvesting the forests under the Timber Authority Projects (TA), for big timber operations, where landowners were limited by the lack of finance and expertise. In return, the landowners benefited from the royalty payments, from contract activities on different aspects of the project, premium payments, from spin off business activities, as well as infrastructure benefits (PNGFA, May 2014). The major issue faced by villagers was lack of awareness. There was no campaign conducted by the National Forest Services (NFS) outlining the Forest Management Agreement (FMA), which has the 99 year lease on land alienated by the State, about the terms, conditions and the consequences for the long term. Most of the participants from the two project sites commented that the stakeholders involved did not thoroughly explain the consequences for the local people or make sure that all the locals had awareness of what was going on, before implementing the projects in the communities. A woman participant expressed her view from a women's perspective on the land-lease arrangement and claimed that not everyone understood what was going to happen to their land. Her response is shown in Box 44.

Box 44: Women leader from village 1- Project area site one

Majority of the clan members were not fully aware of the land lease for logging. Most people were taken by surprise on the very day of signing the lease at the District Headquarters. The signing of the Lease Agreement was witness by the government officers from the National, Regional and District level and some Locals but never witness the signing of the Sub-Lease Agreement (LOC & Developer).

Prior to the signing of these agreements, no informative awareness was conducted in the villages to seek consent from the locals on these projects. For example, no explicit explanations were given that land was leased for 99 years so after logging, road network will be established and agriculture crops like cocoa, coffee or oil palm will be cultivated to maintain infrastructure to improve and sustain livelihoods. At the same time, customary landowners were not consulted on what cash crop was seen appropriated for them.

This emphasises the essential role that good communication has in any economic and social development (Food and Agriculture Organisation [FAO], World Food Summit, 1996). It asserts that sustainability in agricultural development will be accomplished where advocates use a people-centred approach to development, in which communication is a vital component in the whole process.

5.9 Emerging Effects on Communities from the Development Projects

Participants in this research mentioned the advantages and disadvantages arising as a result of the development projects in the two respective study sites. This section discusses the common issues people are facing, which have been observed since the beginning of the projects and that will affect the people in the long term.

5.9.1 Food shortages

Most women conveyed their experiences of food shortages in their households as a result of limited land available to cultivate for new food gardens. This is because the shifting and cultivation method is still practiced today. Locals garden in a certain location for two to three years then clear new forest land for new gardens. Crop yields have decreased due to

continuous use of the land and the soil is becoming less fertile. Women are tending to store items such as rice, tinned fish and meat, biscuits and frozen protein to supplement the main staple crops which are banana (*Musa* spp.), sweet potato (*Ipomoea batatas*), taro (*Colocasia* spp.), cassava (*Manihot esculenta*), and yam (*Dioscorea* spp.). In addition, the alternative food sources from the forest have been destroyed by logging. The forest provided natural edible plants, nuts and fruits that grew wild and in abundance. Their supply has decreased over this short time. For instance, some traditional drought resistant nut trees like Polynesian chestnut, commonly known as aila in tok pidgin, and breadfruit or kiapiyak, that are used as food sources in dry spells have been cut down during clear felling of logs and road construction. As a result, locals face food shortages during dry seasons when garden crops yield less due to low rainfall. This is the main concern of mothers in all the villages that the researcher visited. About seven out of the seventeen women interviewed commented that wages earned from working for the developer were inadequate for purchasing store goods from the Asian and local shops to last for the two week pay period. These were complaints heard from women who are employed in the oil palm blocks. Since the women work seven days a week, they do not have any days off to tend to their food gardens. Hence they are more dependent on introduced food items.

5.9.2 Land Pressures

The 99 year lease of customary land for the oil palm projects has caused land pressure for gardening and cash cropping for individual households in the communities. As a consequence, land disputes and tribal clashes have been frequent compared with prior to the introduction of the development projects. Locals are contesting for each piece of land and falsely claiming other clan or family land for a share for their young children. This was repeated in most of the feedback from both the men and the women who took part in this study and was a main concern for some participants as shown below in Boxes 45 and 46.

Box 45: A concerned mother from village 4

“As a mother, I’m so worried about my children and grandchildren’s future. I have realised that soon land shortage will be a great issue in the clan. I wonder whether my children will have land to cultivate and settle on. Currently, we are living off on gardens closer to the villages but most inland forests has been cleared for oil palm development. Soon, all the available land will be occupied as a result of the growing population, land will become scarce”.

Box 46: Village leader from Village 3 in Project Site Two

Before developments came into the clan, people enjoyed their lives. Livelihood was supported from little income earned from cocoa and copra. It was sufficient to meet family needs as well as social obligations. There was abundance supply of food from the forest, sea and fresh waters. Everyone lived a peaceful and harmonious life in the community until the investors came. There has been a lot of land disputes and fights against clans. Clearance for oil palm has destroyed food sources and fertile land for gardens. This has resulted in food shortage and land is leased for 99 years so our children will be the victims in the future because of today’s decisions that were made by some self-centred and greedy people.

5.9.3 Social Issues

During the course of the field work it was noted from observation and supported by comments gathered from interviews, that there is an increase in the level of social problems. There are now problems such as abuse of alcohol, drugs, domestic violence, and displays of nuisance behaviour by youths when under the influence of alcohol (see Box 47). For example, mothers, wives and female family members hide away from their immediate male family members for fear of being assaulted or abused with offensive language. Their own homes have become unsafe so they take refuge with other family members. Lately, there has been an increase in the number of divorces. In many marriages now husbands remarry because they have the cash to attract women into marrying them, while some women have left their husbands and

children to marry someone else who has accumulated wealth in cash and non-cash materials from the receipt of royalty payments and income from wages. This has brought shame and disrespect on the community and the clan's men's house.

