

# Poverty and Social Assessment Report

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November 2012

PNG: Maritime and Waterways Safety Project

**CURRENCY EQUIVALENTS**

(as of 5 November 2012)

Currency unit – kina (K)

K1.00 = \$0.49

\$1.00 = K2.06

**ABBREVIATIONS**

ADB	–	Asian Development Bank
AIDS	–	Acquired Immune Deficiency Syndrome
AusAID	–	Australian Agency for International Development
BAHA	–	Business Coalition Against HIV/AIDS
CALC	–	Community and Lands Coordinator
CEDAW	–	UN Convention for the Elimination of Discrimination Against Women
CEP	–	Community Engagement Program
CDD	–	Community Development Department
CDO	–	Community Development Officer
CLC	–	Community Lighthouse Committee
CPI	–	Consumer Price Index
DA	–	District Administrator
DLPP	–	Department of Lands and Physical Planning
DSP	–	PNG Development Strategic Plan 2012-2030
ENB	–	East New Britain
FGD	–	Focus Group Discussions
FPIC	–	free, prior and informed consent
GAP	–	Gender Action Plan
GDI	–	Gender Development Index
GDP	–	Gross Domestic Product
GoPNG	–	Government of Papua New Guinea
HDI	–	Human Development Index
HIV	–	Human Immunodeficiency Virus
ILG	–	Incorporated Land Group
LIR	–	land investigation report
LLG	–	Local Level Government
LMS	–	London Missionary Society
MCH	–	maternal and child health services
MDG	–	Millennium Development Goals
MOA	–	Memorandum of Agreement
MTDP	–	Medium Term Development Plan 2011-15
MTDS	–	Medium Term Development Strategy 2011-15
NCD	–	National Capital District
NCW	–	National Council of Women
NDOH	–	National Department of Health
NEP	–	National Education Plan
NGO	–	Non-governmental organization
NHS	–	National HIV and AIDS Strategy 2011-2015
NMSA	–	National Maritime Safety Authority

NPWGE	–	National Policy for Women and Gender Equality
NSO	–	National Statistics Office
PA	–	Provincial Administrator
PIU	–	project implementation unit
PLC	–	Provincial Lighthouse Committee
PMC	–	Provincial Maritime Committee
PMV	–	Public Motor Vehicle
PNG	–	Papua New Guinea
PSA	–	Poverty and Social Analysis
SABLs	–	Special Agricultural and Business leases
SDA	–	Seventh Day Adventists
SPRSS	–	Summary Poverty Reduction and Social Strategy
STI	–	Sexually Transmitted Infection
TA	–	technical assistance
TB	–	Tuberculosis
UBE	–	Universal Basic Education
VGO	–	Valuer General's Office
WGI	–	World Governance Indicators

#### **NOTE**

In this report, "\$" refers to US dollars unless otherwise stated.

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## INTRODUCTION

### A. Objectives and Scope

1. With over 600 islands spanning a total sea area of over 3.1 million square kilometers, Papua New Guinea (PNG) relies heavily on its network of coastal shipping services. The reliance of coastal communities on shipping services is further amplified by the country's limited land based transport network. It is not possible to travel by land between most provinces and most of the 6,500 kilometers of coastline in the country's maritime provinces are accessible only by sea. Further, for many coastal communities, the development of land based transport links is not feasible due to remoteness, rugged or inaccessible terrain and high cost. Most recent poverty estimates show that 75% of the country's poor live in the coastal regions of Momase, Islands, and Central.<sup>1</sup>

2. The safety and efficiency of PNG's coastal transport infrastructure has a direct impact on the access of coastal communities to both economic opportunities, and key public services such as education and health facilities. The safety and efficiency of PNG's maritime transport system also plays an integral part of PNG's transport sector and facilitates economic connectivity linking to road and aviation transport networks. Lack of accessibility to markets and public services for many rural coastal communities has a significant impact on the inclusiveness of PNG's continuing high rates of economic growth. Childhood stunting, a key indicator of nutritional status and poverty, was estimated to be as high as 40.1% of the population in the rural areas of PNG's Islands region in 2010. This effect is particularly pronounced for females, with 43.4% of female children suffering from stunting.<sup>2</sup>

3. The Maritime and Waterways Safety Project (the project) aims to strengthen maritime navigational safety in PNG. It follows the earlier Asian Development Bank (ADB) funded project<sup>3</sup> and can be considered a continuation of its work. The National Maritime Safety Authority (NMSA) as an executing agency will implement the project to improve maritime infrastructure to create a safer environment for coastal and international shipping.

4. To establish a safe and economic maritime transport environment for international and national traffic, it is necessary to continue to improve the network of nav aids in the country. Nav aids reduce risks such as groundings and blockage of channels that can cause serious injury and loss of life, physical damage to coastal reefs, and environmental damage from pollution by loss of fuel oil or cargo in the case of bulk carriers. Nav aids also allow shipping operators to take safe and economic shipping routes by recognizing hazards along routes.

5. While the PNG trading fleet is small by international standards, many foreign registered ships use PNG waters, as well as small coastal cargo ships, inter-island ferries, motorized village dinghies (called 'banana boats') and traditional outrigger canoes. Like other maritime countries, the objective of the navigation aids system in PNG is to provide a nationally integrated navigational support service that meets international standards and is responsive to the needs of transport providers and users. The navigational aids (so called "nav aids", including lighthouses, hazard markers, channel markers, and positioning and communication systems)

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<sup>1</sup> 1996 Household Income and Expenditure Survey.

<sup>2</sup> 2010 Household Income and Expenditure Survey.

<sup>3</sup> ADB. 2000. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to Papua New Guinea for the Rehabilitation of the Maritime Navigation Aids System Project*. Manila (Loan 1754).

cater for the economically important international and coastal routes, as well as ensuring safer travel for small craft in remote communities to social services and markets<sup>4</sup>.

6. Improvements to maritime infrastructure such as the nav aids will make the environment safer for interisland shipping services to the currently poorly serviced outer islands and are expected to stimulate increased local production of cash crops such as cocoa, copra and balsa, as well as timber and fish. While nav aids alone may not create significant changes, the safer environment will encourage more frequent shipping services, creating opportunities to market smallholder produce, leading to increased household income and a high positive impact on poorer households. Safer conditions for shipping services to the outer islands and coastal regions will also improve people's access to employment and other income earning opportunities. Improved mobility will contribute significantly to the health and wellbeing of people living in remote areas by enabling them to travel regularly for a range of purposes, including education, medical treatment, banking, attendance at church, sporting and recreational functions, and family events. Rehabilitated infrastructure at some key ports of call, will attract higher flows of traffic into and out of these centers. This in turn will encourage the development of small local markets and retail outlets, particularly near wharves. This will offer opportunities to local people, and especially to women, to generate additional income through the sale of food and other produce to passengers.

## **B. Purpose and Rationale of the Poverty and Social Analysis**

7. The purpose of the Poverty and Social Analysis (PSA) is to identify the people, social groups and communities that are likely to benefit and/or be adversely affected by the upgrading, rehabilitation and maintenance of navigational aids, improved transport control, monitoring and surveillance systems, wider coverage of hydrographic charts, extended franchise routes and institutional strengthening of the NMSA. The collection and analysis of data and the consultations in the field, are undertaken to increase understanding of the needs, demands, preferences, capacities and constraints of affected people and groups. It also assists in identifying other relevant factors such as land ownership, livelihood patterns, use of resources, leadership styles, social organizations and networks, and how they can influence and be affected by the project. Based on this analysis, the PSA (i) identifies benefits and risks associated with the proposed navigation improvements and (ii) strategies that will assist in enhancing benefits and minimize potential adverse impacts.

8. Effective and sustained operation of the rehabilitated nav aids system depends upon effective and close working relationships developed between the NMSA, provincial administrations, and people in communities close to the sea in 15 coastal provinces during the proposed 5-year implementation period. The ultimate test of those relationships will be the extent to which the population of coastal villagers directly affected by nav aids accept the new and rehabilitated infrastructure, and act to protect it rather than vandalize it. The project will need to address landowner frustrations and dissatisfactions with community benefit sharing that have undermined the nav aids system in the past, leading to theft and/or willful damage of structures and equipment.

9. This PSA Report provides background information on the existing situation in PNG, which will highlight the conditions necessary for the maintenance and sustainability of the nav aids project. It consists of seven chapters plus associated annexes. The six chapters deal with: approach and methodology for the poverty and social assessment; overview of the social

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<sup>4</sup> National Maritime Safety Authority website ([www.nmsa.gov.pg](http://www.nmsa.gov.pg)).



context in PNG; socio-economic profiles of two subprojects; benefits and risks; and social strategies and safeguard issues.

## **COMMUNITY AND STAKEHOLDER CONSULTATION**

### **A. Methodology**

10. The methodology for the social and poverty assessment carried out under the project preparatory technical assistance (TA)<sup>5</sup> can be summarized as follows:

- Initial consultations were held in Port Moresby with NMSA staff and the ADB team to plan field visits to two proposed subproject sites in the Milne Bay Province and around the Simpson harbor in Rabaul, East New Britain.
- Existing data was reviewed, including NMSA documents from the Community Development Department; Government of PNG policy statements on development, the transport sector, and poverty; ADB and other donor project and program design documents and reports; and ADB guidelines on Social and Poverty Analysis. A wide range of documents were reviewed and data collected relating to demographic, social, poverty, economic, health, educational, livelihood and other relevant aspects of the population in PNG, focusing on the rural areas. When available separate data were collected on women and men, young people and vulnerable people.
- Fieldwork was undertaken in selected subproject sites to assess social and poverty issues and to identify any issues the community, provincial and local government may have with installation on nav aids. This took the form of focus group discussions (FGD) with women and men from the affected communities and individual interviews with key informants selected on the basis of their position/role in the community, method of livelihood and use of marine transport.
- Key informant interviews were also held with Provincial and Local Level Government officials to assess social and poverty impacts of improved nav aids in these remote areas.
- Analysis of findings from the FGD and interviews.
- Socio-economic assessment for each subproject. Findings from the visits can be found in Section 3 Subprojects.
- Preparation of Summary Poverty Reduction and Social Strategy (SPRSS) and Gender Action Plan (GAP) to highlight key issues, risks, opportunities and constraints affecting communities living near the subproject sites, and identify initiatives that the Project Community Engagement Program will support to address these and optimize effective participation by those communities and other stakeholders.

### **B. Stakeholder Analysis**

11. For the purposes of this analysis, the ADB definition of Primary (or Principal) and Secondary Stakeholders is used:<sup>6</sup>

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<sup>5</sup> ADB. 2011. *Technical Assistance to Papua New Guinea for Maritime and Waterways Safety Project*. Manila (TA 7869).

- Primary Stakeholders: People, groups or institutions (beneficiaries) affected positively or negatively by the Project. These can be divided into two groups:
- Those living in communities near navaid sites or along franchise routes;
- The water transport sector using navaid or operating shipping services
- Secondary Stakeholders: People groups or institutions that are important intermediaries in the project delivery processes such as government and donor agencies.

12. An initial stakeholder analysis was carried out in order to identify primary and secondary stakeholders to be consulted during the TA. This was based on the review of documents and guidelines, on consultations with NMSA, and with team members of other relevant donor-funded projects, such as the ADB funded Community Water Transport Project.<sup>7</sup>

### **1. Primary Beneficiaries**

13. Coastal communities living in the vicinity of navaid are the principal stakeholders including the landowners who sell or lease land for navaid sites. Other primary stakeholders have been identified as the people and companies involved in the movement of people and freight along shipping routes in the region: (i) vessel owners and shipping companies (of large international and national ships); (ii) operators of dinghies and small craft; (iii) marine transport users of all kinds, including passengers and those dependent on inter-island shipping for the transportation of cargo; and (iv) the businesses and development enclaves in the coastal regions that rely on water transport services, including the fisheries industry. The transporters – whether dinghy operators or coastal shipping – are interested in lowering their operator costs as well as increasing the services they can provide. Their passengers or customers, as the case may be, will benefit from improved, safer and, in some cases, cheaper services. They contribute by expanding the availability of transport services for passengers and freight. In the case of development enclaves, they may contribute to the costs of navaid maintenance through tax credit schemes, and in the vicinity of the enclaves, to provision of health care and other services.

14. The project will replace 99 existing navaid and provide new navaid in 33 other locations. 41% of the project economic benefit accrues to the poor.<sup>8</sup>

### **2. Secondary Beneficiaries**

15. The third category of stakeholders are government and donor agencies: the local, provincial and national government agencies, the NMSA, PNG Ports, and Department of Transport that both benefit from, and are instrumental in the implementation of marine safety improvements and, particularly, the ongoing maintenance of navaid. Their interests stem, on the one hand, from their mandates to provide services to people, businesses and communities in the project areas and, secondly, from their direct contributions of funds and/or technical expertise in assisting implementation. Civil maritime works contractors benefit directly from their involvement in the upgrading, rehabilitation and maintenance of the navaid. This project also contributes to the further harmonization of donor agency involvement in the marine transport sector in PNG.

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<sup>6</sup> ADB Handbook on Poverty and Social Analysis, Appendix 4.1, p.2, Dec 2001.

<sup>7</sup> ADB. 2004. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to Papua New Guinea for the Community Water Transport Project*. Manila (Loan 2079).

<sup>8</sup> Economic Analysis (accessible from the list of linked documents in Appendix 2).

**Table 1: Stakeholder Analysis**

Stakeholders	Stakeholders Interests	Perceived problems	Resources	Mandate
Rural populations in coastal and island provinces	Improved access and mobility; increased and safer water transport services	Poor access to markets , schools, health care and government services Inadequate public transport services	Local people (men & women) provide a monitoring service by becoming “guardians” of the lighthouses/navaids; Community Lighthouse Committee (CLC) payments	Not applicable
Rural households that grow copra, cocoa, fruit, vegetables and other cash crops; market vendors	Improved access to markets and processing plants	Poor access to markets / regional centers; inadequate maritime and riverine transport services for passengers and cargo	Households sell more in local markets and to local businesses (e.g., supermarkets) and processing companies Able to pay for transport services	Not applicable
Women and girls living in rural households, including female household heads	Improved access to markets; improved access to health care facilities; lower maternal mortality; higher enrolment in schools; safer conditions to travel	Poor access to markets, health centers and education facilities; high maternal mortality during childbirth; inadequate & unsafe water transport services	Women sell more at jetties / local markets. Local women provide monitoring and security services Able to pay for transport services Income from CLC to resource small community projects	Not applicable
Young people living in rural communities, in particular young men	Improved access to & opportunities for education, wage employment and/or starting micro-enterprises	Poor access to educational facilities/markets / regional centers; inadequate transport services; lack of income-earning opportunities; unemployment; anti-social activities	Young people provide unskilled labor for maintenance and clearing of lighthouse sites. Able to pay for transport services, education, and training.	

Stakeholders	Stakeholders Interests	Perceived problems	Resources	Mandate
Clan/family groups with customary land located at navaid sites	Compensation payments (lease or outright purchase) for affected land;	Do not receive timely compensation for affected land held in customary tenure; Land disputes between clans; unfair benefit sharing	Access to navaid sites blocked; Continued claims by dissident members; Contribute land for navaid installation	Not applicable
Public and commercial dinghy and shipping transport operators	Improved safety conditions for ships/boats; lower operating costs; expanded business opportunities	Operators do not carry spare parts, sufficient fuel or safety equipment; transport unreliable and erratic; damage to ships/boats; loss of life in boating accidents	Operators increase routes/ services; reduce fares NMSA promote HIV/AIDS awareness, availability of condoms for captains/crews	Not applicable
Dinghy and small ship passengers	More frequent, safer public water transport	Lack of or inadequate shipping/dinghy services; slow, dangerous uncomfortable trips; delays due to bad weather; accidents with passenger injuries/drowning	Passengers willing to pay for improved services	Not applicable
Oil/gas and mining/timber development enclaves in coastal areas	Faster, less expensive transport of supplies to and products from enclaves	High costs to supply enclaves and/or to ship out; lack of navaid pose risks to transport and may cause damage to ships if they hit reefs or get stuck on sandbanks	Oil/gas and mining companies contribute money through tax offset or otherwise Oil/gas and mining companies promote HIV/AIDS awareness, availability of condoms for workers	Not applicable
Provincial Administrations in coastal/island Provinces	Improved delivery of services to rural communities	Inability to provide adequate education and health services to rural communities	Ability to identify shipping improvement priorities on provincial basis; mobilize resources at provincial level	To provide public services to population of province

Stakeholders	Stakeholders Interests	Perceived problems	Resources	Mandate
		due to isolation, poor access, lack of reliable safe shipping	Provincial funds for shipping and nav aids	
District Administrations and local level governments (LLGs) in coastal and island provinces	Improved delivery of services to rural communities	Inability to provide adequate local government services to rural communities due to poor access	Ability to identify water transport improvement priorities on district basis; mobilize resources at district and LLG levels	To provide local government services to populations of districts in province
National Maritime Safety Authority	Upgrading, rehabilitating and maintaining nav aids; maintaining standards for safe international and national shipping; Small craft safety	Lack of reliable safe passenger and cargo services in maritime provinces; vandalism of lights on nav aids; land disputes delay nav aids work; insufficient technical staff available; shipping accidents, environmental damage, and loss of life; limited SAR capacity	Technical capacity for subproject designs and oversight Funds from services to international/coastal shipping	To construct, upgrade/rehabilitate and maintain nav aids and maritime safety infrastructure in PNG  Formulation of national transport policy, planning, safety and the regulation of maritime and riverine transport operations Act as executing agency for implementation of ADB Loan
PNG Ports	Efficient implementation and management of PNG ports Coordination with NMSA in improving safe shipping	Poorly maintained wharves; most ports not financially viable; lack of personnel/ resources; limited capacity to respond to growth in shipping demand due to new resource projects	Technical and management capabilities  Funds from shipping companies using port services	Operation of main international and coastal ports
Department of Transport	A safe and efficient national transport system	Poorly maintained transport systems; lack of reliable safe		Formulation of national transport policy, planning, safety and the regulation of

Stakeholders	Stakeholders Interests	Perceived problems	Resources	Mandate
		shipping services in maritime provinces and roads in inland districts		transport operations
Department of Lands and Physical Planning	Management of land for the benefit of development of PNG; assistance to NMSA in acquiring necessary land for navaid	Lack of personnel / resources; delays due to land disputes	Facilitate land acquisition for project	Acquire land for public purpose: navaid installation
Ministry of Finance	Allocation of the financial resources of Government of PNG (GoPNG) to meet objectives		Disbursement of funds for navaid and shipping improvements	Manage and disburse ADB loan funds to NMSA
Ministry of Planning	Integration of the project into the objectives of the Medium Term Development Strategy 2011-15 (MTDS) and other macro-level policies of the GoPNG		Coordination of ADB loan with	Management and implementation of MTDS Negotiate and sign loan agreement with ADB
Navaid installation and maintenance works contractors	Secure contracts to upgrade/rehabilitate and maintain subproject navaid	Delays due to land disputes or weather conditions; High cost of delivering outcomes in far flung, isolated regions; Need for robust environmental impact mitigation strategies; Handling community complaints directed at Community Development Department in NMSA on maintenance visits	Technical capacity, personnel and equipment  Specialized navaid installation equipment	As specified in NMSA contract
Development Agencies	Harmonize assistance to GoPNG to develop			

Stakeholders	Stakeholders Interests	Perceived problems	Resources	Mandate
	and maintain marine and riverine transport system			

### C. Community Consultations

16. The NMSA provided a list of proposed sites for the navaid in the project, and following consultations with the TA team leader, two subproject sites were chosen for visits, both with differing contexts and issues. One of these was Samarai and Gesila islands in the China Straits of Milne Bay where four new navaid will be installed in the vicinity. The other was Rabaul, where two new lighthouses are proposed to mark the entrance to Simpson harbor and Blanche Bay – one at Raluana and the other on Matupit Island. The intention was that these sites would demonstrate an effective approach to subproject preparation, including community consultations, poverty and social impact assessment, environmental assessment, and development of a strategy to optimize benefits and reduce any potential negative impacts on affected communities.