Box 47: Village leader from village 7 Site Two

Community members are no longer showing respect or listening to village leaders and elders for community activities like cleaning of elementary schools..... Most are working and earning cash to support themselves so they feel that they do not need others to instruct them to do this and that.....they are more self-reliant now. But social problems such as high alcohol consumption, domestic violence and rape cases have increased. There is high number of people coming into the village for job employment so the population is growing. This new people are also bring with them sickness and diseases and their own culture. We leaders are concerned about these but we are not sure which government division to report these issues to help us minimise it.

Furthermore, many young teens having unwanted pregnancies and early marriages has evolved as a result of been influenced by access to media such as television, digital video disks for movies and radios to hear music. Informants indicate that this has corrupted the minds of the youths who have quickly lost sight of the ethical values of self-respect in themselves and respect for their fellow community members (see Box 48). Today, most of the young people spend less time with the old and wise to learn of the great values in life. For example, young males no longer visit the men's house for advice from village elders and leaders. The men's house is being seen as another ordinary house for relaxation and chatting and is sometimes used as a hiding place for the consumption of alcohol. The social principles of life that have been valued as the cultural norms that bring happiness and prosperity are eroding fast due to changes brought by the development projects. In addition, the rise in migration of people to the Pomio district in search of employment opportunities has

contributed to these social issues.

Box 48: Pomio Women's Association President

"Before the project came, all villagers worked together and respected each other. During community meetings our issues affecting the village was discussed and solutions were reached. This is no longer happening today, there is no respect for each other. There are lot of social problems happening in the community, male youths take alcohol every pay day and disturb people with loud music or host village dance and community members especially men and some youth females go to attend. These male youths are no longer going to the men's house but go there to sleep after the party in the night. Husbands argue and fight with wives when drunk and children are affected. I have seen a lot of youth females with fatherless children while some are from males that come to work on the project but when their contract is due, they go back home leaving the mother and child behind. Men are now marrying more wives compared to the past, which was not part of our tradition. All these are affecting our customary values of life, it is so sad to see these happening in the community".

5.9.4 Environmental Effects

The clearance of forest lands has had detrimental effects within the whole eco-system. People's food sources such as plants, animals and water sources have also been destroyed. From this study, the following interviewees' comments (see Box 49 below), describe what has happened to their environment.

Box 49: Feedback from various participants

"Water sources polluted from leaking engine oils and fumes from vehicles". "Destroying of sacred sites, no proper bridges and culverts built over most of our waterways".

"Destruction caused to property such as betelnut, cocoa, copra, fruit trees and sea protein from road clearance which are seen as sources of income for most parents".

"Large quantity of good soil be washed down to the seas during rain seasons since all the big trees are cut that holds the soil firmly together".

"Great amount of debris flow into the rivers and down to the sea killing all the living things in there from all the changes occurring on the land".

Some participants were concerned that many of the water sources, especially ground water will be contaminated when fertilizers are applied to the oil palm crops. This will have a direct effect on the living things in the fresh water and also on the marine life because all the ground water flows out into the sea. As a result, locals will face a lot of health problems from consuming contaminated protein from the rivers and the sea. This concern was voiced by a villager leader and is shown in Box 50.

Box 50: Village leader in village 1 from Site One

“When fertilizers are applied on oil palms, our water and food sources will be contaminated. We also are not sure on how the wastes from the oil palm will be managed, after the milling process. No one either from the government or the developer has come to talk to us about these things”.

Figure 36 and Figure 37 illustrate some of the environmental changes and effects resulting from the development projects.



Figure 36a & b: The river is used for drinking, showering, and laundry by villagers. It is also driven through by trucks (Photos taken in December, 2013).



Figure 37a & b: Food and Cash crops removed during forestry clearance for roads (Photos taken in Millim ward in December, 2013 during fieldwork).

5.9.5 Benefits from Land Use Developments

Most people appear to have benefited from the development projects in the communities studied. People earn regular income from working in the projects and this has enabled them to support their livelihoods. Development has contributed towards improving their living standards compared to the past. From royalty payments, villagers have built iron-roofed houses, purchased outboard motor boats and engaged in local business activities, such as trade stores, fuel depots and semi-commercial poultry projects. About two-thirds of the community members are able to finance their children to school and meet medical fees. Today, many villages have road networks linking them where once they only had walking tracks through the forests. However, the downside of the cash economy is the disruption to the common-sharing within the domestic sphere. This has resulted in individualised lifestyles which many households will find difficult to adapt to in the long term. Figure 38 - Figure 40 illustrate some of the changes that are happening as a result of the development projects.



Figure 38a & b: Forest material houses replaced by modern materials (December, 2013).



Figure 39a & b: Canoe and outboard motor boats are the common means of transport in Pomio District (Photos taken December 2013).



Figure 40: Road networks for logging, now used for oil palm projects (Photo taken in December, 2013)

Chapter 6: Discussion

6.1 Introduction

This chapter addresses the impact of oil palm developments on women in the Pomio district, ENBP. Section 6.2 discusses how the term “participation” in decision-making processes is interpreted in the context of this study. Section 6.3 discusses the negatives and positives being experienced as a result of the land-use changes on women’s lives, their families and communities. Section 6.4 looks at the differences and similarities between the studied sites, followed by a comparison of the new oil palm projects in ENBP to the existing oil palm industry in WNBP.

6.2 Interpreting Participation

The term “participation” has many meanings. It is a western concept, and that is where the word participation comes from. Participation is measured at different levels for various situations. For instance, development organisations use a participatory approach to the designing, planning and implementation of projects. Participation maybe different in the family, community and development projects where an individual plays diverse roles (Vixatsep, 2011). However, there is no specific word for “participation” in the Pomio local language. Few tok pidgin phrases such as *wok bum wantaim*, *kisim tingting* or *tok olrait* are used by Pomio women to describe participation in the decision-making processes. The term participation was simply described by a woman participant as having a say, a voice or getting involved in activities happening in the households and the society. For example, most of the participants referred to their involvement with daily activities as participation; activities such as helping a family member or community member clear a new garden, harvest cocoa or contribute towards community events. Women participate in a wide range of activities from household chores to community events as part of their daily roles (see Chapter 5).