17. The social and poverty aspects of the subproject sites were investigated briefly, to assess community responses, perceptions, anticipated benefits, opportunities, costs and risks likely to arise from the construction of the navaid. The field research consisted of short 2-3 day site visits and consultations with primary stakeholders, including provincial government staff and officials (where possible), teachers, health center staff, ward councilors and local level government (LLG) officials, and residents of the area near each proposed navaid site. The initial consultations gauged the general community response to the project and explained the need for further detailed surveys once the project is approved. Effort was made to avoid raising community expectations too highly with regard to the subproject going ahead, and the likely timing of the construction work, if it does proceed.

18. It should be noted that these visits were extremely short and organized only days before they were undertaken. It was therefore impossible to meet large numbers of the community at any one meeting, and numbers were small. The consultations were also hampered by the fact that it was the week before the national elections, and many officials and community members were unavailable, as they were involved in its organization.

19. The community consultations were held informally in the open air, with guided questions and discussion. Every effort was made to encourage participation, openness, honesty and confidence in the process. Separate discussions were held with women, although they also joined in the main community meetings with men.

### D. Consultations with Organizations and Key Informants

20. Interviews were held with stakeholders who had an interest in the navaid project. These included provincial administration officials in Kokopo, local LLG staff in both Samarai and Raluana, ward councilors at both sites, the principal of the local school in Samarai, a doctor in Alotau, Milne Bay and health centre staff in Samarai, non-governmental organization staff in Kokopo, women's groups in both Samarai and Kokopo, and small business owners at both sites. The individual interviews were based on a series of guided questions, and targeted both women and men, representing different backgrounds and occupations.

## 21. Analysis of the findings addressed:

- Demographic and social features of the population (taking the nearest ward and LLG as the catchment population);
- Economic and livelihood activities, and access to markets;
- Sources of income (if available);
- Local health services and access to the nearest hospital;
- Local education facilities including primary schools, secondary schools, and technical colleges;
- Existence of social infrastructure such as banks, shops, post office, police post, guesthouses, churches;
- Availability of public transport services and infrastructure including roads, wharves, jetties and airport;
- People's use of boats and ships: frequency and purpose;
- People's perceived problems, needs and priorities related to transport, focusing on maritime services;
- People's attitudes towards the installation of navigation aids; and
- People's views on whether there were any existing disputes over land claims that might impact on the proposed navaid sites.



**Figure 1: Community Consultation at Raluana**





**Figure 2: Interview with Gilipasi Pudidi, Gesila Island community**



**Figure 3: Women's Focus Group, Ruluana**

## SOCIAL CONTEXT IN PNG

### A. Population and Ethnicity

22. The current population of PNG is 7,059,653<sup>9</sup> of which the vast majority (about 87%)<sup>10</sup> live in rural areas, often in small remote settlements widely dispersed throughout the country's large main island and more than 600 smaller islands and islets. The population density is low, and widely dispersed, with a crude density per square kilometer of 11.2 persons.<sup>11</sup> However, only 30% of the 463,000 km<sup>2</sup> total land area is suitable for agriculture, and two-thirds of the land mass is uninhabited.<sup>12</sup> This means that the distribution of density is very uneven across the country and less than 20% lives at low densities, while 45% live in areas with high densities, particularly the smaller islands and mountain valleys in the Highlands region.

23. The indigenous population is Melanesian and culturally diverse with an estimated 715 distinct languages spoken. People are organized in small, fragmented social groups, usually based on kinship or clan groups comprised of people who share a common ancestry. The *wantok* system defines reciprocal exchange relationships and obligations between individuals who share a common bond - of language, kinship, geographic area, social association and/or religion. The strongest allegiances of people in PNG tend to be to their local community and land. Community leadership is an evolving process that relies on the identification of leaders on the basis of their achievements and an egalitarian approach to decision-making among adult men, but not women. English is the official language; the lingua franca are Melanesian pidgin (*TokPisin*) and to a much lesser extent, HiriMotu. Most of the population is at least nominally Christian, and there is a plethora of different Christian denominations and sects, adding to the traditional social diversity.

24. In 2000, half of PNG's population was under the age of 19, 40% was under the age of 15 years, 60% was under 24 years, 68% was under 30 years, and the number of young people is expected to double in the next 20 years. In contrast, in 2000, the population over 65 was just 2.4%.<sup>13</sup> Youth unemployment is high and rising, with only one in ten school graduates finding jobs in the private sector. With many young people leaving their villages in search of jobs in the towns and cities, and few job opportunities available, there has been an expansion of male urban youth gangs, who often turn to crime to survive. Nationwide, over 50,000 youth enter the labor market each year while there are only a few thousand new jobs created. In fact, the formal work force has grown from only 124,000 in 1978 to 146,000 in 2001, during which period the PNG population doubled.<sup>14</sup>

25. The dependency ratio (ratio of children and elderly to the working population between 15–64 years) indicates the burden on the latter to support dependents too young or too old to work. The rural dependency ratio in 2000 was 75.8.<sup>15</sup> This means that on average every 4 working people support themselves plus 3 dependents in their households. Although the dependency ratio is projected to decline to about 72 by 2015, this does not take into account the impact of the Human Immunodeficiency Virus (HIV)/ Acquired Immune Deficiency Syndrome

<sup>9</sup> Preliminary Figures, Papua New Guinea Census 2011 p.4.

<sup>10</sup> Source: <http://hdrstats.undp.org/en/countries/profiles/PNG.html>.

<sup>11</sup> Preliminary Figures, Papua New Guinea Census 2011 p.4.

<sup>12</sup> Hansen, L, B. Allen, R. Bourke and T. McCarthy, 2001 'Papua New Guinea Rural Development Handbook.'

<sup>13</sup> PNG Census, 2000, National Statistics Office (NSO).

<sup>14</sup> PNG Medium Term Development Strategy.

<sup>15</sup> PNG Census, 2000, NSO.

(AIDS) epidemic that may significantly reduce the adult population and increase the number of AIDS orphans.

26. The distribution of the population in the four major regions of the country is summarized in the following table.

**Table 2: Population Distribution<sup>16</sup>**

Population	Number
PNG Total Population	7,059,653
PNG Total Male Population	3,663,249
PNG Total Female Population	3,396,404
Southern Region Population	1,302,887
Highlands Region Population	3,001,598
Momase Region Population	1,795,474
Islands Region Population	959,474
PNG Annual Growth Rate (2000-2011)	2.8%

27. Each region has 5–6 provinces, with the Highlands having the highest percentage of PNG's population at 43%. The population is expected to double in 25 years' time. The sex ratio for PNG is 108 males per 100 females, which makes it one of the few countries in the world where males outnumber female.<sup>17</sup> The reasons for this are not known, but such ratios are normally found in countries with pronounced gender inequality. National Capital District (NCD) recorded the highest sex ratio of 116, which reflects the high rates of rural-urban migration. The average household size (or number of persons per private dwelling) varies from 3 in the Western Highlands to 11 in Jiwaka, averaging 5.4 persons per household in 2000. Women are recognized as head of 13.4% of all households in PNG.

## **B. Poverty in PNG**

28. PNG's current Human Development Index (HDI)<sup>18</sup> is 0.466 which gives the country a rank of 153 out of 187 countries with comparable data, well below most Asia Pacific countries. The HDI vary widely across the country.

**Table 3: Provincial Human Development Indicators<sup>19</sup>**

Province	Indicator
Port Moresby (NCD)	.758
Western	.472
East New Britain	.432
Manus	.421
Milne Bay	.420
Central	.408
New Ireland	.394
West New Britain	.394

<sup>16</sup> Preliminary Figures, Papua New Guinea Census 2011 p7 NSO.

<sup>17</sup> Preliminary Figures, Papua New Guinea Census 2011 p7 NSO.

<sup>18</sup> World Bank, *World Development Indicators 2011*, Washington D.C., World Bank. <http://data.worldbank.org>. Accessed 30 July, 2012. The HDI provides a composite measure of three basic dimensions of human development: health, education and income.

<sup>19</sup> More recent results of HIES are not yet available. These indicators have certainly fallen since 1996.

Province	Indicator
Morobe	.389
Oro	.386
Madang	.336
Gulf	.331
Eastern Highlands	.325
Simbu	.320
East Sepik	.304
Enga	.283
Western Highlands	.282
Southern Highlands	.274
Sandaun (W Sepik)	.262
PNG (1995)	.515

29. The reasons for PNG's low HDI are complex, but partly rooted in the geography of the country, its political economy, and its social and political processes.<sup>20</sup> The environment would be difficult under any circumstances: with so many scattered islands, isolated river valleys, dense forests, huge swamps near major rivers, and the land rising from sea level to 4,500 meters (with great variations in climate, flora and fauna, not to mention the largest number of active volcanoes in Melanesia) there are many natural constraints. As a consequence, there are relatively few roads (and only 3–4% of these are paved), and inadequate shipping services. PNG's capacity overcome the difficulties of its environment and to turn the profits from its huge natural resources into effective development has so far been beyond the government's ability or will to achieve, even with donor support.

30. PNG poverty levels are increasing. The literature shows that even if it were once the case, it is no longer true that most people in PNG are able to eat well from their gardens or labor. Vulnerability is increasing, though how susceptible to shocks a person is, or how likely they are to live below the poverty line depends on the quality of their land, the province they live in, their health status, and their access to education. Using a PNG World Bank poverty line that allows for 2,200 calories per adult equivalent per day and an allowance for basic non-food expenditure, the poverty measures indicate that the proportion of population in poverty increased from 37.5% in 1996, to 54% in 2003.<sup>21</sup> The trends are similar if the international poverty line of \$1/day is used, where the incidence of poverty is estimated to have risen from about 25% to just under 40% in the same period.<sup>22</sup> This trend is continuing with deepening poverty particularly in isolated rural parts of the country.

31. Many people do still have land and are able to grow sufficient food to meet basic household consumption needs, but others (for example unmarried youths, women heading households, migrants, disabled people, and those living in high density areas or on poor quality land) do not and suffer considerable hardship. Because people's livelihoods are increasingly linked to a cash economy, there are wide discrepancies in the well-being of different segments of society. In addition to low incomes, a 2001 participatory poverty assessment clearly indicates the non-income dimensions of poverty in PNG: specifically, people consider they are poor when they lack (i) jobs, (ii) land, (iii) education, (iv) services such as health and water and (v) transport

<sup>20</sup> See also ADB's report '*Critical Development Constraints*', 2012 ix.

<sup>21</sup> World Bank, *Papua New Guinea Poverty Assessment*, 2004.

<sup>22</sup> The latest 2010 HIES figures are not yet available from the NSO.



and roads; the most pressing needs were felt to be safe drinking water and useable roads or shipping.

32. Reports indicate that poverty in PNG became worse (nearly doubling) due to poor economic performance combined with rapid population growth, in the period 1996-2003, to 53.8%. (In contrast, poverty levels elsewhere in the Pacific region dropped from 15% to 10%). Another factor in worsening poverty was changes in the law – especially the ‘Organic Law on Provincial and Local-level Government’ which underpins the decentralized system of politics and administration. This change began to undermine the delivery of public services, which have collapsed in many districts.<sup>23</sup> Since then, PNG with a birth rate of 2.8% per annum, has seen a steady fall in per capita living standards, despite the recent buoyancy of the economy.

33. Poverty in PNG is concentrated in rural areas where 94% of households below the poverty line live.<sup>24</sup> There is a large rural-urban divide with regards to both income and non-income development indicators. The rural poverty level (41%) was significantly higher than urban poverty (16%). Poor people commonly live in remote locations that are either mountainous, with high rainfall, poor soils, or live on flood plains that are inundated regularly, or on small islands. These poorest people have limited access to basic services, including health and education services, and to markets where they can sell agricultural produce in exchange for cash. They also have poor access to information and knowledge about important matters like health care, nutrition, and political developments. They cannot afford to buy foods to supplement diets that are low in protein and oils. They are often poorly represented politically and are ‘invisible’ from the main centers of the country.<sup>25</sup>

34. The highest poverty rates occur among households that have little or no cash incomes, that is, families that rely primarily on subsistence agriculture, hunting, gathering and fishing to meet household consumption needs. Vulnerable groups include (i) elderly people and widows without children to support them, (ii) single mothers, (iii) orphans and abandoned children, and (iv) disabled people.

35. The 87% of the population which is rural, consists of many of the poorest people living on the least productive land (covering three-quarters of the country) and in remote and isolated areas. Here poverty has become long term and chronic because the country's transport and communications network has deteriorated to the point where villagers who were once linked to main roads are now isolated and inaccessible. As a result, schools, postal (and banking) facilities and clinics have closed because infrastructure is not maintained, restocked or serviced, and professional staff refused to live in cut-off areas. These handicaps – taken together with land tenure systems that affect investment,<sup>26</sup> backward technologies, gender discrimination, insecurity, and natural disasters – have created a country that is characterized by reduced real incomes<sup>27</sup> and an ‘enclave nature of development [and]... high levels of inequality’.<sup>28</sup>

<sup>23</sup> John Gibson and Scott Rozelle, ‘Poverty and Access to Infrastructure in Papua New Guinea, Department of Agricultural and Resource Economics, University of California Davis, 2002, [www.agecon.ucdavis.edu/ARELibrary/WP/02-008.pdf](http://www.agecon.ucdavis.edu/ARELibrary/WP/02-008.pdf).

<sup>24</sup> World Bank *PNG Household Survey*, 1996.

<sup>25</sup> Bourke, M and T Harwood (eds), *Food and Agriculture in Papua New Guinea*, p.484, ANU, 2009.

<sup>26</sup> Traditional land tenure systems reportedly undermine rural development because land is not use as collateral for loans; nor is it leased or otherwise consolidated for more extensive use. For this debate see Tim Curtin, HartmutHolzknecht, and Peter Larmour, ‘Land Registration in Papua New Guinea: Competing Perspectives,’ State Society and Governance in Melanesia, Discussion paper, 2003/1.

<sup>27</sup> World Bank, *Papua New Guinea Poverty Assessment*, 2004.

<sup>28</sup> John Gibson and Susan Olivia, ‘Attacking Poverty in Papua New Guinea, But for How Long?’ *Pacific Economic Bulletin*.17, 2, 2002. For problems with statistically modeling poverty, see John Gibson, et al, ‘Mapping Poverty in

36. While most poverty in PNG is rural, urban poverty is also an issue and more visible with many settlements growing up around major towns. Twenty settlements a year are now founded in and around the capital, mostly on land belonging to villagers, for which rent is paid. Adults with children come from all over the country in search of work and services, particularly education which is increasingly unavailable as rural schools close. There are few jobs to be had. Only 2% of PNG adults are in formal employment. In Lae the situation is similar, although migrants there are able to return home by road more easily. Most living in the settlements have little interest in returning to the villages, as even if they have no jobs, housing or services, they still feel life is more varied in town and they are better off than in the village, where they may have lost access to land because their parents left a decade or more before. Gender may also play a role in this migration, as while women are still working hard in villages to grow food and cash crops, men's traditional occupations of cutting down forests for gardens, hunting, and fighting to defend their villages are now of little use, and many are reluctant to take up roles defined as women's, or to stay when there is little access to cash.

**Table 4: Calculation of Number of Poor in Relevant Coastal Provinces**

Region and Province	Actual 2011 Population*	Average Annual Growth Rate (%)**	Percent Rural***	Percent 'poor' (by region)****	Number of rural 'poor'
<b>Southern region</b>	<b>1,302,887</b>	<b>2.0</b>	<b>91</b>	<b>33.2</b>	<b>394,058</b>
Central	237,016	2.3	95		74,755
NCD	318,128	2.0	-		-
Milne Bay	269,954	3.8	93		83,351
Western	180,455	1.5	82		49,127
Gulf	121,128	3.3			-
Northern	176,206	2.5	85		49,725
<b>Momase Region</b>	<b>1,795,474</b>	<b>2.0</b>	<b>92</b>	<b>45.8</b>	<b>754,240</b>
Morobe	646,876	1.6	73		216,277
Madang	487,460	2.6	86		192,001
East Sepik	433,481	2.1	89		176,696
West Sepik	227,657	1.8	92		95,926
<b>Islands Region</b>	<b>959,694</b>	<b>2.3</b>	<b>87</b>	<b>33.6</b>	<b>280,741</b>
Manus	50,321	1.3	82		13,864
New Ireland	161,165	2.8	90		48,736
W New Britain	242,676	2.5	85		69,308
E New Britain	271,252	1.9	88		80,204
Autonomous R B	234,280	2.6			-
<b>Totals</b>	<b>4,058,055</b>	<b>2.1</b>	<b>91</b>	<b>40.2</b>	<b>1,429,038</b>

\* Census, Preliminary Figures, National Statistics Office, 2011

\*\* Actual growth rates, 2000-2011. Preliminary Figures National Statistics Office 2011.