Decision-making as defined by the Business Dictionary (June, 2014) is the thought process of

selecting a logical choice from the available options. For instance, when trying to make a good decision a person weighs the positives and negatives of each option and then considers all the alternatives. Pomio women's understanding of decision-making processes was all about women having a say or men seeking women's views and approval prior to entering into negotiations or dealings over traditional land with outsiders. For example, elderly women were respected for their decisions on how land was to be used and managed, and who to transfer inheritance rights to within the immediate family and relative members in the clan, and that all the other members of the clan should have or be given user rights. For some interviewees, it was understood that decision-making processes over land was all about collective ideas and views brought together from each individual as a community member, in deciding and planning on land, when it came to allocating land to foreigners or outsiders for leases.

6.3 Positive and Negative Outcomes of Oil Palm Developments

In the study areas, it was found that land-use has changed significantly and that this has changed women's lives both positively and negatively. People's livelihoods and cultural practices are under increasing pressure as a result of deforestation from logging. The resulting land-use changes have also provided some opportunities for the locals too. Although, oil palm development is new to ENBP compared to WNBPs, the oil palm developments provide a substitute for the subsistence agricultural livelihoods of the people (International Trading Strategies Global, 2011; Koczberski, 2002). Oil palm development has also provided a cash economy and offers beneficiaries of oil palm developments greater opportunities to earn regular income, and has also created other opportunities for locals to improve their living standards (Koczberski, 2002). The agricultural industry still supports the majority of the rural population in PNG but has been "relatively stagnant over the past decades". The oil palm industry is seen as one of the few development "successes" (Koczberski, 2002). One of the

positive benefits from oil palm development is the construction of the infrastructure which has helped to improve market access and communication. However, although bridges, roads and shops have been built, they are not maintained. As a result, the impacts have not always been positive. Environmental effects such as water pollution, and forest resource exploitation have deprived local people of indigenous food sources and products, which they depend on. These findings are similar to what Dhali (2008) and Forests Monitor (2006) reported about logging of indigenous forests and the consequences felt by the indigenous people. Further, Forests Monitor (2006) reports landowners' complaints that logging operations on their land have negligently damaged their land and reduced the potential of the people to find sufficient food in the forest. This situation is similar to what the participants described when interviewed about the shortage of food supply sources, thus increasing their dependence on the cash economy. Women suggest that the oil palm developments have brought more of a negative impact than a positive one. In this matrilineal society, land is central to women's livelihoods, status and wellbeing. Women feel that their main source of livelihood and most importantly, women's identity, the "land", has been illegally taken away from them. Women's daily lives depend very much on what they do on the land. It provides food, the means of security through social status, the sense of belonging and the source of income, confirming what Koczberski et al. (2009) found. Women cultivated the land to provide food for the households, collected wild edible plants from the forest, and fished from the water and sea for protein. Other non-clan members living in the clan also benefitted. Women were responsible for taking care of the land as they held the inheritance rights over it as interviewees stated. Further, women worked hard on the land to grow traditional valued root crops, to raise pigs and to do fundraising to host customary feasts and rituals in the clan. In clan ceremonies their generous sharing and contributions towards these ceremonies gave them prestige and social status. Women's contributions were seen as a valuable quality by the clan. Income earned from food and cash crops supported families to meet basic household needs and social obligations. The

women's inheritance rights over land and the meeting of social obligations have enabled women to actively participate in the decision-making processes over the land with their brothers, uncles and male cousins. Women's involvement in the decision-making processes also enhances their social identity or status in the community as landowners. Agricultural developments such as oil palm affect women's lives more than other community members as women have a greater connection to the land than men, with the whole life of a woman centred on the land (Archer & Meer, 2001; Macintyre & Foale, 2007; Macintyre, 2011). When communal land is given up for land developments women are adversely affected. As land is taken up for another use, women have to look at alternatives to support themselves and their families, and protect their inheritance rights over land. Most importantly they lose their main source of livelihood, as one participant stated:

"We are content with what we get and produce from our land resource, we earn income from our surplus garden produce and are rich" (p 97).

These changes will not only affect women socially but also physically, mentally and spiritually as it encompasses their whole social wellbeing. One of the positive impacts women talked about was the power of women's groups to advocate for them and so increase their voice about the impact of significant change on them and their families. Be'Soer (2012) also identified this as an outcome of negative change. As a result, women's groups have developed in various villages and wards to increase women's voice in these development projects. For example, earlier in 2013, the Wide Bay Conservation Association (WBCA) in collaboration with the International Women Development Agency (IWDA) have partnered with the East Pomio Women's Association (EPWA) to strengthen women's capacity to respond to the needs of women in regard to resource management and sustainable development (IWDA, 2013).

More negative than positive impacts of land-use changes in general and especially the oil palm developments were identified. Further, development has taken place to help the developers and also the communities but infrastructure has not been well maintained. The development projects have not relieved the problem of women having to walk long distances to their gardens for food, to fetch drinking water and collect firewood. This now takes more effort and time than before the developments. IWDA (2013), also reported that large-scale development initiatives can negatively impact women and girls as they move into the plantations to engage in paid work or pursue livelihoods through farming activities. Most women were worried about their children's future and had food security concerns because deforestation and oil palm development projects have reduced available land for subsistence gardening. Koczberski et al. (2012) and Butler (2009) found that this also happened in more established oil palm developments in PNG, with Butler (2009) stating oil palm has increased local people's dependence "on an export crop they can't eat". Both men and women expressed concern that the development projects and the introduction of the cash economy had greatly contributed to the breakdown of their traditional values. Many social problems such as violence, divorce, abuse of alcohol, the practice of polygamy, and the loss of mutual respect for each other in the community has followed. Women strongly expressed their concern that their land was taken away from them without their proper awareness and consent. Their wishes and rights were not respected in the contractual dealings over land leases. Men had taken the lead in all the negotiations and ignored women in the decision-making processes. Koian (n.d) and IWDA (2013) confirm that land discussions without women's involvement will not achieve true development as Melanesians, men and women are tied to their land, but women understand the land better as the motivation is family survival. For instance, when women and some community members tried to protest and stop further forest clearing and planting of oil palms, the police intervened and made arrests. It was reported by Fox on Radio Australia (October, 2011) that loggers used local

police to stop villagers from protesting against an oil palm project. Women now know that they no longer have rights over these lands for the duration of the leases, once the land is leased to the developers. As many of the leases are of 99 years, they have essentially lost any control of their land. These long-term leases have stripped people's control of their land (Butler, 2009), and as pointed out by a participant: *"we are becoming spectators on our land, causing us to become poor and poorer instead of becoming rich as our land is controlled by someone else"*(p 96).

Traditionally Pomio women played significant roles in planning and management of land as a matrilineal-oriented society. One emerging theme is that despite a cultural expectation of being consulted on community decisions involving communal land, women feel that they now have little say and a limited ability to participate in decision-making processes regarding land-use changes. Prior to the introduction of the cash economy, their decisions or concerns were represented by their brothers, male cousins and uncles in the matrilineal men's house (Brouwer et al., 1998) for further discussion among the men. Though land is regarded as a communal resource, not everyone in the clan has equal rights when it comes to the decision-making processes, some have inheritance rights while others have user rights (Hunt, 2000).

With the current land-use changes in the community, women are faced with all kinds of pressures with Koian (2010) stating that "A Melanesian women's role is associated with child bearing, yet more than that. As she brings children into this world, she must make sure to secure a piece of the most important asset – land – for them, she uses this land to bring in food and adds value to the land, and brings in valuable information and knowledge about the land". In the subsistence economy, women worked hard on the land to meet their basic household needs and social obligations. Generous sharing and giving from what women harvested and gathered from their land gave them social status and value in the society. In this cash economy, women are finding ways to uphold their roles as land is

commodified. Land is a very important source of livelihood, and the lack of it has put women in a critical position. Not only are women being affected, but their families and the community as a whole are being affected too.

The oil palm development in the Pomio district has impacted the lives of women, as a matrilineal society. Women's voices have not been heard as men have a greater influence over the decision-making processes. This has made women's lives more severely affected because of their reliance on the traditional livelihoods economically and culturally. Be'Soer (2012); UN Women (2012); Kolopen et al. (2006); and Koian (2010) confirm that women play a significant role in the production of food and agricultural products but are ignored in development planning processes, which leaves women disadvantaged in the developing agricultural sector. Further, not everyone in the communities are affected equally. Some people's lives are enhanced by the development projects; for instance, those with inheritance rights have great control over benefits such as royalties. However, some people's lives are made poorer, especially those who are users. Additionally, government and development partners' policies and practices have made things worse for the locals. Most participants complain that government agencies who were mandated to care for the best interests of the local people, have ignored many of their concerns about these development projects. For instance, there was no proper consultation to make the locals aware about the benefits and costs of land leases. Most locals claim that their rights over customary land were not respected and they were uninformed before the projects began.

Although the National Constitution of PNG (n.d.) promotes more equality on women's participation at all levels (family, community, district, provincial and national) this study reveals that this is not happening. For example, there are no women representatives or spokeswomen in the Incorporated Land Groups and Landowner Company committees, to speak on behalf of women, as described by a women leader:

".....during the formation of ILGs, no woman was voted or appointed as a women's representative and men never asked women of their opinions. As a women leader, I have been reminding men not to exclude women in any meetings and negotiations processes so women are part & parcel of these projects..." (p127).

These actions are also a breach of the Land Groups Incorporation (Amendment) Act 2005, Section 5 (2) (b), 8, which requires women representatives on the management committees during the formation processes. These constitutional rights of women were not and are not fully implemented at the local level. Women require an enabling environment with resources and access to information, with capacity building and coordination to look into issues affecting women (Be'Soer, 2012), through the government and resource development agencies' policies and practices.

6.4 Summary

This sections summarizes similarities and differences found in the two study sites of the Pomio district in relation to the overall research aims. The similarities and differences identified in the two study sites are presented in Table 6. The main differences in the oil palm developments between ENBP and WNBP are then considered. The main differences between the two provinces are presented in Table 7.

Table 6: Similarities and differences in study sites

Themes	Site One	Site Two
Development partners	Logging and oil palm projects managed by developer	Logging managed by developer, oil palm project is a joint venture with Landowner company
Production systems	Joint Venture (JV) scheme	Nucleus-estate smallholder scheme (NES)
Area of land under oil palm planting at present	500 hectares	4,000 hectares
Development stage of oil palm blocks	Field planting stage to two years out in the field	Oil palm plants at fourth year of growth
Land disputes	Frequent high rate of tribal fights than before	Minimal; happen on a few occasions
Basic services (roads, bridges, ports, telecommunication)	Regular shipping and weekly flight schedules and use of outboard motor boats to Kokopo town Unsealed road network from coast up to higher altitudes No permanent bridges; temporary bridges using waste logs placed over rivers/creeks Better telecommunication coverage	Use of outboard motor boats to Kokopo town Unsealed road network connected to Kokopo town, no public transport system Similar Limited telecommunication coverage
Cash cropping (cocoa & copra)	Most people have abandoned blocks since inception of oil palm projects	Locals still working on their smallholder blocks
Governing institutions supporting women's voice in decision-making on land-use development	Informal and formal institutions failing to enhance women's voice	Similar
Degree of women's participation in decision-making on land use changes	Women have been ignored and excluded from meetings & decision-making from the initial stages of the development projects	Similar

Women's social status in community	Eroding fast in this transition era (subsistence to cash economy)	Similar
Impact on women's lives & livelihood (gardening & forest resource)	Greatly affected as most land area is taken up for oil palm projects	Still have some land available for food and cash cropping, women are less affected
Women's engagement in oil palm projects through employment	Higher number	Minimal number
Alternative activities women engaged in to earn income apart from food and cash cropping	Semi-commercial poultry,* fuel depots, trade stores, fresh fish marketing, tailoring, used clothing, mobile prepaid cards, and baby-sitting for those mothers who work in the oil palm projects	Similar

*The demand for fresh animal protein on campsites has allowed locals to venture into this project. The Division of Primary Industries facilitates locals in this business opportunity.