\*\*\* World Bank Report 1988

\*\*\*\* The 'poor' are those who consume at or below the poverty line as defined in World Bank Report 1988-PNG, p 76.

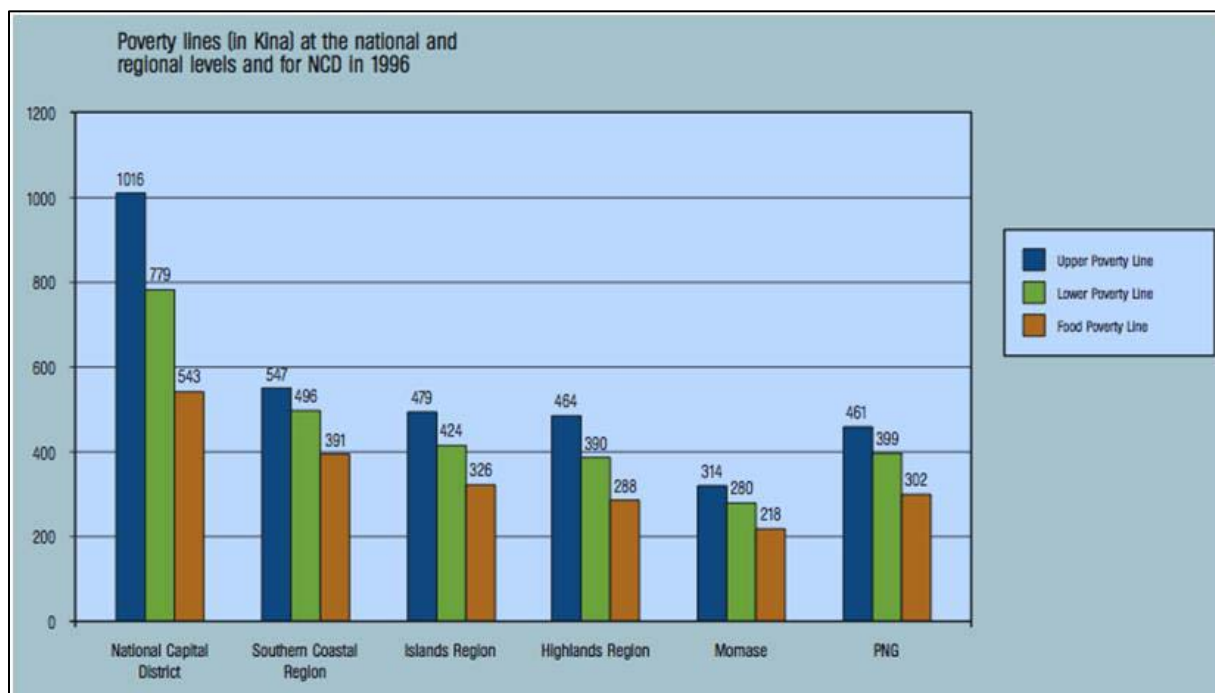
NB Figures from the 2010 Household income and Expenditure Survey are not yet available

37. PNG's poverty is related to the 'resource curse' in that income from mining, timber, oil, and gas exploitation has not been used on sustainable activities, or in creating public assets for long-term benefit of all the people, or more particularly, the rural poor. Many local groups suffer from adverse environmental and social changes, which accompany mineral and forest projects

in their areas, but have seen few benefits.<sup>29</sup> Between 2003 and 2011 a huge amount of customary land has been alienated from customary landholding communities through Special Agricultural and Business leases (SABLs). 5.1 million hectares of forests have been taken for up to 99 years, in the nine years since these leases were granted, covering 11% of PNG's total land area, and 16% of its remaining accessible commercial forest. Most of the SABLs were granted to unrepresentative landholders and subleased to foreign-owned corporations, a process which has received so much international condemnation that the PNG Government instituted a Commission of Inquiry into SABLs, which will be tabled in Parliament and made public after the elections in 2012.<sup>30</sup>

38. The extractive industries have also been blamed for 'distracting' the government from the real business of developing the non-mineral economy.<sup>31</sup> However, a more positive development in 2011, was the government announcement of a new policy, to create a sovereign wealth fund to manage all future mineral revenue. It is hoped that the fund will be able to encourage stable and sustainable increases in government expenditure by establishing a maximum drawdown rule, channeling all mineral funds through the budget, and investing unspent mineral revenue in offshore assets. If this is achieved and managed well, it offers some hope of improving PNG's poor poverty alleviation record, but much depends on improvements in governance.

**Table 5: Poverty Lines (in Kina) at National and Regional Levels and for NCD in 1996<sup>32</sup>**

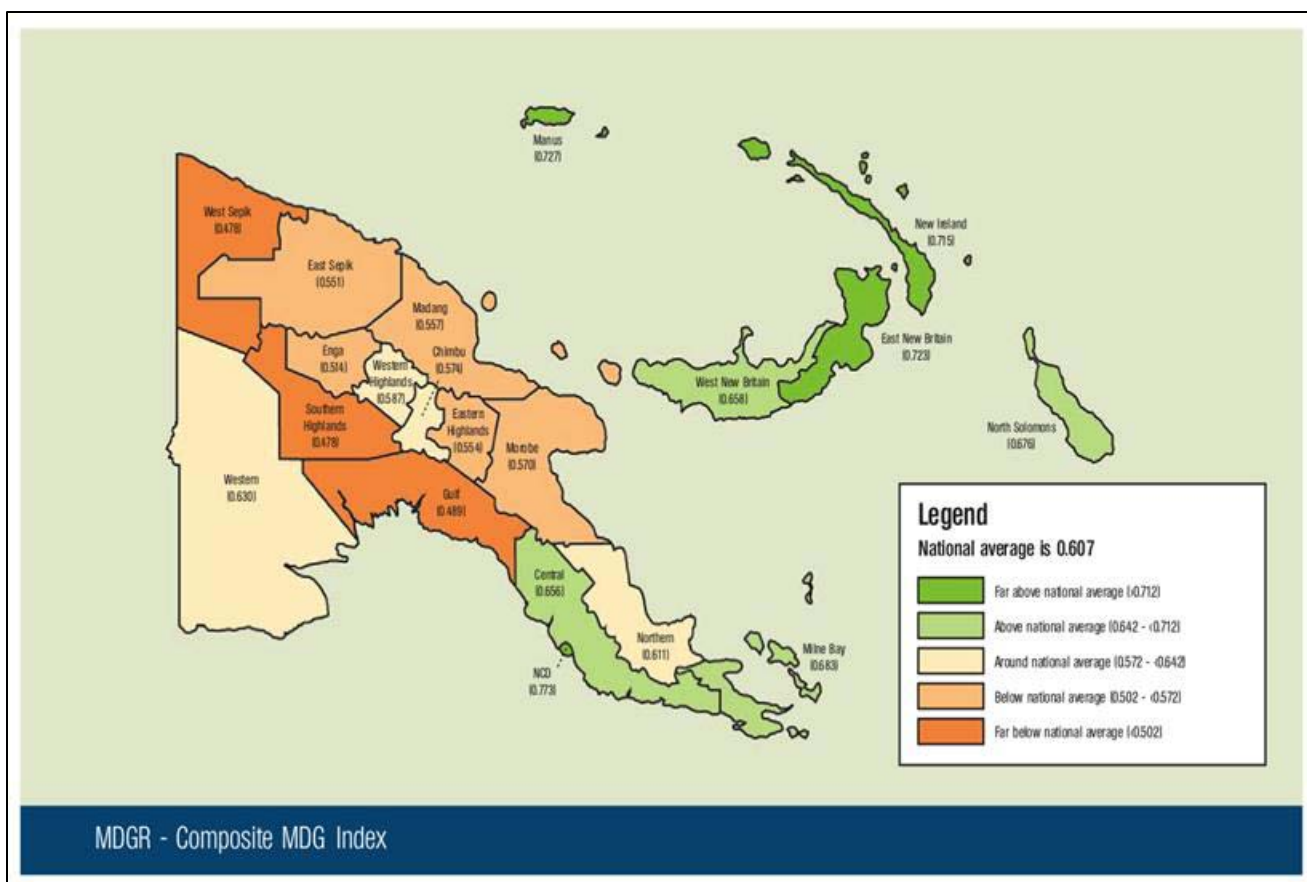


<sup>29</sup>World Bank, *Papua New Guinea Poverty Assessment*, 2004. For a review of forestry, corruption and their impact on PNG see [www.forest-trends.org/documents/png/index.php](http://www.forest-trends.org/documents/png/index.php).

<sup>30</sup>Greenpeace: *Up for Grabs: Millions of hectares of customary land in PNG stolen for logging*, Greenpeace Australia Pacific, August 2012.

<sup>31</sup>Commack, J. *Chronic Poverty in Papua New Guinea*, Chronic Poverty Research Center, 2008-9, p.29.

<sup>32</sup>PNG Government and United Nations, PNG, *Millennium Development Goals: Progress Report for Papua New Guinea* 2004, p.10.



**Figure 4: Composite MDG Map for PNG Provinces**

### C. Violent Conflict and Crime

39. The World Governance Indicators (WGI) ranks PNG below other major economies in the region, and the country's Medium Term Development Plan 2011-2015 recognizes that law and order, social unrest or conflict, and crime pose risks, especially in the delivery of services to rural populations.<sup>33</sup> In the capital, Lae, Mt Hagen and other larger towns, there is a high rate of crime and violence, which is related to the growing inequalities and to Papua New Guinea's history of tribal conflicts. Gender-based violence has become the norm with gang rape and wife beating especially prevalent. The high rate of unemployment and lack of education of many urban migrants has meant that many youth have no source of income and are now thought to be the source of crime in towns, which has major impacts on the economy.<sup>34</sup> Gun-related crime ('*raskolism*') is prevalent in the cities and in the five highland provinces. More traditional disputes usually related to land, pigs, or women, are settled by tribal fighting, but now sometimes using modern weapons rather than spears, bows and arrows. Elections too are often marred by violence and intimidation from gunmen, and even occasionally by gun-toting MPs. Highway hold-ups and sea piracy hamper the delivery of essential services and the development of a domestic market because people and goods cannot move easily. Villages often need to travel long distances for education, banking facilities or basic food which can become very difficult because transport is broken down or unavailable, and travel is unsafe.

<sup>33</sup> Asian Development Bank, *PNG: Critical Development Constraints*, Country Diagnostics Studies, Manila, 2012.

<sup>34</sup> Economist Intelligence Unit, *Press Release*, 3 Oct 2005.



40. Corruption is another factor undermining service provision and the productive use of state resources. Abuse of public office by politicians, often in return for votes and other support, and theft by public servants is common. The dysfunctional bureaucratic financial and political structures make it possible for politicians and administrators to ignore the regulatory environment and to use their 'discretion' to abuse their positions by misusing funds. The overstretched Ombudsman and courts do pursue offenders, but with little impact. In 2011, Transparency International's Corruption Perceptions Index ranked PNG 154/183 with a score of 2.2 out of 10 for corruption.

## **D. Health**

41. PNG has extremely low expenditures on health per capita.<sup>35</sup> Between 2000 and 2006, expenditures on health actually declined, and in 2008, provincial and local governments, which are responsible for rural health services, were spending only one quarter of the amount needed to provide a minimum level of services.<sup>36</sup> Over half of all health care is provided through church-run services, and non-governmental organizations play an increasing role in health care delivery.

42. Improving primary health care is one of the Medium Term Development Strategy 2011-15 (MTDS's) seven development priorities, but there is little evidence that health services are improving in PNG, and some evidence that health indicators are worsening. Delivery of health services is inherently challenging in PNG because of the country's rugged terrain and poor communications. However these are also aggravated by governance deficiencies, poor use of funds, and the inability of communities to hold government to account.

43. Health status in PNG is poor, the lowest in the Pacific Islands. Communicable diseases remain the major cause (50%) of morbidity and mortality. The infant mortality rate is 56.7 per 1000 live births while the under-5 child mortality rate is estimated to be 74.7 per 1,000 live births. The rates in urban areas are one half of that of the rural areas.<sup>37</sup> Life expectancy is estimated to be 54.2 years.

44. PNG has some of the worst maternal mortality statistics in the world, and the lifetime risk of dying in pregnancy for a Papua New Guinean mother is one of 20. "That is hard to imagine when you consider that the same risk if you are a mother in Australia is one in 10,000. In Milne Bay province that has 12,300 births a year, only one in six mothers will have a supervised delivery at a rural health facility".<sup>38</sup> The estimates of maternal mortality ratio for PNG are 733 deaths per 100,000 live births.<sup>39</sup> Women have specific needs related to giving birth and child rearing responsibilities. They experience disproportionate disadvantage from the current under-capacity and unsafe transport systems, which do not meet their specific needs. There is highly likely to be a direct causal relationship between high levels of infant and maternal mortality, the distance from the nearest adequate health services, and the availability of transport.

<sup>35</sup> Asian Development Bank. *Papua New Guinea: Critical Development Constraints: Country Diagnostics Studies*, Manila, 20012.

<sup>36</sup> National Economic and Fiscal Commission. 2009. *Walking the Talk: Review of all Expenditures in 2008 by Provincial Governments*. Port Moresby.

<sup>37</sup> PNG Demographic Health Survey National Report, 2006, p130.

<sup>38</sup> Kirby, Barry, *Maternal deaths in PNG*, O&G Magazine, Vol 13 No 3, Spring 2011, NZ College of Obstetricians and Gynaecologists p57.

<sup>39</sup> PNG Demographic and Health Survey National Report 2006, p110.

## 1. HIV and AIDS

45. The first case of HIV was reported in PNG in 1987. The annual incidence of new cases increased rapidly during the 1990s. In 2004, after the HIV prevalence rate among antenatal women was estimated to have passed 1%,<sup>40</sup> PNG became the 4th country in the Asia Pacific region to be designated with a generalized HIV epidemic. PNG currently has the highest HIV prevalence rate among Pacific island nations. This section summarizes the current situation, risk factors particularly as related to transport projects and the initiatives that are underway that have relevance for the ADB Safe Shipping and Rural Access project.

46. By 2009, the National AIDS Council recorded a cumulative total of 35,800 HIV infections in adults (aged 15–49) since 1987, with a total of 11,520 people estimated to have died due to HIV-related causes. In 2008, the totals included 12,432 (44%) males, 14,598 (51%) females and 1,264 (5%) where sex was not reported.<sup>41</sup> 4.0% of HIV infections are in children less than 15 years, and by 2009 there were 5,610 orphan children recorded due to AIDS. A total of 5084 newly diagnosed HIV infections were reported in 2008. In 2009, it was estimated that the overall HIV prevalence rate among adults 15–49 years old was 0.9%.<sup>42</sup>

47. Most HIV testing centers are in urban locations, which does not provide a true picture, as it is estimated that the epidemic is spreading faster through rural areas. In fact, nearly 87% of all HIV infected people are recorded as living in rural areas where the majority of the population lives. The incidence of reported HIV is higher among women (59%) than among men (40%) and the number of HIV-infected women is growing fastest.<sup>43</sup> (However, part of the difference may be due to the greater number of females being tested than males.) Women also tend to contract the disease at a younger age than men, the median ages being 27 in females and 33 for males. Approximately 60% of HIV-positive people in PNG do not know that they are infected. 93% of all reported HIV cases in 2008 were from the five Highlands provinces, Morobe, Madang (all provinces connected by the Highlands Highway) and in the NCD.

48. The total number of sexually transmitted infection (STI) cases reported, which are known to be associated with HIV transmission, increased from 21,213 in 2000 to 30,535 in 2008, representing a growth of 44%.<sup>44</sup> This is amongst the highest in the world. Over 80% were reported from the five Highlands provinces, contributing to the higher HIV risk in those areas. More than two-thirds of total STI cases in 2009 were diagnosed in females (67%) compared to 33% of cases among males, which may be partly because twice as many women as men attended an STI clinic.

49. Heterosexual transmission is the cause in the majority of reported HIV cases in PNG, and most cases occur among people aged 20 to 40. There is a wide range of factors affecting the spread of HIV/AIDS: patterns of sexual behavior including rape and sexual violence against women; early sexual debut, often in situation of coercion and abuse; extra-marital and inter-generational sex; multiple and concurrent sexual partnerships including polygamy; high rates of untreated STIs; exchange of sex for cash, goods, and services; low levels of condom use; gender inequality and poverty; and, increasing mobility and migration.<sup>45</sup>

<sup>40</sup> Data from the Ante-Natal clinic at the Port Moresby General Hospital, National Aids Council, 2008.

<sup>41</sup> National Dept of Health, *2008 STI, HIV and AIDS Annual Surveillance Report*, Sept 2009.

<sup>42</sup> National AIDS Council Secretariat 2009, *Papua New Guinea HIV Prevalence: 2009 Estimates*, Fact Sheet.

<sup>43</sup> National Dept of Health, *2008 STI, HIV and AIDS Annual Surveillance Report*, Sept 2009.

<sup>44</sup> Government of PNG, *Papua New Guinea Medium Term Development Plan 2011-2015* p.99, Port Moresby: Department of National Planning and Monitoring.

<sup>45</sup> National AIDS Council Secretariat, 2010, *PNG UNGASS 2010 Country Progress Report*.

50. Transactional sex is common, particularly in rural and peri-urban areas, where studies have found that 55% of women interviewed had exchanged sex for money, goods, or both, and 36% of men had paid for sex. As sex work and male-to-male sex are criminal offences in PNG, this increases hostility and violence against these populations and makes it harder for them to access condoms, prevention information and health care. Since 2011 there have been efforts to eliminate the punitive laws and practices around HIV transmission, sex work, drug use or homosexuality, which block effective prevention and treatment responses. At-risk groups include truck, bus, and Public Motor Vehicle (PMV) drivers, and dinghy operators; men who migrate for work, e.g., to development enclaves and towns; commercial sex workers who congregate near development enclaves and in urban areas; their clients, and partners of clients. Recent studies also revealed that more than two-thirds of young (15–24 years), unmarried men and women are sexually active with low rates of condom use. Married women and their children are also major at-risk groups as a consequence of men's behavior while away that often continues when they return home. HIV prevalence is variable but generally rising, and highest affected are those who make up the majority of the workforce.

51. The consequences are wide ranging, affecting social and economic conditions in PNG. There are growing concerns that the PNG workforce may be reduced by as much as one-third by the impact of HIV infection and AIDS deaths. Other projections foresee labor force reductions of 9–13% by 2025 depending on the level of response to the epidemic. Rural areas are where the impacts of HIV/AIDS will be greatest due to high prevalence rates and people's reliance on labor-intensive, semi-subsistence agriculture. Households and communities with members who leave the workforce because they are ill or to care for sick family members will confront losses of income that may result in growing food shortages. Health costs will increase, for individual families and the demand for services and treatment will affect the country as a whole. Overall economic performance of PNG will also be adversely affected.