Overall, the two study sites have both positive and negative outcomes from oil palm development. The villagers in study site one are much more adversely affected as most of the arable forestry land has been taken up for oil palm planting, while the villagers in study site two are less affected because some forest land is still available for providing food sources and forest products to meet their livelihood needs.

6.4.1 Comparison of Oil Palm Development Between East New Britain and West New Britain Provinces

There are a number of differences identified when comparing oil palm developments in WNB to ENBP. WNB offers a constructive comparison for this study, because the oil palm industry is more established, since it was established during the Australian colonial administration in the 1950s (Koczberski et al., 2001). Some studies have been carried out comparing WNB to other oil palm growing regions of PNG (Koczberski et al., 2001; Koczberski, 2002, 2005 & 2006; Koczberski et al., 2009; Koczberski et al., 2012). **Table 7** below illustrates the differences between the two Provinces.

Table 7: Oil Palm Development in WNB and ENB

Development trends of Oil Palm Industry	West New Britain Province	East New Britain Province
Stages of development	Oil establishment in late 1960s (40 to 50 years)	Just being developed (2009 & 2010)
Mode of production	Private estates to Village Based-Production (VOP), including nucleus smallholder estate schemes	Plantation and Nucleus - smallholder estate schemes
Land tenure	Land settlement schemes (LSS), Customary land (VOP) and State leases Migrants and customary landowners	State leases (99 years lease) Customary landowners
Ownership rights over land	For land under LSS and VOP, the property rights held by the locals. For land under State lease, locals have no control over land	Locals have given up their property rights and no longer have control over land (99 year leases)
Women's participation	Women benefit through Mama Lus Fruit scheme - payments received by women for their work on family blocks. Also earn income as workers on private estates. Sufficient land for food gardening and other cash crops. Diversified Women's roles and rights acknowledged through Mama Lus Fruit scheme	Currently, earn income as workers. Unsure what will happen when oil palm starts to fruit Most land is leased and limited arable land available for gardening. Less diversification Women's roles and rights not acknowledged
Stakeholders involvement	Firm and well established partnerships, collaboration and networks for the industry; (New Britain Palm Oil Limited [NBPOL], Oil Palm Industry Cooperation [OPIC], Oil Palm Research Association [OPRA] & West New Britain Provincial Government [WNBPG])	Emerging industry with private developers, resource owners, Pomio District Administration & East New Britain Provincial Government
Infrastructural development	Well established & maintained permanent roads & bridges, and education and health facilities built for company workers, which also benefit the surrounding community Provide incentives for communities through the education scholarship for tertiary students	Construction of new road networks, temporary log bridges. Most low flowing creeks and waterways have no bridges or culverts. Tangible services to be provided as part of the spin-offs for the community

Problems identified	Population increase leading to land pressures	High likelihood of food security problems
	High percent of household income spent on store goods	Women's concern about their children's futures
	A diversified cropping system caters for basic needs	Lacking diversification due to lack of availability of land.

In summary, the women of Pomio in ENBP are faced with all kinds of pressures as customary land is taken up for development projects. Women as custodians of the land are adversely affected, as their livelihoods are centred on the land. Consequently, women are seeking employment in the new oil palm establishment projects as an alternative way to support themselves, their households and their communities. However, not every woman goes to work in the oil palm projects.

When women in ENBP saw that they were less compensated for their labour on the family oil palm blocks, compared to women in WNPB, the women turned to other activities such as the marketing of garden produce to support themselves. As a result, the oil palm industry was affected due to the high percentage of fruit wastage. To solve this problem, the Mama Lus Fruit scheme was introduced to allow for the participation of women in the industry and compensate women for their labour provided on the family blocks. This also assisted women to earn regular income to help themselves, meet household needs, and support and contribute towards social obligations as well as other community activities.

Chapter 7: Conclusion and Recommendation

7.1 Introduction

This study has explored the participation of women in the decision-making processes on oil palm projects in the Pomio District, ENBP in PNG. From personal experience as a local Papua New Guinean, who was raised in a rural village, I understand the social inter- and intra-relationships in the communities and in the rural context. Through my experiences in working in delivering trainings, I began to understand ethnical diversity and differences between the patrilineal and matrilineal societies of PNG. I also became familiar with the differences between rural and urban, rich and poor, men's and women's roles, language, and literacy and education. However, I remain interested in these differences and especially the little or no involvement in decision-making processes by the women in the matrilineal society of ENBP. The main objective for this study is to explore Pomio women's participation in decision-making processes in the development projects in the communities, since women are traditional custodians of the land. The study focuses on the following research questions:

A. How are women affected by oil palm developments in ENBP?

- 1)** How do women participate in decisions about land-use changes?
- 2)** What are women's views on the land-use changes?
- 3)** What types of arrangements are available for women to participate in these projects?
- 4)** Which factors affect the degree of women's participation?
- 5)** What are the roles and status of women in land-use changes in their communities?
- 6)** How will women's lives be affected?

To answer these questions, I started with reviewing the literature on land tenure as 97 percent of land is under customary ownership and eighty-five percent of the people live in rural areas. Rural livelihoods are supported by subsistence farming, where women play a major role. Due to the increasing demand for socio-economic developments, customary land is alienated by the

State for sub-leases to other persons or organizations for up to 99 years. Customary land inheritance is either patrilineal or matrilineal or both in the complex societies of PNG. This customary land tenure comprises a bundle of rights, such as the right to occupy, to use, develop, inherit, pass down, defend and exclude others. Land is used as a common resource but with variations in customs throughout the country; in nearly all cases the rights of the individual are subordinated to the recognised land-owning group.

Further, previous studies on oil palm producing provinces, especially WNB, were viewed to understand how women participate and benefit as they have played a significant role through the provision of labour to the oil palm industry. In this context, ENBP is known to be one of the country's major economic growing centres of the New Island regions. However, Pomio is one of the districts in ENBP that is situated in a remote rural area where development is hindered by its challenging geographical features. Under the Pomio Economic Development Strategy (PEDS) of 2005-2011, the Rural Agro-Forestry Development Projects were implemented. The oil palm projects were seen as viable cash crops after logging and for the maintenance of infrastructure services in the area. Oil palm was seen as more important than other cash crops such as cocoa and coconut. Therefore, as a component of the Rural Agro-Forestry Development Projects for the district, oil palm planting was established.

The research questions have been answered through field based case studies of two oil palm development project sites under the Pomio Economic Development Strategy (PEDS) of 2005-2011. Qualitative methods used included in-depth interviews, observations and conversations. Through the analysis of data, results and discussion, the research questions were answered. The results provide a scenario of Pomio women's participation levels in decision-making processes on land development and the effects the land-use changes had and are having on the women, their families and their communities.

In conclusion, firstly, this was an exploratory research project into understanding the

participation of Pomio women in decision-making processes when customary land undergoes land-use changes through development projects such as oil palm establishment and infrastructural developments. This exploratory study was conducted in two oil palm project sites which have been developed and managed by two different foreign investors. From this investigation, it was revealed that Pomio women traditionally were involved in decision-making processes over customary land in the clan or tribe. The inheritance rights over land gave women their social status, their value and the authority to participate in discussions and decision-making processes on the sharing, distribution, use of and management of the clan land in the subsistence economy. In the subsistence economy, the Pomio women played significant roles in their households and in the community. In order for Pomio women to maintain their social status and values as land heirs, the women worked extra hard on their clan land to provide for household needs and to meet social obligations. For women, their livelihood was all centred on the land. However, the findings reveal that women had little say and were limited from participating in the discussions and decision-making processes when the men were negotiating and dealing for land developments in the communities with the development partners. Women express considerable concern that their rights as land heirs and their social status and values were overlooked by men. Women were not included in the negotiation processes to lease customary land for development. Consequently, the cultural norms of ethical values have eroded rapidly with the land-use changes. This implies that the transition from the subsistence economy to the cash economy in the local communities has had a dramatic effect on the cultural norms and practices of the local people.

Secondly, the development projects, especially oil palm establishment, has brought both positive and negative outcomes to the women, their families and their communities. This study reveals that the oil palm developments have more negative outcomes than positive outcomes on the locals and the environment.

Thirdly, women are promised equality by the PNG constitution at all levels (local, district, provincial and national) in the development of this country but this study shows the opposite.

Fourthly, there is a lack of adequate and effective communication channels established among the stakeholders (government agencies, foreign investors and resource owners) involved in the development projects. This absence in communication channels has led to a lack of proper awareness by the local people, of accurate and factual information about the development projects. From this study, it was found that no proper awareness and consultation was carried out at the community level for locals to be informed about the developments prior to them giving their consent. This has led to confusion and dissonance among locals (clans or tribes) resulting in land disputes. Sometimes, disagreements between locals and foreign investors on land issues has affected the progress of the projects, especially oil palm planting and clearances for roads.

Finally, this study has revealed that there is a lack of clarification and understanding of the contractual agreements on the benefit sharing when the oil palm fruit bunches are harvested and milled, and the palm oil is sold. This is perhaps because of the different systems of production and different management types applied by the two foreign investors on the oil palm projects in the study areas.

7.2 Recommendations

The recommendations below are for the East New Britain Provincial Government, the Pomio District Administration, and the five Local Level Governments, the Landowner Companies, and the Development partners and the people of Pomio. These recommendations are based on the findings of this field study and the literature review.

Firstly, there is a need for education to be strengthened for women. This will improve language skills so that women can be more informed about decisions being made that affect their

communities. Education will support and strengthen women's voice in the communities because women are adversely affected, not only socially but physically, mentally and spiritually as well, by the development projects on customary land.

Secondly, there is a need for government and corporate processes to be improved and strengthened to make contracts and decision-making processes more clear and transparent at all levels in development projects.

Thirdly, at the national level, positive role models such as the three current women Parliamentarian members are needed to empower women, thus allowing women to be motivated and to actively participate at all levels of development.

Fourthly, the oil palm companies need to find ways to share economic benefits in a similar manner to the oil palm industry in WNPB.

Finally, more research is needed to explore highlighted issues in more depth.

7.3 Future Research

This is an exploratory study into understanding Pomio women's participation in decision-making processes in dealings with customary land for development projects, especially oil palm establishments and the impacts on women's lives.

Therefore, firstly further research is needed for land tenure arrangements under the Special Business and Agricultural Leases (SABL) schemes.

Secondly, further research is needed on the socio-economic impact of the oil palm developments in the project study areas, including the whole of the Pomio district.

Finally, further research is needed into the performance of the roles and functions of the government agencies, institutions and organizations, who are responsible for implementing policies to enhance the participation of women at the community level in the development projects.