## **2. Response to HIV and AIDS**

52. In 2003, the Government of PNG (GoPNG) adopted the HIV/AIDS Management and Prevention Act. MTDS identifies health, including combating HIV/AIDS as a priority expenditure sector. It sets a target for the provision of post-rape services to prevent HIV and STIs at 30% of health facilities by 2015.<sup>46</sup> The government's specific policies and strategies are set out in the National HIV and AIDS Strategy 2011–2015 (NHS). The overall objective of the NHS is to reduce transmission of HIV and other STIs and minimize their impact on individuals, families and communities. Its three priority areas are (i) prevention, (ii) counseling, testing, treatment, care and support, and (iii) system strengthening. Prevention activities aim to move beyond raising awareness to behavior change methods, to reduce the number of concurrent sexual partners, delay sexual debut, and promote consistent use of condoms. The NHS builds on previous national gender policy on HIV and AIDS and integrates a gendered approach across all priority areas. The National Aids Council has adopted this strategy while Provincial Aids Councils coordinate initiatives throughout the 22 provinces. The number of antenatal clinics providing HIV testing services has increased from 17 in 2005 to 174 in 2009.<sup>47</sup> The Department of Works too, has prepared a corporate strategy that requires contractor responses at construction camps.

<sup>46</sup> Government of Papua New Guinea, 2010, *Papua New Guinea Medium Term Development Plan 2011-2015*. Port Moresby: Department of National Planning and Monitoring.

<sup>47</sup> National AIDS Council Secretariat, 2010, *PNG UNGASS 2010 Country Progress Report*.

53. Australian Agency for International Development (AusAID) is the primary donor working in the field of HIV/AIDS and funds several initiatives. The SanapWantaim PNG program collaborates with government, the private sector and civil society organizations to support implementation of the NSP and Gender Strategy. TingimLaip is PNG's largest community based HIV prevention strategy operating in 36 sites across 11 provinces in settings with higher risk of HIV. It supports behavior change through access to male and female condoms, STI treatment, voluntary testing and counseling, and care and support for people living with HIV, with increased involvement of women and youth and a focus on gender based violence. Phase One began in 2007 and Phase Two in 2011, funded by AusAID.

54. Two ADB-funded projects specifically address women's vulnerability to AIDS at community level. The HIV/AIDS Prevention and Control in Rural Development Enclaves Project 2006–2011 partners with the National Department of Health and the operators of enclave enterprises to improve rural women's access to reproductive and sexual health services, and educates men on healthy sexual behaviors and gender relationships through workshops run by Population Services International. This same ADB project is promoting a social marketing program to encourage the use of condoms by truck drivers and sex workers along the Highlands Highway, among other at-risk groups.

55. The Lae Ports Development Project: Mobilizing the Private Sector to Respond to Gender and HIV/AIDS Issues 2009–2012 addresses gender based violence as well as STIs and HIV through workplace training programs and provides income generation training for people living with HIV, prioritizing single mothers, widows and sex workers.

56. The PNG Business Coalition against HIV and AIDS (BAHA) assists companies to develop workplace policies on HIV and AIDS which also address gender inequality and sexual harassment in the workplace. Peer Educators are trained to educate their co-workers and families and are responsible for ensuring supplies of male and female condoms. As of mid 2011, nearly one thousand peer educators have been trained (40% females) and 320 companies have BAHA-approved workplace policies.

57. The current NMSA contractor on the navaid's rehabilitation program, NAWAE has arranged training for staff under BAHA since 2008. Seven 'champions' have been trained to work on HIV and AIDS awareness. All are given a kit on graduation to help with training sessions, consisting of posters, games, dildos for condom demonstrations, and a chart of the VCT sites nationwide. NAWAE also has a strong policy against gender based violence, giving employees training in life skills which include discussion of violence against women; there is a policy of dismissing male employees who beat their wives.

58. Community Conversations is a long-term approach to motivating communities to face the epidemic and to address gender power imbalances. It is an initiative of the Department of Community Development with UNDP.

59. The Department of Education, coordinated by its HIV/AIDS and Gender Desk, has produced its HIV/AIDS/STIs Implementation Plan 2007–2012, with strategies for providing gender-sensitive, life-skills based and developmentally appropriate learning materials on sexual health and HIV prevention for all students, including those in trade and vocational schools. Curriculum materials for all levels are now complete, teacher training is in progress, and awareness is being undertaken with parents and communities.

60. A program for out-of-school youth sponsored by UNICEF, the National HIV Prevention and Sexuality Education for Out of School Youth program, is being rolled out in 2011 through the National HIV Training Unit.

61. The Four-Year Strategic Plan for the United Nations Joint Team on HIV and AIDS 2012–2015 is structured around the priority areas of the NHS. Gender initiatives will address the removal of punitive laws on sex work and male-to-male sex, the integration of services for HIV testing, antiretroviral therapy and Prevention of Parent to Child Transmission, capacity development for male and female leaders, increased support for men and women living with HIV, strengthened male and female condom programming, and will assist the mainstreaming of gender in the National AIDS Council Secretariat.

## **E. Education**

62. Progress towards achieving the Millennium Development Goal Two, of Universal Education, was significant in the years after Independence, but has started to slow in recent years. Basic Education comprises two levels. Elementary education is the first stage of formal education and consists of Elementary Preparatory Grade, Grade 1 and Grade 2, with instruction in the language of the child's community. These three years of education prepare a child for entry into primary school at Grade 3. Primary education caters for the 9 to 14 year age group. Lower primary education comprises Grades 3 to 5, and upper primary, Grades 6 to 8.

63. Over the last decade, there has been considerable overall progress, with enrolments in elementary education increasing fourfold since 2001. Reforms to the elementary education sector since 2007, including the expansion of places and gradual elimination of fees, have seen enrolment rates at elementary level triple across the country for males and females. Net admission rates for females increased from 11.2% in 2007 (11.9% for males) to 33.7% in 2010 (34.5% for males). Not all children enroll in elementary school at the correct age of 6 years old, and there are many over-age enrolments of children between 8 and 15 years, increasing the risk of children not completing their basic education. Absenteeism is estimated to range between 9% and 25% in different provinces on any one day.

64. Since the 1990s the education system has faced increasing difficulties in delivery of planned reforms to improve educational outcomes. There are problems in all areas: infrastructure, teacher numbers, teacher training, materials development and distribution, and capacity at all levels to manage, monitor and administer the system. The MTDS lists challenges as: "improving retention through the years of basic education; improving delivery of education services in rural and remote areas; completing reform of the secondary curriculum and supporting effective implementation of the curriculum at all levels; strengthening the vocational education and training sector; making better use of partnerships with the private sector and community agencies; and securing adequate government budget support to match the growth in enrolments."<sup>48</sup>

65. Differences in enrolment and retention rates at provincial levels are extreme, with the provinces of the Highlands Region (especially Southern Highlands and Enga) dragging down the national average indices. In general, retention, enrolment, and literacy rates in Southern and Islands regions are better than the national average. There is a significant gap between the relatively high educational performance in matrilineal societies and the much lower performance

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<sup>48</sup> GoPNG, PNG Medium Term Development Plan 2011-2015 Port Moresby: Department of National Planning and Monitoring.

in most patrilineal societies. This applies particularly to girls' education, as many girls are kept at home for domestic work, or are married at an early age.<sup>49</sup>

66. In comparison with most of the Asia Pacific region, PNG has low levels of educational achievement and adult literacy. Since 2000, it is thought that there has been an improvement in the literacy rate, which was 56.2% in 2000.<sup>50</sup> The adult literacy gender gap is significant, with 57% of men able to read and write but only 46% of women. The proportions of adult men and women who have ever attended school are 51% for men and 42% for women. However, among people who have ever attended school, only 43% of men and 33% of women completed primary level.

67. In 2006 almost 40% of the household population aged five years and above had no education or had not completed Grade 1 when surveyed. A further 40% had completed Grades 1–6, while only 20% had completed Grade 7 or higher levels of education.<sup>51</sup> The net enrolment rate in Grade 1 was 52.9% in 2007, while the net admission rate between ages 6–14 was only 11.5%.

68. Average class sizes in 2007 were 45 students per teacher, which has impacts on the quality of education provided. Access, retention and quality are the main policy objectives in PNG, but statistics indicate the severity of PNG's education retention problems.<sup>52</sup> Of the 61.7% of boys who have ever been to school, only 13.8% complete Grade 10, while for girls the picture is even worse: of 50.6% of girls who have ever been to school only 8.6% complete Grade 10.

**Table 6: Millennium Development Goals - Education Indicators**<sup>53</sup>

Population	Indicators	Females (%)	Males (%)	Total (%)
Millennium Development Goal (MDG)#2 Achieve Universal Primary Education: Ensure that by 2015 children everywhere, boys and girls alike, will be able to complete a course of primary education	Net enrolment rate in Basic (2007)*	51.4	54.3	52.9
	Net enrolment rate in Basic, (2010)	72.5	77.1	74.9
	Completion rate – Grade 8 (2007)	42.0	45.8	44.1
	Completion rate – Grade 8 (2010)	51.9	62.7	57.5
	Literacy rate of 15-24 year-olds, women and men (2009)	70.3	64.7	70.3
MDG#3 : Promote Gender Equality and Empower Women: Eliminate gender disparity in primary and secondary education preferably by 2005, and at all levels by 2015 (all figures 2010)*	Ratio of girls to boys in basic education (Elementary prep to Grade 8) (GER for males of 99.8 and females 90.5)	–	–	0.91

<sup>49</sup> GoPNG and United Nations, PNG, *Millennium Development Goals: Progress Report for Papua New Guinea* 2004, p.24.

<sup>50</sup> NSO, *2000 National Census Report, Volumes 1 & 2*, 2003.

<sup>51</sup> NSO, *Demographic Health Survey National Report*, 2006 p.15.

<sup>52</sup> National Dept of Education, *Education Statistics of PNG*, 2001; NSO: *2002 PNG Census Report*

<sup>53</sup> Figures from Department of Education (DoE) from 2012 census. Note that census data is not complete and has not yet been publicly endorsed.

Population	Indicators	Females (%)	Males (%)	Total (%)
	Ratio of boys to girls in secondary education (elementary prep to Grade 12) (GER for males of 77.8% and 69.9% for females)	—	—	0.90

69. In the previous MTDS 2005-2010, the GoPNG committed to the international goal of Universal Basic Education (UBE). The specific goal was to achieve UBE by 2015 by providing opportunities for children to complete nine years of basic education. However, the government now considers the goal of 100% enrolment and retention by 2015 as unrealistic, and has tailored the global target and incorporated modified goals in the MTDS.<sup>54</sup>

70. The national target is to achieve a Gross Enrolment Rate of 85% at the primary level by 2015, and a retention rate at this level of 70% by that year.<sup>55</sup> The National Education Plan (NEP)<sup>56</sup>, 2005-2014 aim is to expand school enrolments by more than 40% by 2014; and, achieve universal enrolment of six-year-olds in Grade 1 by 2012 (WB, 2007). However, with high population growth, the NEP proposal will only yield 80% net primary enrolments in 2014; it is not likely that PNG can achieve UBE before 2020 or 2025 at the earliest.

71. Secondary education consists of 4 levels: lower secondary (Grades 9 and 10) and upper secondary (Grades 11 and 12). Gender disparities become much greater at secondary levels and most girls who enter basic education leave by lower secondary school, often without basic literacy skills. This means they will be confined to subsistence farming, or poorly paid work in the informal sector, thus reinforcing the cycle of intergenerational poverty. This has long-term implications for infant mortality rates, fertility rates, and better child nutrition, all of which improve when females attend secondary schooling. Only one in sixteen females enrolls at upper secondary – or 6.1% (as compared to 8.9% for males).<sup>57</sup>

72. Secondary schooling is expensive in relation to the financial resources of most of the population, and many parents struggle to keep their children at school. Children from remote and isolated areas must travel long distances to school, or must board, which is expensive for parents who must provide food, fees and transport money.

73. Even fewer children attend tertiary education, and gender inequalities also persist through tertiary levels, including technical and vocational education and training. Males still represented nearly two thirds of enrolments at universities and made up 63% of graduates in 2009.<sup>58</sup> Patterns of enrolment reflect gender stereotypes with women studying education, nursing and management, while males dominate in accounting, economics, engineering and

<sup>54</sup>GoPNG and United Nations, PNG, *Millennium Development Goals: Progress Report for Papua New Guinea* 2004, p.24.

<sup>55</sup>GoPNG and United Nations, PNG, *Millennium Development Goals: Progress Report for Papua New Guinea* 2004, p.24.

<sup>56</sup>GoPNG, Department of Education, 2004. *Achieving a Better Future. A National Plan for Education. 2005-2014*. Government of Papua New Guinea, Port Moresby.

<sup>57</sup>GoPNG, Department of Education, 2009 (1). *Achieving Universal Education for a Better Future. Universal Basic Education Plan, 2010-2019*. Government of Papua New Guinea, Port Moresby, p. 36.

<sup>58</sup>GoPNG, Office for Higher Education, 2009. *PNG Higher Education Statistics*, Commission for Higher Education, Port Moresby.

law.<sup>59</sup> These patterns may be influenced by opportunities to enroll, increasing labor market segregation, or attitudes on 'appropriate' female professions.

74. There are only 9,000 places in technical and vocational education and training programs for 50,000 annual school leavers, and most training institutions focus on traditionally 'male' programs and often has inadequate facilities (sanitary and secure boarding) for girls and women.

75. Girls and women therefore have limited access to vocational training although females dominate on courses in hospitality and home economics. Female participation in the formal non-agricultural economy reflects the situation in tertiary education, being currently estimated at 5.7%, the lowest in the Pacific.<sup>60</sup>

## **F. Livelihoods and Rural Employment**

76. PNG is rich in gold, oil, gas, and copper with abundant forests and fisheries. However, the country has a dual economic structure. The formal market economy comprises enclave development for minerals, oil and gas, tree crops and logs that account for 70% of export earnings. Also part of the formal economy is the government sector, limited manufacturing and a small service sector. The resource-dominated growth path that PNG has followed over the past 30 years has not been pro-poor. Government attention to the development of the extractive industries, has been at the expense of other sectors and has inhibited employment and poverty alleviation in PNG.

77. Despite large revenues from minerals and forestry, there has not been equitable distribution of the profits, and there is a need to look at the non-mineral economy for sustaining future poverty reduction, as well as to governance deficiencies.

78. The informal or traditional agriculture sector provides livelihoods for 80–85% of the population. Rural livelihoods are based on combinations of subsistence farming of food crops; raising small animals for own consumption and sales; small-scale cash cropping, hunting and wild food gathering, and in coastal areas, fishing. In these activities, the family provides the labor.

79. Agriculture, forestry and fisheries sector contributed 26.3% of Gross Domestic Product (GDP) and 14.8% of total exports in 2000, excluding manufactured agriculture products. The value of major exports from 2004-2006 was 17% agriculture, 5% forestry, 1% marine products, and the remaining 55% gold and copper. The share of agriculture, forestry and fisheries, which is the mainstay of the majority of the people, has maintained its contribution to GDP, though there was a small decline from 29% in 1990 to 26.3% in 2000.

80. The contribution by value of the main cash crops to agricultural exports 2004-2006 was 30% palm oil, 26% coffee, 14% cocoa, 1% tea, 1% rubber, and 22% other smaller crops. Most cash crops are produced by small holders: 82% of coffee, 75% of cocoa, and 83% of copra, 68% of rubber, and 32% of oil palm.<sup>61</sup>

<sup>59</sup> Figures provided by GoPNG, Department of Education, 2011.

<sup>60</sup> Asian Development Bank, AusAID, World Bank, 2007, *Strategic Directions for Human Development in Papua New Guinea*, ADB, Manila.

<sup>61</sup> PNG Business & Tourism, [www.pngbd.com/forum/showthread.php?t=12751](http://www.pngbd.com/forum/showthread.php?t=12751).



81. Revenue projections in the 2012 budget are optimistic with cocoa, coffee, palm oil, rubber, and tea prices remaining near record highs, while prices of copra, copra oil, and copper are all expected to rise. The price of gold, which makes up almost half of export earnings, is forecast to be 20% higher in 2012 than in 2011.<sup>62</sup>

82. According to the ADB itself, the last decade of high economic growth has not benefitted the poor, but in fact has led to rising inequalities. While mineral exports and resource-project construction have meant a 30% increase in real per capita incomes from \$1,398 in 2002 to \$1,850 in 2011, this improvement has benefitted relatively few people. The link between economic growth and the welfare of poorer PNG is weak, and the country is not expected to meet any of the Millennium Development Goals (MDGs) by 2015.<sup>63</sup>

83. High inflation has also undermined any gains from greater government expenditure and improved commodity prices. The 85% of the population reliant on subsistence and cash crops have seen their purchasing power deteriorate rapidly in recent years, with many urban wage earners forced to live in informal urban squatter settlements with poor access to power, water and sanitation because of rising rental prices.

84. As it is, rural people living in areas with roads/wharfs and access to markets to buy and sell produce, or with opportunities to work (e.g., on plantations or mines) are relatively well-off. They live within the cash economy and are able to more easily satisfy needs above subsistence level. In areas where services still exist and land quality is satisfactory, subsistence farmers will manage even if they are isolated. But those people who are cut-off and living in minimally serviced villages and outside the cash economy are more likely to live at subsistence level, especially if their lands are poor. Poor services leave them vulnerable to disease, deaths during childbirth, illiteracy and the like. They are the most disadvantaged, but because of their isolation their plight is largely hidden from view. Moreover, this group is growing larger as the government withdraws from the rural areas, leaving these families with few ways of climbing out of poverty, except for migration to towns or rural areas with better land, roads and access to the cash economy, jobs and services.

## **G. Gender Analysis**

### **1. Gender Dimensions of Development: Constraints and Structural Barriers**

85. Gender inequality is a significant factor in terms of development outcomes for a Papua New Guinean. Women have poorer access to health services, and lower levels of educational attainment and literacy, all of which create barriers to equal participation in economic activities and political life. They also shoulder the main burdens of childcare, household domestic labor including water collection, and care of the elderly.

86. Much of women's work is currently undervalued, and their work in the subsistence economy, informal employment and the household does not feature in national accounts or in most policy-making. The majority of women lack access to information, credit, banking, and markets. The incidence of gender-based violence is high. The country's score on the Gender-related Development Index (GDI which aggregates eight key indicators that reflect the gender equity of development outcomes - a score below 1.0 indicating that women are disadvantaged

<sup>62</sup>Asia Development Bank, 2012. *Asia Pacific 2012 Outlook*.<http://www.adb.org/sites/default/files/ado2012-png.pdf>. Accessed 30 July 2012.

<sup>63</sup>Asia Development Bank, 2012. *Asia Pacific 2012 Outlook*.<http://www.adb.org/sites/default/files/ado2012-png.pdf>, Accessed 30 July 2012.

relative to men) is poor, with a GDI of 0.536 (ranking 106) in 2002, changing to 0.674 (ranking 140/187) in 2011.<sup>64</sup>

87. These factors are well recognized by government, and *The Second Progress Report* for PNG on the MDGs produced in 2010 notes:

*PNG's gender culture places women in a disadvantaged position. Gender based violence in particular is widespread and this is one of the factors that fuels the HIV/AIDS epidemic. This poses an enormous threat for future development and must be considered as a crosscutting challenge for the achievement of all MDGs. Moreover, PNG's very high level of maternal mortality is another clear indication of lack of empowerment of women.*<sup>65</sup>

88. Other dimensions of the situation in PNG are noted in the government's *Updated Country Report* to the UN Convention for the Elimination of Discrimination Against Women (CEDAW) Committee in June 2010 and summarized by the Minister for Community Development:<sup>66</sup>

*Although men and women have equal rights under the constitution and PNG is a signatory to CEDAW, gender inequality remains a severe impediment to development and one of the most visible violations of human rights. PNG can be characterized as a patriarchal society in which women continue to face, at times severe inequalities, in all spheres of life: social, cultural, economic and political.*

*Women in many parts of the country used to have more power in their society than they have today. Both colonization and development have been major contributors to the decline in the status of women. In terms of women's political participation, PNG is ranked 132nd in an international ranking of 138 countries; only one women representative sits in the National Parliament for the past decade, despite the fact that during this time the percentage of women contesting at the national level increased and the recent introduction of the limited preferential voting system was purported to favor women candidates.*

*Life expectancy for women in PNG is lower than that of men, whereas the reverse is true for most societies around the globe. These and other factors such as women's excessive workloads, poor nutrition, and lack of access to safe water, poor access to health centers, high number of pregnancies and high rates of family violence undoubtedly contribute to the significant gender disparities between female and male life expectancy at birth.*

89. The parallel Shadow Report to the *CEDAW Committee on Papua New Guinea* in June 2010, written by the PNG National Council of Women (NCW) affirmed the government's view but also emphasized the gendered impact of climate change of food security, the social impacts of rapid natural resource development, sorcery-related violence directed at women, law and order problems, and the challenges faced by minority groups such as refugees and women with disabilities.

<sup>64</sup>UNDP, Gender Related Development Index; [http://hdr.undp.org/en/media/HDR\\_2011\\_EN\\_Table4.pdf](http://hdr.undp.org/en/media/HDR_2011_EN_Table4.pdf).

<sup>65</sup>Government of Papua New Guinea, 2009, *MDGsSecond National Progress Summary Report 2009 for Papua New Guinea*. Port Moresby: Department of National Planning and Monitoring. p. ix.

<sup>66</sup>Independent State of Papua New Guinea, 2010, *Papua New Guinea Country Report on the Convention on the Elimination of All Forms of Discrimination Against Women*. Port Moresby: Department of Community Development.

## 2. Women, Men and Culture

90. In PNG, kinship principles determine group membership and have a great influence on gender relations, as do sex, birth order and generation. Kinship types vary enormously across different PNG cultures, but in general they are of two main types: matrilineal where membership of a kin group comes through the mother, and patrilineal systems where descent and inheritance is traced through the father's line.

91. These systems do not determine leadership roles, and matrilineal systems where the founding ancestor in the kin group was female, do not imply that women inherit leadership from their mothers. Rather, men and women inherit membership of the group and its property from their mother and her brothers, who usually exercise authority for the group. In other kinship systems membership in a group may be inherited through either parent depending on whether the person lives with his father's or mother's people.

92. Kinship still often determines whom a person can marry: in some cultures the decision involves an agreement between two kin groups to give each other a bride. Some societies in PNG give bride price, to recognize the value women have to the group, but others do not. However when a kin group gives a woman in marriage, they usually expect compensation for losing her in the form of marriage payments of food and valuable ceremonial goods, which nowadays may be replaced by money and modern goods.

93. While scholars have often described PNG as 'egalitarian' because of the lack of hereditary chiefs in all but a very few societies, this is not strictly true, as it certainly does not extend to gender relations where men in most cultures have a higher status than females. This is marked by many cultural constraints: practices such as polygamy, unequal inheritance laws, food taboos, restrictions on mobility, accusations of sorcery, and by other obstacles which prevent women from accessing many opportunities to improve their lives.

94. In traditional society, gender roles are different and unequally valued: women are responsible for most subsistence needs, gardening, gathering food, fishing, caring for domestic animals and for bearing, raising and feeding young children. Men clear the land, plant crops (especially those which have ritual significance), hunt, fish, build houses and fences, and protect their families or make war (in some societies).

95. Men are also responsible for the religious and political spheres, with competitive inter-group gift-giving, funerary contributions and compensation payments for the resolution of disputes. In the past, but less commonly today, boys were ritually initiated into the men's world, but there were also rituals around women's natural functions of conception, childbirth and infant feeding.

96. Rituals of manhood enabled men to give boys their cultural life, as against the natural life given to them by women.<sup>67</sup> In this way, many societies in PNG, perceive women and men as giving life and nurture to the next generation, moving between the spheres of nature and culture.

97. Many anthropological studies have confirmed that traditional gender relations in PNG were characterized by inequality and the subordination of women, as men benefitted from women's production to support their political ambitions and reputations. Nonetheless, women

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<sup>67</sup> Herdt, G. 1981. *Guardians of the Flutes: Idioms of Masculinity*. New York, McGraw-Hill.

often developed their own strategies to influence the male political arena, and because women produced much of the wealth that men controlled, they could become renowned for their productive activities.<sup>68</sup>

98. Polygamy served to support older men's prestige, as their wives could produce more food and pigs to give away in ceremonies, and it also gave power over younger men who depended on them to provide bride price. In Milne Bay early studies of the famous Kula exchanges ignored women's role in ceremonial exchanges in funerary rituals, which complemented the men's Kula cycle.<sup>69</sup> So despite their seeming marginalization from the political arena, women in many PNG societies played a significant role in men's achievements and won respect for this.

99. As producers of food, women traditionally had access to land in all PNG societies and in this sense could be considered to have rights to land. However women rarely had decision-making powers with regard to land. Traditional notions of property rights were very different from modern ones: land could be won or lost in wars, and use rights could be bestowed in different ways, but it was not a commodity to be bought, sold or leased.

100. Customary land is under the control of kin groups, and a woman's brother is usually responsible for any decision relating it, although marriage changes women's rights to land even in matrilineal systems. Women usually move to their husband's place and cultivate land belonging to his kin group, although in matrilineal systems, their children will inherit rights to their mother's land, controlled by their mother's brothers.

101. Matrilineal inheritance is practiced in Milne Bay, New Ireland, East New Britain, and the Autonomous Region of Bougainville. However, even in male dominated patrilineal societies, when a plot of land was given to a woman to make a food garden, she usually managed it without interference from men. This is not always the case, particularly now that longer-growing cash crops have been introduced.

102. Colonialism and modernization have profoundly altered the relationship between men and women, and many of these traditional norms no longer hold. The roles and status of males and females have been modified in response to the cash economy, new forms of education, urbanization, the impact of the global economy, and broader globalization trends. Papua New Guineans are still very attached to their own cultures and traditions (*pasinbilongtambuna*), but the changes in law, new national policies.

103. Christianity and influences from outside have generally challenged traditional gender relations. While the PNG Constitution guarantees equality to all citizens, in fact, women and men do not participate equally and modernization has frequently increased women's marginalization and vulnerability.

104. An example of this is the modernization and commercialization of bride price, which has been adopted by many societies where it was not formerly the custom, leading to inflation of monetary gifts, social pressures if it is not paid on time, marital conflicts, domestic violence and inter-group conflicts. In some cases, men can even inherit bride price debts from their fathers or be expected to make payments for their mothers' bride price long after her death.

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<sup>68</sup>Strathern, M. 1972. *Women in Between: Female Roles in a Man's World: Mount Hagen, New Guinea*. London, Seminar Press.

<sup>69</sup>Weiner, A. 1976. *Women of Value, Men of Renown: New Perspectives on Trobriand Exchange*. Austin, University of Texas Press.

105. Young men may be expected to wait for many years for a wife, and without any socially defined role as was the case in the past, young men are marginalized, and tend to develop informal unions without bride-price payments, which are likely to be fragile and unstable. Changed perceptions of the function of bride price have also increased men's belief that they 'own' their wives and therefore have absolute authority over them.<sup>70</sup>

106. In many PNG societies in the past, men lived in separate men's houses, which were centers for male political, magical, and ritual activity. Women lived in their own houses with their daughters and young or uninitiated sons. It has been suggested that the loss of this traditional practice may have undermined men's status in rural communities or encouraged more harmful expressions of masculinity.<sup>71</sup>

107. Overall, men's roles and responsibilities have probably been more affected by modernization than women's, since men are more likely to leave their villages to look for work or new experiences. Whereas once men had to work their way up within a framework of traditional values to achieve status and respect, now men can earn money outside their community and use it to buy status without earning it in the old ways. Many women complain that men are happy to abandon old traditions, but still expect them to maintain these, criticizing those who adopt modern fashions and values, and who aspire to equality in public life. "They use 'kastom' like a weapon to beat us with" they say of men who resent changes in women's roles.

108. Cultural mechanisms that enabled older men to control younger men and women have largely broken down in many provinces. Young women are increasingly exposed to risks of rape, prostitution and unstable polygamous marriages, especially in the Highlands. Young men are mobile and without responsibilities or accountability for their behavior, looking for excitement, money associated with making and consuming home brewed alcohol (stim or JJ), growing and smoking cannabis (spakbrus). Some engage in serious antisocial and criminal behavior such as burglary, highway robbery, piracy, fighting, and pack rape.

### **3. Gender in National Development Planning and Policy**

109. The Constitution of PNG and its Bill of Rights provides the basis for gender equality, while four other documents are key to development planning and provide policy 'space' for more specific programming:

- The long term Vision 2010-2050
- The 20 year PNG Development Strategic Plan 2010-2030 (DSP)
- The five-year Medium Development plan 2011-2015 (MTDP)
- The National Policy for Women and Gender Equality 2011-2015)

110. Vision 2050 identifies gender as a critical area to be addressed at all levels of government, business, and communities, including civil society organizations. It discusses the need to modify cultural beliefs and value systems, which marginalize the 50% of female population, and sees a need to sensitize young people, and to achieve MDG#3. The document does not take a comprehensive cross-cultural or structural approach to assessing gender

<sup>70</sup>Jenkins, C. 2005. *HIV/AIDS, Culture, and Sexuality in Papua New Guinea*. Manila, Asian Development Bank. <http://www.adb.org/Documents/Books/Cultures-Contexts-Matter/HIV-PNG.pdf>.

<sup>71</sup>Eves, R. 2006. *Exploring the Role of Men and Masculinities in Papua New Guinea in the 21st century: How to Address Violence in Ways that Generate Empowerment for Both Men and Women*. Sydney: Caritas Australia.

inequalities, but it does recommend two important outcomes: parity and equality in access to education, and non-discriminatory laws and policies.

111. The DSP, is a more useful document in that it includes indicators, baseline information and targets for women's empowerment, women's health, domestic violence, female to male school enrolment rates, females in tertiary education, and females in waged employment. It is designed to be "rolled out" through a series of five-year plans that will guide the budget allocation process. However, many topics discussed in the gender section, are not mainstreamed into relevant sectoral chapters, so for example, the Law and Order section does not mention women and violence or sexual assault, and there are other similar gaps.

112. The MTDP identifies seven sector strategies related to gender equality, with the notable gap of anything related to women's health, which is all the more puzzling given the appallingly high maternal mortality rate. The strategies are:

- Achieve equal access to education for all males and females.
- Increase the rate of functional literacy among girls and women.
- Increase women's access to economic opportunities and awareness of their economic rights.
- Enhance sustainable access by women to capital, markets, information, technology, and technical assistance.
- Mainstream gender in the bureaucracy, legislative, and judicial system.
- Ensure equal access to and full participation in power structure and decision-making.
- Prevent and eliminate violence against women and children by strengthening legislation on family welfare, child and women protection.

113. It is unfortunate that these aspirational strategies are not well linked to actual deliverables or outcomes for the next five years, which are limited to entrepreneur skills training for 100-300 women; publication of 15,000 leaflets on women's political participation; gender sensitization for one third of public servants; 2-4 new safe houses; and training of up to 300 police to respond to gender based violence. This means that most strategies and actions required to reach the 2050 Vision, the DSP and the MTDP will remain un-resourced in annual budgets.

114. The recently launched National Policy for Women and Gender Equality (NPWGE) has two objectives: to create an enabling environment for gender equality and to empower women to transform gender relations in all aspects of work and in all levels of government, including the wider society. Many of its action areas are based on the Beijing Platform for Action and the National Platform for Action. It includes an Implementation Plan with detailed objectives, strategies, performance indications and key actors under each of ten Action Areas. It also identifies the Department of Community Development as the lead ministry, but emphasizes the point that all government ministries should share responsibility for mainstreaming and implementation of the actions.

115. Unfortunately, as with the other policy documents, the NPWGE has not fully addressed gender mainstreaming across all sectors, its Implementation Plan does not link to specific goals and targets in the DSP and MTDP, and there is a resourcing gap, because although financial costs are provided in the Implementation Plan, they are underestimated and not reflected in the budget for the MTDP deliverables.

116. Apart from government, there are other important institutions in civil society and the private sector which are working on the development challenges posed by gender inequalities. These include NCW which has branches all over PNG, and which has a mandate to speak for women to Government and the public on issues affecting women.

117. Other examples of civil society groups giving voice to women's concerns are the Family and Sexual Violence Action Committee, the National YWCA, Papua Hahine, Eastern Highlands Family Voice, BAHA, the Coalition for Change, the gender desk at the Chamber of Mines and Petroleum and the Minerals Resource Authority, and various sectoral and professional association (PNG Women in Politics, PNG Women in Business, PNG Women in Agriculture, PNG Women's Maritime Association).

#### **4. Access to Resources: Education**

118. As noted above, the education of girls and women lags behind that progress made for boys and men. The GoPNG acknowledges that there is a significant gender gap in education and literacy, and chronic gender disparities in access and completion rates persist and grow larger as the education cycle progresses.<sup>72</sup> The literacy gap in the adult (15+) age group is 56.5% for females and 63.6% for males. There are few non formal or adult education programs for those who miss out on schooling.

119. In the remote rural areas, students often have to travel long distances to school, and this is made more difficult in coastal and islands regions where few roads exist and children must travel by canoe, dinghy or ship. Many parents are understandably concerned particularly about the safety of girls travelling long distances.

120. Because of the high levels of gender-based violence in PNG, girls in all regions are at risk, and these risks become greater at secondary levels, with fewer secondary schools serving wider catchment areas, requiring girls to travel even further distances often without protection. The severity of this personal insecurity is shown in research that shows that half of all reported victims of sexual abuse are under 15 years of age, and one in five assault victims are between 16 and 20 years.<sup>73</sup>

121. In the coastal regions of PNG provincial secondary school range from between four hours travel time from the average primary school to six hours away in remote areas.<sup>74</sup> This means the only option for secondary students in remote areas is boarding school, which becomes expensive for parents who must provide for transport and food supplements, as well as other educational costs, often well above average annual incomes. The lack of water or toilets reserved for girls is another disincentive for girls to attend school. Parents also fear that teenage daughters will become pregnant or be vulnerable to sexual harassment at school by other students or male teachers.

122. Cultural attitudes and discrimination in households are also an impediment to girls' education. Girls are more likely than boys to be required to do household chores, look after

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<sup>72</sup>GoPNG, 2009 (3) *Report on the status of women in Papua New Guinea and the autonomous region of Bougainville* 2008. CEDAW/C/PNG/3. United Nations, New York. p.24.

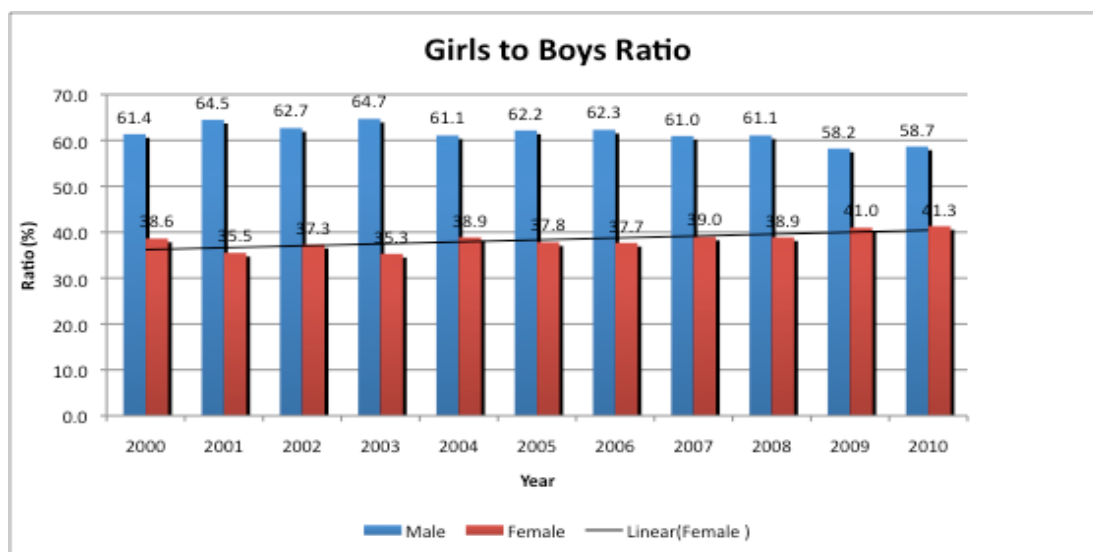
<sup>73</sup> Ibid.