Appendices

Appendix A. List of Abbreviations and Acronyms

AusAid	Australia Agency for International Development
BOD	Board of Directors
DFID	British Department for International Development
DPI	Division of Primary Industries
ENBP	East New Britain Province
ENBPG	East New Britain Provincial Government
FAO	Food and Agriculture Organisation
FFBs	Fresh Fruit Bunches
FMA	Forest Management Act (legislation)
FMA	Forest Management Agreement
GDP	Gross Domestic Product
ILGA	Incorporation Land Group Act
ILGs	Incorporated Land Groups
ITSG	International Trading Strategies Global
IWDA	International Women Development Agency
LLG	Local Level Government
LMA	Logging Market Agreement
LOC	Landowner Company
LSS	Land Settlement Scheme
NFA	National Forest Authority
NFS	National Forest Services
NG	National Government
NRI	National Research Institute
NZAID	New Zealand Agency for International Development
OECD	Organisation for Economic Cooperation and Development
PEDS	Pomio Economic Development Strategy
PG	Provincial Government
PNG	Papua New Guinea
PNGFA	Papua New Guinea Forestry Authority
PWA	Pomio Women's Association
RHL	Rimbunan Hijua Limited
RHPNG	Rimbunan Hijau Papua New Guinea
SABLS	Special Agriculture and Business Leases
SMIRD	Sigite Mukus Integrated Rural Development Project
TA	Timber Authority
TRP	Timber Right Purchase
UN	United Nations
UNDP	United Nations Development Program
UNRE	University of Natural Resources and Environment
VOP	Village-based Oil Palm
WBCA	Wide Bay Conservation Association
WCED	World Commission on Environment and Development
WNBP	West New Britain Province

Appendix B. Incorporated Land Group Application Form and Processes

The ILG application form and processes used in formation of ILGs to register customary land titles.


Papua New Guinea

Form 1 Sec. 5

Land Groups Incorporation (Amendment) Act 2009

THE INDEPENDENT STATE OF PAPUA NEW GUINEA

**APPLICATION FOR RECOGNITION
AS AN INCORPORATED LAND GROUP**

INSTRUCTION FOR COMPLETING THIS FORM

1. This form must be completed in **BLUE PEN** and must be hand-written.
2. This form must be accompanied by the following requirements;
 - 2.1) Form 2 - Records of Meeting Decision
 - 2.2) Form 3 - Certificate on Adoption of Constitution
 - 2.3) Form 4 - List of Membership accompanied by Birth Certificates
 - 2.4) Form 5 - List of Property
 - 2.5) Constitution of the Land Group
 - 2.6) Sketch map of all customary land owned by the land group.
3. The application with all required information must be submitted in **DUPLICATE**.
4. This form should be completed with the assistance of the Provincial Customary Lands Officer.
5. Provincial Lands Advisor must endorse your application. Without the Provincial Lands Office's endorsement, the application will not be processed.
6. All applications must be lodged through the respective Provincial Lands Office.
7. All Publication Fees in the National Gazette and the Media is to be paid by the Applicant.
8. Your ILG Certificate will be forwarded by registered post, unless you elect to collect in person by the Chairman or the Secretary. Ensure your postal address used in this application must be reliable.

Land Groups Incorporation (Amendment) Act, 2009

CONSTITUTION OF THE _____ LAND GROUP (INCORPORATED)

1. NAME

The name of the group is the _____
Land Group (Incorporated). In the rest of Constitution it will be referred to as "the Land Group".

2. LAND (s)

A physical description of the land and interests of the land group is contained in Form 5 that is attached to the 'application for incorporation' of the land group.

3. LAND TENURE SYSTEM

- a) Land ownership issues whether they are matrilineal system or a patrilineal system of ownership.

☐

Matrilineal

☐

Patrilineal

- b) Heritance of ownership of the customary land.

☐

Son

☐

Daughter

☐

Others

If "others" please explain.

.....
.....
.....

4. MEMBERSHIP

- (1) Membership of the land owning group is determined according to the customs of the area in which the land group originates from.
- (2) The qualification for Membership of the Land Group is that a person recognizes himself or herself and is recognized in accordance with custom by other legitimate customary members fromClan/Village as being a member of the group seeking incorporation.

1. I, (Secretary) of (Village),
 (Province) being the person authorized by the members of the
 land group to make the application on their behalf for their recognition as an incorporated
 land group to be known by the name of
 Land Group Incorporated, The land group hereby submits the application for
 incorporation.

2. The group has the following qualification for recognition as an incorporated land group:

(i) The group is entirely made up of the members of, (Clan) of
 (village) village, which have been in existence for
 generations, and which has common customs and shared interests in customary
 land.

The members of the group reside in the Local Level Government
 Area District Province

The accompanying list of members includes their particulars like Name, Date of
 Birth, Place of Birth, Capacity (Full Member, Guardian), Current Address.
*Certified copies of birth certificates should be submitted with the list of
 members.*

(ii) The group enjoys varying interests according to custom to
 the following as specified in the attached list.

3. The group is within the jurisdiction of the Village Court

4. The proposed dispute-settlement authority of the group comprises:

<u>Name</u>	<u>Status</u>	<u>Village</u>
.....
.....
.....

*(Note: No members of the Management Committee should be included on the Dispute
 Settlement Authority (DSA). The DSA should be an independent and a neutral body to
 deliberate on the ILG's disputes)*

5. The Management Committee comprises:

<u>Position</u>	<u>Name</u>	<u>Signature</u>
Chairman
Deputy Chairman
Secretary
Treasurer
Female Rep
Female Rep

Dated this _____ day of _____ 20____

Signature of Applicant: _____

Name of Applicant: _____

Postal Address: _____

Phone Contact: _____

Collection/Despatch Instructions to the Office of Registrar of ILG: (Tick whichever is applicable)

- ☐ The ILG Certificate will be collected in person when it is ready
- ☐ Please send the ILG Certificate by registered post to the above address when it is ready.