<sup>74</sup>GoPNG, 2009 (3) *Report on the status of women in Papua New Guinea and the autonomous region of Bougainville* 2008. CEDAW/C/PNG/3. United Nations, New York. p.113.

younger children and help plant and harvest food crops.<sup>75</sup> Girl are also expected to marry young according to parental decisions, and become gardeners and homemakers.

123. Educating boys in many families is seen as a better investment for the future of the family. If parents cannot afford school fees, uniforms and other expenses to see all their children to school, they are more likely to send boys or older children in the family to school.

124. Apart from these significant barriers to girls' education, the rugged geography of the country, poor communications, and slow, unsafe and expensive transport all contribute to the difficulties girls face in obtaining an education. In addition, where there are local conflicts and natural disasters, education is disrupted affecting school attendance and learning outcomes. At higher education the gender disparities become greater, as the pool of potential female entrants to higher levels of study is limited by the lower numbers completing primary and secondary school, but there are also limited facilities to meet the special needs of young women. Affordability of tertiary education is another key constraint.



**Figure 5: Male/Female Enrolment Ratios at Institutions of Higher Education 2000-2010<sup>76</sup>**

125. While gender equality in education is a policy priority for the government, neither Vision 2050, nor the PNG Development Strategic Plan 2010-2030, nor the NEP 2, identify strategies, programs, or budgets for achieving gender parity goals. Instead it is believed that if PNG can work towards UBE with 100% enrolment, then this will close any gender gap in educational opportunities. Training in gender planning at provincial and district level is mandated through the *Gender Equity in Education Policy (2009)*<sup>77</sup> and a *(Draft) Gender Equity Strategic Plan (2009 – 2014)*. However, implementation continues to be constrained by weak capacity at provincial level, with limited human and financial resources. There are few women in senior management roles in the public sector and the education sector is no exception. In 2011 there was only one woman at Assistant Secretary level in the department, and there is an imbalance in the number of male and female teachers: in 2010, 46% female at primary level, 38% female in lower secondary school. There are no women holding positions at the highest teaching levels (TS10

<sup>75</sup>Government of Papua New Guinea/UNDP, 2004. *Papua New Guinea. MDG Progress Report, 2004*. UNDP. New York.

<sup>76</sup>Source: Data provided by Commission for Higher Education, 2011.

<sup>77</sup>The 2009-2014 *Gender Equity Strategic Plan* follows the 2002 *Gender Equity Plan*.



and TS11)<sup>78</sup> and only 32% of lecturers at teacher training colleges were women, and there were no women at the Principal level.<sup>79</sup> In 2009 only 26% of head teachers were women.

## 5. Access to Resources: Health

126. The crisis in the health sector has most serious impacts on women, who suffer many forms of disadvantage relative to men, and who are the greatest users of health services, particularly maternal and child health services (MCH). Poor health services place women's lives at risk in childbirth and reduce the chances of their children surviving infancy and early childhood. By 2010, only 66% of aid posts remained open and the ability of health centers and hospitals to provide outpatient and inpatient services has declined steadily. Only 80% of facilities have the ability to be reached by telephone or radio, and supplies of essential drugs are available only 85% of the time.<sup>80</sup>

127. The closure of so many aid posts, and limited services of many health centers means that women (usually with their children) have to travel further, incurring greater costs for transport, facing risks to their personal security, and opportunity costs through longer times away from home and the daily burden of childcare, food production and other labor-intensive household chores. These problems are exacerbated by the fact that many outreach clinics from rural health centers to remote villages for immunization, antenatal care, nutrition monitoring and family planning have been restricted. All these factors result in worse health outcomes for rural women.

128. Women's lack of empowerment at the household level, and the unequal gender relations between men and women also influence health outcomes. Although reproductive health is perceived as women's business, it is men who often make key decisions about service use, and whether to provide cash to cover transport costs for women and children. Since men own land and property, and have greater access to employment, women often have to rely on them to provide money for health care and transport. Although MCH services are supposed to be exempt from fees, some facilities still charge them, which discourages use.<sup>81</sup> Even higher fees are sometimes charged to treat injuries resulting from acts of interpersonal violence, an intended deterrent, which impacts negatively on women survivors of domestic and sexual violence.

129. Women's education also determines their health status and access to services. Women who have completed Grade 7 or higher, have better health status, because educated women (and men) are more likely to use modern contraceptives, to attend antenatal clinics and to ensure their children are immunized.

130. The maternal mortality ratio of 733 deaths per 100,000 live births is the second highest in the Asia-Pacific region, following Afghanistan. Every year 1,500 women die from childbirth related causes, and for every woman who dies, another 30 will suffer lifelong consequences related to complications sustained during pregnancy and childbirth. The lifetime risk for rural women of dying from childbirth related causes, are almost double the estimate for urban

<sup>78</sup>GoPNG, Department of Education, 2009 (2). *Gender Equity in Education Policy. Guidelines for Implementation*. Government of Papua New Guinea, Port Moresby, p.17.

<sup>79</sup>GoPNG, Department of Education, 2010 (3) "Teacher Appointment Data for Teacher Training Colleges". Data set provided by DoE, 2011.

<sup>80</sup>National Department of Health. 2010. *Annual Sector Review. Assessment of Sector Performance. 2005-2009*.

<sup>81</sup>National Department of Health. 2009. *Ministerial Taskforce on Maternal Health in Papua New Guinea*. Report. Waigani. p.12-13.

women, which is related primarily to access to and quality of health facilities. While 88.1% of urban women deliver with professional attention, only 47.5% of rural women do. 49.7% of rural women still give birth at home, while only 9.6% of urban women do not deliver in a hospital or health center.<sup>82</sup>

131. While differential access to health services is a major determinant of health status, there are other determinants, such as malnutrition, which are also gendered. Malnutrition is widespread in PNG and particularly affects women and children.<sup>83</sup> Because of women's lower status, when food is scarce they may be less likely than men to have access to highly valued foods with protein and fat. More women suffer from anaemia, and chronic energy deficiency, than men. Rural populations, particularly those in isolated regions with no access to cash, are vulnerable to hunger and malnutrition in periods of chronic food shortages.

132. In response to reports revealing the serious state of maternal health the National Department of Health (NDOH) with collaboration from its development partners, has launched a number of initiatives to address priority issues. A National Maternal Health Response began in mid-2010, with four technical positions set up within the NDOH to lead the response. A Rural Primary Health Services Delivery Project 2011-2020 has started with assistance from the ADB and AusAID, the private sector and other non-state agencies. It is focused on strengthening rural primary health care services through setting up Community Health Posts particularly for the rural majority, especially women and children. It contains a Gender Action Plan specifying targets for ensuring gender responsive programming.

## 6. Gender Based Violence

133. Violence against women, especially at times of war and conflict, is common, tolerated, denied and mostly not reported. In Papua New Guinea there is an extremely high incidence of rape and sexual assault of women and girls. Research conducted by the Papua New Guinea Medical Research Institute found that 55% of women interviewed said they had been forced into sex against their will, mostly by men known to them. Men who participated in the same study described gang rape as a common practice and approximately 60% of men interviewed indicated they had participated in rape of this sort before.<sup>84</sup>

134. Physical and sexual violence by a husband or intimate partner has profoundly negative effects on women, and their children, including unwanted or mistimed pregnancies, high risk pregnancies, inadequate birth spacing, a high incidence of low birth weight babies, higher prevalence of STIs and HIV, and maternal deaths. Such violence also undermines women's confidence, restricts their mobility, and consequently their livelihoods. National studies in PNG have found that the majority of women experience male violence during their lives, with two out of three women experiencing physical violence from their husband or partner, and one out of two women experiencing forced sex.

<sup>82</sup> National Statistical Office. 2006 *Papua New Guinea Demographic and Health Survey: A National Report*.

<sup>83</sup> Dundon, Alison. 2004. "Tea and tinned fish: Christianity, consumption and the nation in Papua New Guinea". *Oceania* 75 (2), 73-88. Hide, R.L., Allen, B. J., and Bourke R.M., 1992. *Agriculture and Nutrition in Papua New Guinea: Some Issues*. Port Moresby: Institute of National Affairs Discussion Paper No. 54. pp.1-36.

<sup>84</sup> The data is based on a study by the National Sex and Reproduction Research Team and Carol Jenkins. The study involved 423 interviews with men and women and 61 focus groups representative of 82% of the population. The results are summarised in Bradley, C. & Kesno, J, "*Family and Sexual Violence in Papua New Guinea: An Integrated Long Term Strategy*. Report to the Family Violence Action Committee of the Consultative Implementation and Monitoring Council, Discussion Paper No. 84." Institute of National Affairs, Port Moresby, 2001, pp. 8, 12 -13.

135. Gender based violence has exacerbated the spread of STIs in PNG, which has a generalized HIV epidemic with national prevalence rates of 0.9% (though rising to 9% in high-risk populations). Gender inequality is a major driver of the epidemic. Women and girls are more vulnerable to HIV infection than men and boys because of biological factors, and less able to protect themselves because of the many economic, social legal, political, and cultural disadvantages they face. More than two-thirds of total STI cases in 2009 were diagnosed in females (67%) compared to 33% of cases among males. Women are often at risk from their partners, particularly in polygamous relationships, or when men have migrated for work. There is an increasing problem of young women engaging in transactional sex, or being trafficked for sex, especially in areas with large scale mining, logging, fisheries or plantations. There are also reports of fathers selling their daughters for sex in order to pay for guns at times of tribal fights.<sup>85</sup>

136. Studies have found that it is women who experience financial hardship, such as widows, divorced or deserted women, and young women with low levels of education who engage in transactional sex to subsidize their income. They do not necessarily perceive themselves as “sex workers”. Sex work and male-to-male sex are criminal offences in PNG, which increases prejudice and hostility against these groups and makes it harder to ensure they can access condoms, prevention information, and health care. This adds to the risk of their clients and partners. There has been some strong advocacy to have laws changed, but this faces opposition from political and religious groups.

137. A further problem stems from calls for pregnant women to be tested for HIV in antenatal clinics and labor wards, to prevent parent to child transmission of the virus. However, male partners are not tested at the same time, and women therefore fear that they are likely to be blamed (and often subject to violence) for bring HIV into the family if they disclose a positive test result, even when they know it was their husband who infected them.

138. Violence against girl children is also high in PNG. Traditionally, betrothal and marriage of children was customary in many communities.<sup>86</sup> However, social breakdown has led to corruption of traditional practices and violence against girl children is widespread.<sup>87</sup> It has reported that young girls are particularly vulnerable to sexual violence within the home environments, as perpetrated by male caregivers and relatives, who take advantage of young girls’ reliance on them for basic necessities such as food, shelter, and school fees.

## **7. Employment, Livelihoods and Economic Resources**

139. PNG’s dual economy reinforces gender differences and disparities in employment. Only 5.2% of PNG’s population is employed in any of the formal sectors (mainly export-oriented, capital intensive mining, forestry and plantations), and most are men. The natural resource boom in PNG has however, increased some women’s workloads, as men migrate to urban centers of mining enclaves for work, leaving rural women to manage farms and look after families alone. The benefits of migration often do not justify the substantial social and capacity risks for women, whose physical burdens and social vulnerabilities increase when communities are depleted of adult male workers. PNG men are highly mobile in cycles of migrant labor.

<sup>85</sup> M. Kopi, R. Hinton & S. Robinson: *Interpersonal Violence in Southern Highlands Province*, Oxfam PNG, Aug 2010; Oxfam PNG Report: *Kup tribal fight situational analysis*, 2009.

<sup>86</sup> Mead, M. *The Mountain Arapesh. Volume III. Stream of Events in Alitua*. New York: The Natural History Press. 1971. p.51.

<sup>87</sup> Help Resources. 2005. *A Situational Analysis of Child Sexual Abuse and the Commercial Sexual Exploitation of Children in Papua New Guinea*. Port Moresby. UNICEF PNG, Unpublished report.

Migration of husbands to urban centers and extractive industries results in higher levels of young female headed households (15–29 years) in rural areas, and a deeper level of rural female poverty.

140. The mining and energy sector generates revenues that support the public sector, which employs the largest number of people in formal sector employment, predominantly men. In 2007 there were 76,000 public servants, but only 1,874 (25.7%) were women, and only 12% of them were in executive management positions. There is only one female national judge out of 27 judges, and the first female law lecturer was appointed in 2005. There are also few women in managerial positions in larger businesses.

141. Women's low participation in the formal workforce results partly from inequalities in secondary education, lack of literacy and numeracy, but also from their difficulties in gaining employment and promotion. Added to that, male partners are sometimes jealous and suspicious of women, which leads to domestic problems. Some studies have revealed that an alarming proportion of women are intimidated by men simply because they work in paid employment, and 70% of women interviewed mentioned domestic violence as a problem faced by working women.

142. While women are underrepresented in all areas of the formal economy compared to men, their contribution to the economy is large, as PNG's annual food production, largely the responsibility of women, has been valued at \$55 million per year. The 2000 census found that 2.4 million people were employed in the total population at that time of 5.2 million, and of those, 10% were in the formal wage economy, compared with 67% engaged in subsistence or semi-subsistence employment. Women make up a large proportion of those in the private sector, not only in subsistence agriculture, but in market gardening, export crop production, and petty trading. Their dominance in marketing and the service sector, however, does not mean they face fewer problems: these include physical insecurity and violence, poor sanitary and personal safety conditions, and a lack of planned facilities in markets. Despite their valuable contribution to the economy their situation is often precarious, as they are less likely to have title to land, and are disadvantaged by marriage and inheritance customs and practices. They face difficulties in accessing finance and credit, as unsalaried women require a salaried husband as guarantor and other documents endorsed by a person in authority such as a pastor or local Ward Councillor.

143. Much of women's work is currently undervalued, and their work in the subsistence economy, informal employment and household frequently does not feature in national accounts or economic policy making. Planning and budgeting processes in PNG are rarely based on gender analysis and strategies to reduce gender disparities.

## **8. Agriculture, Forestry and Fisheries**

144. **Natural Resources:** Women in PNG have use rights to cultivate land, gather forest products and to fish for or collect marine and riverine resources. However, regardless of whether their society's inheritance systems are based on patrilineal or matrilineal principles, they are rarely considered to have ownership rights over productive resources. Planting annual food crops does not secure long-term use rights over land, but when longer growing perennial crops such as cocoa, coffee, oil palm, and coconuts are planted these become semi-permanent markers of property rights and confer status on the men who control them. When customary land is leased for plantations, logging, mining, or government purposes, women seldom take

part in negotiations, nor are they usually considered to have the right to claim a direct share of leases, royalties or compensation payments.

145. Approximately 60% of the total area of the country is covered by natural forests (about 29 million hectares of land).<sup>88</sup> In many PNG societies women make extensive use of forest resources for food, firewood, medicine, and materials for handicrafts. Men use forest for hunting, cutting trees for building materials, and clearing forest for new food gardens. In swampland forests sago palms provide the staple food resource for people living in riverine areas. Men and women cooperate to produce sago: men fell and split the palms and construct sluices and women extract, wash, store and cook the sago starch. Mangrove forests play very important ecological and cultural roles in the lives of coastal communities; women harvest various mollusk and crustacean species from these areas for food, and for sale if there are accessible markets. Mangrove forests serve a wide range of uses from house construction to fuel wood and breeding ground for fisheries and reducing coastal erosion from the action of sea waves and tide.

146. PNG claims an Exclusive Economic Zone of 5,957 million square kilometers, which includes 17,000 kilometers of coastline. Over 400,000 coastal peoples of PNG own marine resources under customary tenure and depend on them to varying extents for their livelihoods.<sup>89</sup> Thousands more depend on the aquatic resources of the country's great river systems. Women tend to focus on habitats that are closer to the shore, such as sheltered coastal reef and lagoon areas, while men tend to target the outer reef. The differences in habitats targeted by men and fisherwomen also depend on the availability and accessibility of fishing grounds; when outer reef habitats are very close to shore and easily accessible, there are few gender differences in habitats targeted.

147. **Agriculture:** Women farmers with access to a market are likely to sell produce to provide intermittent amounts of cash for buying food from shops and for other recurrent household expenses. Income from cocoa, coffee and oil palm is usually considered to belong to the man who controls the smallholding, and is less likely to be contributed to the household. Disputes over allocation of income are a major source of conflict in PNG households. Because men assert ownership of cash or commercial crops, does not mean women do not contribute their labor to production of them. Women are estimated to contribute 50–70% of agricultural labor in activities such as clearing, planting, weeding, harvesting, processing, transporting, storing and marketing. This includes both cash and subsistence crops. It has also been found that women work more hours than men in all productive and household work, with the most equitable gender participation in cash crops such as coffee, but women still work more hours on coffee than men.<sup>90</sup>

148. While both women and men face constraints in agriculture such as the lack of access to technologies, inputs and information, women face more severe constraints because they cannot access credit, lack decision-making control over land use, and are less likely to be reached by extension services. Agricultural publications for farmers tend to emphasize commercial crops for export, rather than domestic production, thus ignoring women's role as food crop producers and

<sup>88</sup> Amos, T.G., 2011. *Safeguarding The Resource Base: State of Papua New Guinea's Forest And Land*. [http://www.inapng.com/pdf\\_files/Goodwill%20Amos%20-%20PNGFA.pdf](http://www.inapng.com/pdf_files/Goodwill%20Amos%20-%20PNGFA.pdf).

<sup>89</sup> Hyndman, David. 1993. *Sea Tenure and The Management of Living Marine Resources In Papua New Guinea*. *Pacific Studies*, 16:4. pp. 99-114.

<sup>90</sup> Overfield, D. 1998. An investigation of the household economy: Coffee production and gender relations in Papua New Guinea. *Journal of Development Studies*, 34:5, pp.52–72.

raisers of small animals. Even when training is offered to women, their participation is limited by their responsibilities for childcare and other domestic obligation.

149. **Fisheries:** Fishing is a major contributor to household livelihoods in PNG, as well as a major part of the agribusiness sector. While in some societies it is mainly men who fish, in others both men and women participate. Men have larger average annual catch rates than women, because they are more likely to be engaged in fishing for income, to specialize in fishing, and to spend time away targeting more distant and promising habitats. Because women have more household responsibilities, they are more likely to fish for the family meal, and to stop when they have enough to feed their family, and share with relatives and neighbors, while men keep fishing with the aim of selling the surplus. Both men and women sell catches, fresh from roadside coolers, smoked for markets, and in 'takeaway' forms as prepared meals. Women work in marketing fish at all levels, from roadside stalls to the export of tuna sashimi products.<sup>91</sup> In some parts of the country, women specialize in gleaning shallow inshore areas and reef flats for seafood.