Assisted by the Provincial Customary Lands Officer:

Signature: _____

Name: _____

Date: _____

Comments and Recommendations by Provincial Lands Advisor:

.....

.....

.....

.....

.....

Signature: _____

(Note: Please sign and stamp)

Name: _____

Date: _____



Land Groups Incorporation (Amendment) Act 2009

Form 2

Sec. 14A - 14D

RECORD OF MEETING DECISION

This is to certify that, a meeting of the land group held at.....
.....village on theday of
20....., where.....adult members of the group were
present, the following decision was taken:

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

Under the Constitution of the land group, this decision is a decision of the
land group, and is binding on all members of the land group.

The Committee;

<u>Position</u>	<u>Name</u>	<u>Signature</u>
Chairman
D/Chairman
Secretary
Treasurer
Female Com. Member
Female Com. Member



Land Groups Incorporation (Amendment) Act 2009

Form 3

Sec.5

Certification

1. Adoption of Constitution;
2. Records of Meetings

.....Land Group (Incorporated)

This is to certify that, at a meeting of the Land Group held on

the.....day of20.....

at.....Village.

Decision was taken:-

1. The.....Clan shall incorporate under the Lands Group Incorporation Act
2. The.....Clan hereby adopts this Constitution
3. The.....Clan hereby adopts the attached list of members and their respective birth certificates as an accurate record of the present living clan members.

Under the Constitution of the Land Group, this decision is a decision of the Land Group, and is binding on all members of the Land Group.

Dated this.....day of20.....

<u>Position</u>	<u>Name</u>	<u>Signature</u>
Chairman
D/Chairman
Secretary
Treasurer
Female Committee Member
Female Committee Member



United Group of Incorporation (Amended) Act 2008

Sec. 5

..... Chan Village
..... HGC District

Endorsed by: _____ (Ward Member)
 _____ (Council Ward)
 _____ (LLG)

Signature:



Land Groups Incorporation (Amendment) Act 2009

Form 5



Sec.5

LIST OF PROPERTY

.....ClanVillage

.....LLG,District

Property Name	Indicate Type (i.e. Land, river, reef, mountain, swamp etc)

Endorsed by: (Ward Member)
..... (Council Ward)
..... (LLG)

Signature:

Note: Attach sketch map of the properties listed in the property list.



Land Groups Incorporation (Amendment Act 2009

Form 6

Sec.5B (2)

Dissemination of Notice of Incorporation of Land Group

To: The Registrar of Incorporated Land Groups.

I, District Administrator for
..... District in whose district the land group is
situated hereby confirm receiving the Notice of Incorporation of Land Group
to be known as Land Group (Incorporated).

The Notice of Application has been widely published to persons having
knowledge of or interest in the affairs of the land group or its members.

Dated this day of 20

Signature:

Name:

Designation: District Administrator

(Official stamp)

Appendix C. Interview Schedules/Guiding Research Questions

A. Guiding questions for women

Ask women to share their experience of how their roles and status are respected as part of their matrilineal culture

▪ *Women's landownership roles*

- 1) How is land passed on?
- 2) Who owns land & how it is distributed?
- 3) What evidence is there about land history?
- 4) What is the meaning of landownership?
- 5) How do women maintaining their roles?
- 6) How does an outsider access rights to use land?
- 7) How are women involved in regard to land issues?
- 8) Do both men and women have meetings together?
- 9) What really happens during decision- makings? To what extent do women make decisions, on what and how?
- 10) How do women meet cultural obligations to be recognised in the community?

▪ *Land use change*

- 1) What concerns do you have?
- 2) What is the distance to the gardens, rivers, seas and forest?
- 3) How much land is taken up for projects?
- 4) Who brought in the project developers?
- 5) How are the benefits shared?
- 6) How do women trust men to do everything? What do they think about men?
- 7) When land is used for projects, how do women have control over it?

▪ *Women's participation in agricultural projects*

- 1) How do women participate in the project activities?
- 2) What roles women play in these projects?
- 3) What motivates women to participate in the project?
- 4) What hinders women from participating in the project activities?

▪ *Women's source of livelihood*

- 1) What type of cash crop activity do women participate in?
- 2) How do women support their household?
- 3) What are the staples for household consumption?
- 4) What alternative source of food supply is there apart from the forest and gardens?
- 5) How is household income distributed?
- 6) Who makes decisions on how income is used?
- 7) What kind of activities do women do each day?
- 8) Who provides most in the household (men/women) and what?

B. Guiding questions for village leaders

▪ *Village leaders land ownership rights*

- 1) How do men own or have customary rights to land?
- 2) How do men recognise women's roles and status in the community?
- 3) How do men share information on meetings about land with women?
- 4) How do men consult women when it comes to landownership?
- 5) What roles do men play as village leaders?
- 6) How do men spend their time and describe how much time they spend in doing things?

▪ *Land lease arrangement for agriculture projects*

- 1) Who participate in the negotiation process to lease traditional land to project developers?
- 2) Whose interest (women/men/community) did they represent during the negotiation?
- 3) Who else was present during the meetings, apart from developers?
- 4) Where the terms and conditions of lease agreement understood?
- 5) Who signed for the approval of leasing traditional land?
- 6) How is community benefit from the project?
- 7) What are the negatives things experiencing by the community as a result of the projects?
- 8) What happens to the money paid for lease?

C. Guiding questions for government officers

Tell a story of their working experience with the locals before and during the project implementations

Ask the government officials to provide secondary data about the local community

- a) What are their roles as part of their job to the community?
- b) What channel of communicate is used to address people's issues in relation to land use developments?
- c) Do they conduct awareness programmes to local communities on the advantages and disadvantages of land use change on their environment and implications on their livelihoods?
- d) What support does the government provide to supplement local people's livelihood apart from that provided by the developers?

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