150. PNG has several industrial fisheries targeting crayfish, prawns and tuna. Larger scale fisheries are a male domain, but as elsewhere in the world, women are the majority in onshore processing factories where they generally earn a minimum wage as unskilled labor. An estimated 7,000 women work in the PNG tuna industry, and because jobs for women without education are scarce, the competition for tuna processing and canning jobs is high, in spite of low wages, persistent reports of poor working conditions, including sexual harassment, lack of safe transport for women travelling from their homes, and myriad deductions from their pay packages, including high prices for 'services and goods' from the Company, and penalties for late arrival at work. Men employed in the tuna industry spend long periods away from home in uncomfortable conditions and with little support, while their wives and children must manage without them. In fishing ports there are high risks of transmission of HIV and STIs. While the tuna catch has a market value of over K1.0 billion, the benefits of the industry risk being undermined by the social costs to both men and women.

151. **Forestry:** Many communities in PNG rely on forests for livelihood needs. The commercial forestry industry which harvests round logs for processing and export often comes into conflict with local landowners who do not have access to forests being commercially cleared. The forest industry operates widely particularly in remote coastal areas of the country, and many households derive income from royalties, lease payments and wages paid to men. Women may also be employed in smaller numbers in reforestation programs or nursery work.

152. However, the negative impacts of the forestry industry fall disproportionately on women, as areas of land which are clear-felled are useless for agriculture, women must walk further to distant gardens often on poorer soil, and the poor practices of operators which result in soil being impacted by bulldozers in valleys so that it is impossible to farm. Degraded water sources and hunting areas result in poor quality drinking water, polluted stream and pressure on food resources. Both environmental and social impacts are similar to those documented for mining: logging camps made up exclusively of men, pose risks to local communities of alcohol abuse, social conflict, commercial sexual activity, and exploitation.

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<sup>91</sup> Kronen, M. 2008. Combining traditional and new fishing techniques: Fisherwomen in Niue, Papua New Guinea and Wallis and Futuna. *Women in Fisheries Information Bulletin Issue 18*. Noumea: Marine Resources Division Secretariat of the Pacific Community.

## 9. Extractive Industries and Gender Issues

153. The extractive industries on which the PNG economy depends, have many things in common: their location in isolated rural areas, their enclave characteristics, and their major social impacts on surrounding populations. Women do not share equally in the benefits of these industries but do bear a greater burden than men from the risks. Studies of the social and gender dimensions of extractive industries in PNG show large social impacts at the community and household level.<sup>92</sup> There are stresses on the family from having a mostly male workforce living away from their spouses and children. A concentration of male workers encourages a sex trade and increases the risk of child trafficking and sexual exploitation. These in turn, increase the risk of HIV/AIDs, social conflict and violence. The most extreme example of this conflict associated with mining occurred around the Panguna mine in Bougainville, but it has also been a feature of the Pogera mine in Enga, the Ramu Nickel mine in Madang, and in the Liquefied Natural Gas developments in Hela Province.

154. The influx of large amounts of money from compensation, royalty payments and wages can have a devastating effect on women's lives: new wealth enabled men to pay high bride prices and marry multiple wives, which destabilized marriage, increased domestic violence and was seen by many women as contributing to a decline in their status. It also leads to intergenerational conflict as older men took additional wives without helping younger men with no access to money to marry.

155. The environmental impacts of extractive industries takes land away from traditional uses, and can increase substantially the time it takes to collect water, firewood and food. The disposal of minerals waste in river systems can lead to long-term degradation of water systems which have negative impacts on women, men, and children in nearby communities.

156. Employment opportunities in extractive industries employ women mainly for cleaning and catering, but have allowed a minority of men from PNG to move into high-value jobs with significant family benefits including better education and health benefits. But there are also negative impacts on the male workforce who live in segregated living quarters characterized by high consumption of alcohol and cannabis, and infrequent access to family and community. This may have negative psychological impacts on the men themselves who must work long shifts and cyclical rosters, which are also hard on wives and children. In only one mine, at Lihir, did the companies decide to give women the opportunity to train as drivers of the large trucks and machines used in excavating the mine area and building roads. They hired a female trainer and encouraged all Lihirian women to apply. Eight women completed the training, most from Bougainville, and five gained employment. After one year, only two Bougainvillean women remained, as all the others decided they would stay at home and avoid the hostility of male employees, husbands and villagers. This demonstrates the difficulties women face and why they experience exclusion from opportunities to work in male-dominated areas. Very often women who enter the workforce in extractive industries, are suspected of actively seeking sexual adventures which discourages married women from working in places where men also work.

157. The extractive industries are now doing more to attract women to enter technical or operational jobs and attitudes may slowly change, but discriminatory laws, unequal access to technical education gender stereotyping by employers, and reluctance of female graduates to

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<sup>92</sup> Macintyre, M. 2011. *Modernity, Gender and Mining: Experiences from Papua New Guinea* in K. Lahiri-Dutt (ed. *Gendering the Field Towards Sustainable Livelihoods for Mining Communities*).

challenge male dominated industries prevents women from benefiting from employment in these industries.

158. Another initiative has been The Women in Mining Action Plan, finalized in 2007, which identified the socioeconomic problems caused by mining activities “including changes in traditional ways and culture; increasing population through in-flow of workers; loss of land and environmental degradation; social and family disruption (violence, increased alcoholism, prostitution, and sexual abuse; health deterioration; poor distribution of mining benefits and a lack of representation on mining matters.” The Plan has eight goals which aim to mitigate these negative effects, and give women and girls increased opportunities.

## **10. Access to Justice**

159. The Constitution of PNG expresses a clear commitment to the equality of all citizens, and places value on PNGan culture and customs. It is designed to protect human rights and eliminate discrimination. Protection of rights is the responsibility of the National Court, which has jurisdiction over human rights. District Court Magistrates deal with most matters concerning family, marriage and child custody, as well as civil matters up to Kina (K)10,000, criminal cases, village courts appeals and Administrative Tribunals. There are 70 District Courts and 400 Court Circuit locations throughout the country. There are many constraints on women’s access to the national and district courts. A journey to a regional center to access the court registry to file a complaint would present considerable difficulty and expense to most of the population, even if they were aware of how to do this. Most actions would require the assistance of a lawyer, which women often cannot afford or do not have access to. Courts struggle to manage increasing caseloads and there are lengthy delays.

160. Women are particularly disadvantaged by these conditions as they have less access to money, transport and education, which would make access to courts possible. Most rural women therefore have little access to justice as courts are distant and transport is poor. Even when women do get court orders for maintenance, custody or restraining violent husbands, they are difficult to enforce. Women de facto household heads are particularly vulnerable to sexual abuse, exploitation and violence.

161. With the conversion of land from subsistence to commercial cropping, women’s traditional inheritance rights and land access are increasingly under threat, but access to justice for women’s land rights are particularly difficult as land cases may run for years. Poor people rely disproportionately on access to community police and informal justice systems but if these are not accessible, not functioning well, or operate in discriminatory ways, women’s security is threatened. Land disputes, sexual and gender based violence, family, clan and tribal conflicts, are common in PNG, and require gender just institutions, and community-based prevention and dispute resolution systems.

162. For this reason, village courts were established, which are a strong institution, more accessible to rural people, being inexpensive and nearer. It is estimated that 13,000 officials conduct 1,000 Village Courts, hearing around half a million cases every year. They are regulated by the Village Courts Act 1989 (passed in 1974), whose purpose is to maintain harmony within the community through mediate and application of customary law.<sup>93</sup> Their effectiveness (especially for women) varies depending on the social cohesion of rural communities, the local cultural norms and customary laws, and the skills of the magistrates

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<sup>93</sup> Department of Justice and Attorney General. 2007. *Village Courts*. <http://www.justice.gov.pg/vc/>.



operating them. Some studies have found that women are less likely to pursue their rights in village courts than men, and some that the courts are more severe in their treatment of women.<sup>94</sup> PNG women have pointed out that as women do not have equal rights with men in custom, particularly in relation to marriage, village courts uphold customs that perpetuate the oppression of women.<sup>95</sup>

163. The CEDAW Committee has raised another issue in relation to justice for women. Sorcery and witchcraft accusations and torture or extrajudicial killing of some men and many women (especially old women) are becoming an increasing concern.<sup>96</sup> The belief is widely held in PNG that some people possess or have access to magical knowledge and powers to inflict injury, illness or death on others. When people get sick or suffer some other misfortune, rather than seeking natural causes, the common explanation is that it is caused by sorcery (sanguma). Sorcery accusations are mainly directed at women who are helpless to defend themselves, who lack male kin, or who are subject to discrimination of some kind. The Criminal Code does not currently recognize sorcery as a crime, but a new 'Sorcery Act' is currently being reviewed by the Constitutional and Law Reform Commission.

## **11. Access to Political Voice and Participation**

164. PNG ranks very close to the bottom of the scale for female political representation in the world, 137 out of 137. Since Independence there has been a maximum of two women in Parliament at any one term. In 2009 the government proposed appointing three women representatives to parliament but this was voted down 60 to 16. In 2010 the government tabled a constitutional amendment proposing 22 women seats in Parliament. The proposed law intends to improve participation and representation of women in Parliament and in provincial assemblies. However, political events have delayed the introduction of the Bill, and it is unclear whether it will be passed.

165. According to law, provincial assemblies are supposed to include one appointed woman member. The law also stipulates that two women should be nominated as members of all rural Local Level Governments nationwide, and one in each urban LLG. However, this provision is not being implemented, and few actually participate even if they are (rarely) nominated. Nor are women usually appointed to the boards of statutory bodies. Not a lot has been documented about women's roles in local government, and LLGs have remained male dominated, although there is one attempt in New Ireland Province to include more women at LLG level.<sup>97</sup> However local level governance does include many other stakeholders including women's associations, youth organizations, church leaders, branches of non-governmental organizations (NGOs), school committees and so on. It is in these types of organizations that women's political voice and participation is most noticeable.

## **12. Women's Use of Transport**

166. At the moment, data on men and women's use of transport, and numbers of men and women who work within the transport sector, is very limited. This makes it difficult to design,

<sup>94</sup> Mitchell, Barbara H., 1985. Family Law in Village Courts: The Woman's Position. In *From Rhetoric to Reality?* ed. P. King, W. Lee, V. Warakai, 81-91. Waigani: University of Papua New Guinea Press.

<sup>95</sup> Garap, Sarah, 2000. Struggles of Women and Girls— Simbu Province, Papua New Guinea. In *Reflections on Violence in Melanesia*, ed., Sinclair Dinnen and Allison Ley, 159-171. Canberra: Hawkins Press/Asia Pacific Press.

<sup>96</sup> Committee of CEDAW *Concluding Observations* 30 July 2010 para 28.

<sup>97</sup> Kuamin, Evah, Committee meets Women Leaders, *Post Courier* Port Moresby, Women Today Feature 22 July 2010.

plan, or monitor transport services. The 1995 'PNG Platform for Action' prepared for the Fourth World Conference on Women sets out the following action to be taken in the transport sector: "Strategic Objective: To provide safe and affordable transportation systems in rural and urban areas:

- Ensure women's needs such as safety, accessibility and affordability are taken into consideration when transportation policies are formulated.
- Develop and maintain a good system of roads throughout the country to enable women to remain on their lands and still have access to markets and services such as health and education.
- Encourage women to learn non-traditional skills such as vehicle and equipment maintenance.
- Encourage the use of non-polluting forms of transportation such as bicycles.
- Develop footpaths and bicycle tracks in urban areas."

167. There is no mention of maritime or waterways transport or women's needs within this objective. However, it is clear that lack of such transport has gendered impacts.<sup>98</sup>

- Firstly - a lack of access to water transport means that men and women, boys and girls enjoy unequal access to goods, services and information. A lack of transport limits access to schools and health care services. Due to security risks faced by girls, an unsafe system may be the impetus for parents to withdraw girls from school. Women through care giving and reproductive roles are likely to be more disadvantaged by poor access to healthcare centers.
- Secondly - without adequate maritime transport coastal women and men may be excluded from participating in political and community life.
- Thirdly - isolation means everyone has limited access to reliable sources of information, with implications for livelihoods, health and wellbeing of communities.
- Fourthly - unreliable routes and modes of sea and river transport increase vulnerability, especially of women and girls. It also makes it difficult for victims of violence to seek help and justice.
- Fifthly - poor, unreliable transport decreases food security, and increases the hours travelling to buy or grow food. It limits access of farmers to markets slowing productivity.
- Lastly - lack of transport limits men's and women's access to work opportunities and labor markets. This may result in men having to travel further away for work, and makes it difficult for them to return regularly. There is evidence linking seasonal and migrant labor with an increased risk of HIV transmission.

168. Overall, the unavailability of affordable modes of transport limits the mobility of men and women. In PNG, transport networks are frequently in poor condition, with about 85% of main roads and nearly all feeder roads impassable or abandoned during some time of the year. It is estimated that 17% of the population has no access to any road and 35% of the population lives more than 10 km from a national road. Shipping and air transport services to isolated communities are in decline and wharves and airstrips are falling in disrepair. However, a major

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<sup>98</sup>Papua New Guinea–Australia Transport Sector Support Program, *Transport Sector Gender Strategy and Plan*, May 2009, pp. 3-4.

advantage of sea travel over roads, is that they do not require expensive maintenance (although ships, of course, do).

169. Cultural perception that working on transport is a man's job contributes to the low representation of women working within the transport sector. Traditionally women paddled canoes, but with the introduction of new technology it is men who operate motorized canoes and banana boats. There are few, if any, women who own and operate ships and boats or who repair outboard motors. Apart from these factors, legislation and policies within the transport sector are often gender blind and do not actively uphold the rights of men and women to enjoy equal access to public transport, or to employment rights within the sector.

## **H. Governance and Decentralization**

170. PNG is a parliamentary democracy with a unicameral Parliament; the Prime Minister is elected by Parliament and appointed by the Governor General. However, politics in PNG is notorious for spectacular changes of allegiance, with former adversaries making improbable alliances and close allies suddenly becoming bitter foes, as was the case recently.<sup>99</sup> Elections held in 2007 resulted in the incumbent Prime Minister (Sir Michael Somare) being re-elected; he formed a coalition government between his party, the National Alliance Party, and 12 other political parties. In March 2011 the ailing Prime Minister went to Singapore for heart surgery where he remained until September when his family announced that he had retired. In August, the Opposition moved a motion that the Prime Minister's post was vacant. The then Minister of Finance and Treasury, Mr. Peter O'Neill was elected as Prime Minister.

171. Following Sir Michael Somare's return to PNG, this election was challenged as unconstitutional and a succession of court cases resulted in the election of the new PM being declared unconstitutional by the Supreme Court. Sir Michael threatened to put Mr O'Neill behind bars for illegally usurping his position. Parliament however, passed an amendment to validate the election. This resulted in a constitutional crisis in December 2011, which was only resolved following the national elections in July 2012, when Sir Michael, along with two former prime ministers, Sir Julius Chan and Pias Wingti, gave their support to Mr. O'Neill to form the next government.

172. The Parliament has 111 seats representing the 22 provinces and the NCD; members serve for terms of up to 5 years. Due to reforms instituted in 2001, the recent elections used the Limited Preferential Vote system for the first time, allowing voters to rank three candidates by preference. The only female MP in the previous government, Lady Carol Kidu, has resigned and since the Parliament voted against reserved seats for women. However, the new election in July 2012 has returned three women candidates to Parliament.

173. PNG has four main political parties, as well as a large number of smaller parties. However, the party system has traditionally been weak. There has been a strong emphasis on tribal and geographical ties as well as personalities as determinants of political alliances; most MPs have not primarily been concerned with delivering goods and services to constituents; and, the result was regular threats to the stability of the government.<sup>100</sup> The 2001 electoral reforms also included measures to stabilize and strengthen political parties and to control the behavior

<sup>99</sup> The Economist *Elections in Papua New Guinea: Land of the Unexpected*, 2 August 2012.

<sup>100</sup> ADB, *Country Strategy and Program – Papua New Guinea (2006-2010)*, 2006.

of members of Parliament.<sup>101</sup> The government elected in 2002 was the first in the country's post-independence history to serve its entire 5-year term.

174. The Constitution provides for free speech, and the government upholds the freedom of the media and freedom of religion. The government also recognizes the rights of workers to engage in collective bargaining and to strike. There are a number of civil society organizations that provide services and advocate for women's rights, environmental and other issues. Nonetheless, and despite recent reforms, PNG was ranked 154 out of 183 countries surveyed in Transparency International's 2011 Corruption Perceptions Index with a score of 2.2 out of 10.<sup>102</sup>

## 1. Decentralization

175. Government in PNG has three tiers: it is divided into (i) the national level; (ii) 22 provinces and the NCD; and, (iii) local government. Local government includes 89 districts (plus the Motu Koitabu Council and 3 urban local level governments in NCD) and 297 rural and 27 urban LLGs. The legislation that presently determines the structure, roles and responsibilities of the sub-national governments is the 1995 Organic Law on Provincial Governments and Local-Level Governments (Amendment No. 11, 2006).

176. Through this law, provinces were given legislative responsibilities related to the provision and management of services in the health, water, education, transport, communications and other sectors. A provincial law may also provide for the establishment and administration of village courts. As a result of the Organic Law, many local governments became ineffective, as the provincial politicians gained power, and few benefits trickled down to districts and villages.

177. The result is that services have deteriorated as LLGs with few resources cannot deliver, and there is increasing tension and competition between national and provincial politicians. The politicization of service delivery and strengthened ties between the political and administrative structure, means that some have described PNG as having a neopatrimonial state<sup>103</sup>, that is, one where informal political systems have more influence than in a modern democratic state where formal systems are the norm.

178. Political and development decisions are driven by sectarian (clan, religious, tribal etc) loyalties and needs, 'big man' power manipulations, and clientele list/patronage politics. A recent example of this, is that following the 2012 election results announcement in one province, the narrowly elected member announced that the LLGs who did not vote for him, would receive no benefits or development assistance during his term of office because of their disloyalty in failing to vote for him.<sup>104</sup> Corruption of state funds facilitates this type of governance.

179. The Provincial Assembly is composed of all members of Parliament representing the electorates in the province; paramount chiefs and LLG presidents in the province; and one woman appointed by the Provincial Executive Council. This means the relatively powerful provincial governments are not really popularly elected: LLG presidents were meant to be elected directly by the people, but in fact, are elected by LLG members and appointed to the Provincial assembly.

<sup>101</sup> Reilly, B. 'Economic decline and political reform in Papua New Guinea' in *Pacific Economic Bulletin*, Vol.17, No.2, November 2002.

<sup>102</sup> Transparency International Country Profiles, Corruption Index, 2011.

<sup>103</sup> Cammack, D., *Chronic Poverty in Papua New Guinea, Background Paper* 2008-9, p35, Chronic Poverty Research Center.

<sup>104</sup> Post Courier, July 2010.

180. The member of the National Parliament representing the province is the Governor of the province. The Provincial Executive Council implements laws passed by the Provincial Assembly or, as they apply to the province, the National Assembly. The provinces have the legislated authority to make and execute budgets. "...while the national civil service is paid by central government to deliver services at local level, its members take their day-to-day instructions from the relatively unaccountable and highly politicized provincial government."<sup>105</sup> Provincial revenues vary considerably: in 2005, the average amount of per capita recurrent revenue provided by the national government varied from a low of K76 per capita in Southern Highlands Province to K268 in Manus; the per capita revenues raised by the provinces varied from K4 in Bougainville to K329 in Western Highlands Province.<sup>106</sup>

181. Provincial and local-level administrations consist of a) Provincial Administrator (PA), b) District Administrators (DA) and c) extended services of National Departments. The PA is appointed by the National Executive Council; is supposed to oversee the work of provincial advisors in different sectors and other staff; and, coordinates and monitors the roles and functions of National Departments in the province. The DA is appointed following procedures for appointment of officers of the public service; carries out roles and functions as approved by PA; and, coordinates support services for LLGs within district.

182. LLGs are composed of elected ward councilors whose role is to maintain local services such as elementary and primary schools, aid posts and health clinics, water supply and electricity, village and town planning and improvement, law and order, dispute resolution and local environmental management. Unfortunately, capacity to implement is weak at local levels, and the national government has shown unwillingness to transfer funds to match functions or empower local levels of government to generate revenue itself.

183. In fact, "Politicians' benefits (except national MPs' salaries) are paid from provincial budgets, eating up some 40% of the money given in grants by central government to sub-national governments."<sup>107</sup> Funds available for service provision are minimal which means national staff working at operational levels in provinces and LLGs, have insufficient funding to implement programs or run their offices.

184. In PNG, there are a total 297 rural LLGs, with up to 3 per open electorate (district); there are 27 urban LLGs. In addition to the elected ward councilors, rural LLGs are also supposed to have two appointed members representing local women's organizations. Appointed members on urban LLGs include representatives of the PNG Trade Union Congress, the Employers Federation and women's organizations. All appointed members have full voting rights. Most LLGs have few if any resources and, therefore, have little or no impact on development in their communities. The councilors of the 324 LLGs are elected.

185. The national economy benefits from mineral, hardwood, and oil/gas extraction, but relatively few of the profits are used to improve public facilities or infrastructure for the reasons outlined above. The nation's administrative and political structures are highly decentralized (some would also say bloated and complicated), as a result of the 'Organic Law for Provincial and Local-level Government'.

<sup>105</sup> Cammack, D., *Chronic Poverty in Papua New Guinea, Background Paper 2008-9*, p. 39, Chronic Poverty Research Center.

<sup>106</sup> World Bank, *Strategic Directions for Human Development in Papua New Guinea*, ADB, AusAID and World Bank, 2007).

<sup>107</sup> Cammack, D., *Chronic Poverty in Papua New Guinea, Background Paper 2008-9*, p. 37, Chronic Poverty Research Center.

186. This structure of government is widely recognized to be dysfunctional<sup>108</sup> as there is a disconnection between central and local levels, such that sector policies designed in the capital are not implemented effectively in the districts. This is not only because funding is insufficient, but also because a large percentage of sector funds is spent on staffing rather than operations. Complicating the issue is the politicized service delivery and the fact that senior staff may work for one level of administration (e.g., central government) while junior staff work for another (district or province), which results in poor discipline. Moreover, the delivery of service, is complicated by overlapping authority. Understandably, when resources and effective management are scarce, civil servants are de-motivated and demoralized.<sup>109</sup>

187. Government has redesigned its Medium Term Development Strategy, though efforts to turn this into program frameworks have been slow. There is no Poverty Reduction Strategy. Donors, especially AusAID, support government's policy priorities, providing more than \$250 million per year in development assistance. ADB provides a further \$241.12 million (loans, technical assistance and grant approvals to Dec 2011)<sup>110</sup> and the World Bank, \$100.71 million in 2011.<sup>111</sup> Much of this goes to social sectors, as well as infrastructural projects and governance programs.

## **I. Maritime Transport Services**

188. Reliable maritime transport and infrastructure are an essential element in the country's transport network, and an essential prerequisite for trade, economic development and poverty reduction in PNG. However, all rural communities in PNG face difficulties with sea and river transportation services. Limited shipping services are a major factor in people's isolation, lack of economic opportunities and access to social services and markets.

189. PNG sea ports provide a vital link between PNG and the world market, with more than 80% of exports shipped from ports. According to MTDP, there are now seventeen commercial ports, but only Port Moresby and Lae are financially viable.<sup>112</sup> The other fifteen are smaller and subsidized by these two operations. A number of publicly and privately operated minor wharves, jetties and landings also exist around the country, serving smaller container and cargo ships, but the majority of these are in poor condition and carry very little traffic.

190. PNG local passenger services have been declining over a number of years, and many provinces which once owned small ships and operated passenger services to their more inaccessible districts, no longer do so. Passenger services have become overcrowded, unhygienic, irregular, and often unsafe. Compounding these problems has been the lack of safety and rescue equipment on board many ships and smaller craft. Protocols for routine safety and rescue drills for both passengers and crew often appear not to be taken seriously. The

<sup>108</sup> The Public Sector Reform Advisory Group, *'Improved Decentralization, Second Report'*, July 2006, states that the law created a complex system of decentralization that has failed in most provinces; and resulted in declining social indicators; corruption and lawlessness; police and judicial systems which are inadequate for their tasks; decaying general administrative systems; decades of resource exploitation, with little lasting benefit; political patronage which benefits only a few; most citizens removed from positive interaction with the government; most citizens not provided with the means or motivation to better themselves; poorly maintained infrastructure and assets; and that it has relied on large inputs of overseas aid, with results not commensurate with the volume of aid. (Quoted in D. Cammack, *Chronic Poverty in Papua New Guinea Background Paper 2008-9*, p.40).

<sup>109</sup> Cammack, D., *Chronic Poverty in Papua New Guinea, Background Paper 2008-9*, p. 6 for Chronic Poverty Research Center.

<sup>110</sup> <http://www.adb.org/sites/default/files/pub/2012/PNG.pdf>.

<sup>111</sup> <http://www.worldbank.org/en/country/png>.

<sup>112</sup> *Papua New Guinea Medium Term Development Plan 2011-2015* p. 56.

sinking of the Rabaul Queen off the coast of Finschhafen in February 2012, with the loss of between a hundred and two hundred lives, has further damaged confidence in the coastal shipping services and reduced the number of interisland ferries operating.<sup>113</sup>

191. It is not known exactly how many people died but it is thought that the ship was carrying many more than the 310 it was permitted, and there is currently an investigation underway into the causes of the disaster.

192. The ship, belonging to Star Ships Ltd, part of a larger fleet owned by Peter Sharp, conducted a weekly run from Buka, Rabaul, and Kimbe to Lae. More than a month after the disaster, three ships belonging to the same company were seized in Buka, with relatives demanding compensation for missing persons. They were later set alight, reducing ferry services around the islands still further.

193. Irregular and unreliable shipping services to remote districts means travelers are often stranded and obliged to stay longer than desirable, posing a major problem to families and a significant disincentive to undertake travel, especially for women. On some routes there have also been a few incidents of sea piracy, with passengers being held up and robbed, which is a further disincentive for women to travel

194. While passenger ships are inadequate to meet demand, there are hundreds of small craft, particularly 19-23 foot dinghies with outboard motors (or 'banana boats') owned by small operators, LLGs, village groups, and families, which ply the shorter routes between islands and along the coast. They provide vital access to markets and social services.

195. Because of these boats, the populations of many small islands often have moderate access to services, because boat travel takes them directly to major service centers. However the cost of outboard motor fuel is a severe constraint on villagers' ability to travel and freight costs charged on cargo to larger markets may be unaffordable. Small boat travel is also uncomfortable, wet and often dangerous during parts of the year because of weather conditions, and boating accidents are common, though exact statistics are hard to come by. People's lack of mobility directly leads to marginalization and reduces their opportunities to develop alternative forms of livelihood, in effect trapping them in the subsistence economy and all too often, in poverty.

## **SAMPLE SUBPROJECTS**

### **A. China Strait (Kwanasausau): Samarai and Gesila Islands, Milne Bay**

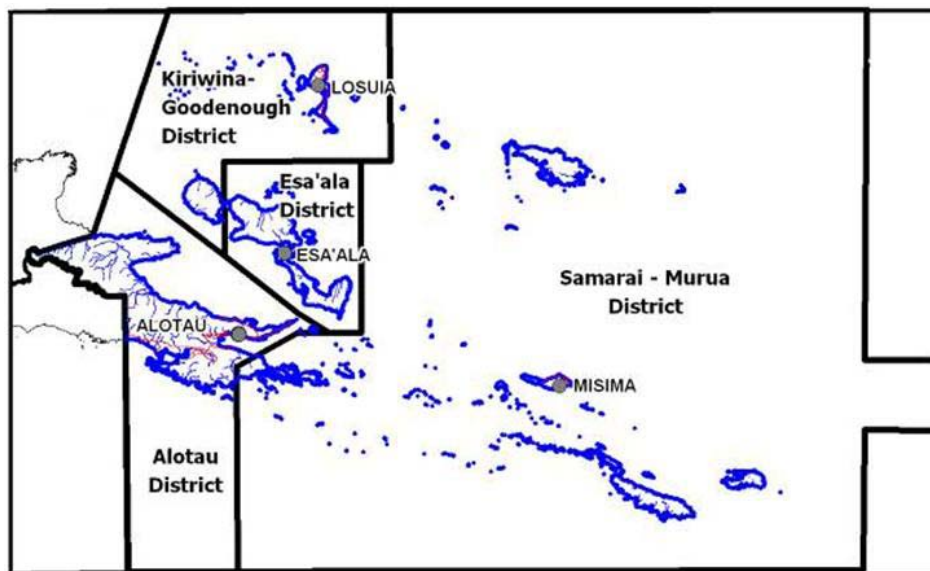
#### **1. History and Demographic Profile**

196. The Samarai-Murua District has a population 55,061, (2011)<sup>114</sup> and while land area is small, it covers a huge area of the Solomon and Coral Seas. It is made up of numerous islands including the Louisiade Archipelago, the Engineer Group, Misima, Calvados Island and Woodlark (Murua) Island, and contains 20.3% of Milne Bay's total population.

<sup>113</sup> Rowan Callick, 'Rabaul Queen disaster to drive big changes: PNG's worst ever sea trouble', *Islands Business*, March 2012.

<sup>114</sup> *Papua New Guinea Census 2011, Preliminary Figures*, National Statistical Office of PNG.

197. The proposed five new navaid's are to mark either end of the busy China Strait as well as the narrow middle section, (on Gesila and Kwato islands) as shown on Figure 2. Gesila island has a population of less than twenty people from three families. It is part of Bwanabwana Rural LLG which has a total population 11,432, (2011) and whose headquarters are on nearby Samarai island, which acts as a service center for the surrounding islands.



**Figure 6: Milne Bay Districts**

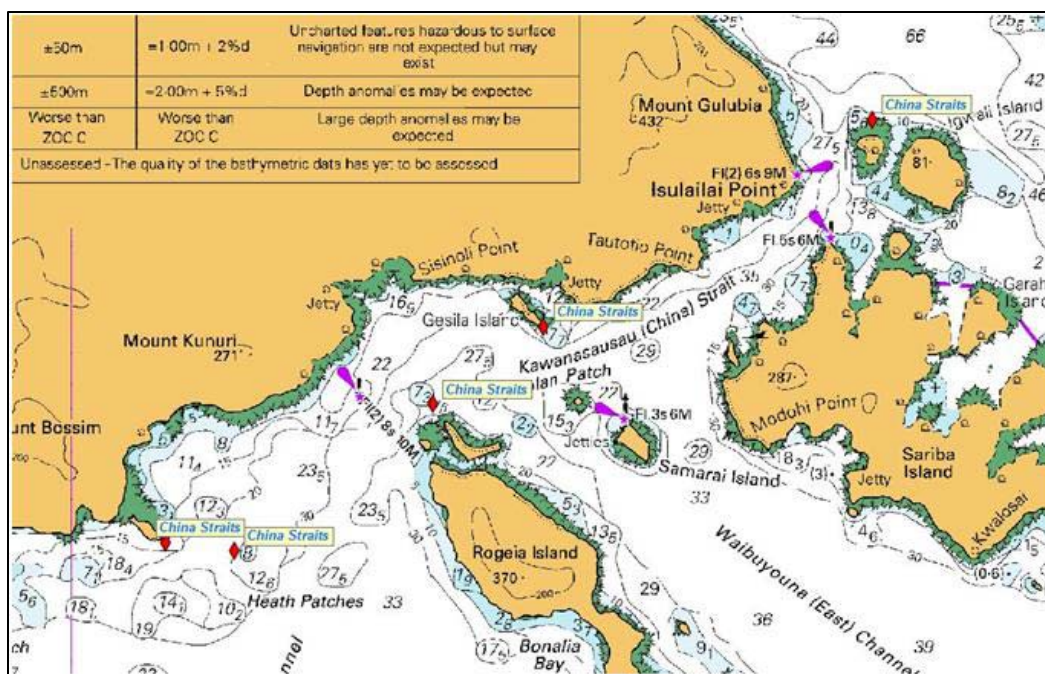
198. Samarai is a small island (54 acres), off the south-east tip of PNG on the China Strait and was the former administrative capital of Milne Bay Province. It lies between the islands of Logea (Rogeia), Kwato, Sideia, and Sariba, to the south of Basilaki Island. Historically it was very important as a trading port and stop-over between Australia and South-East Asia.

199. Up until the 1970s Samarai was the second largest town in Papua after Port Moresby. The first European to have visited Samarai is thought to have been Captain John Moresby in H.M.S. Basilisk in April 1873. Traditionally, the land was used as a gardening island, by the people living on Rogeia Island. In 1878 the island was sold to the London Missionary Society (LMS), for commodities valued at 3 shillings and sixpence, so that newly arriving European missionaries and Pacific island pastors could establish their headquarters. After a protectorate had been declared over British New Guinea, a government officer was posted to Samarai and in 1888, the Administration arranged for the LMS to exchange the land, which they held, for the island of Kwato.

200. A naval coaling station was established at Samarai in 1889, a resident magistrate was posted there, and a court established. Samarai and Port Moresby were declared the only ports of entry in 1888. Samarai became the center of an important plantation and mining industry and until about 1914 was a more important urban center than Port Moresby, with the value of goods exported from there, more than three times the value of those exported from Port Moresby.<sup>115</sup> Exports were copra, gold, trochus shell, and beche-de-mer, and Samarai became known as the commercial capital of British New Guinea.

<sup>115</sup> *Encyclopaedia of Papua New Guinea*, Vol. 2, p1029, Melbourne University Press & University of PNG, 1972.





Red: proposed new sites

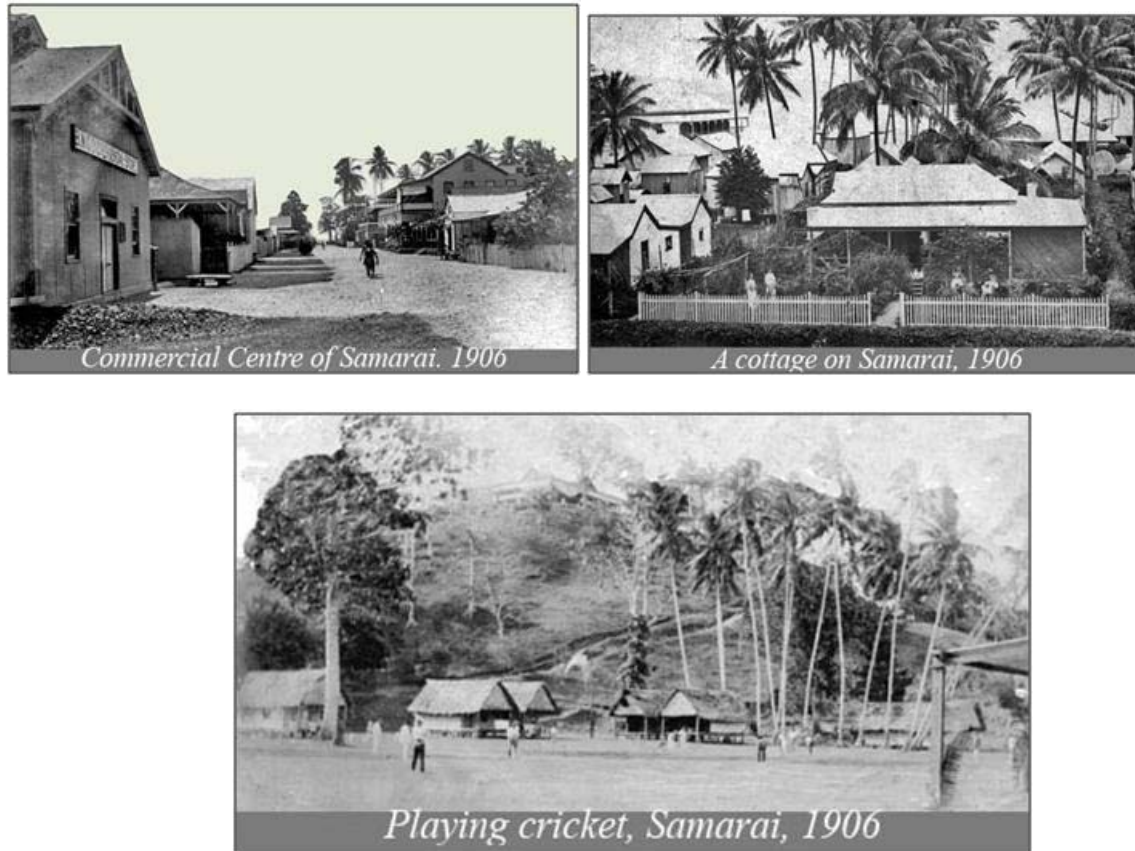
Purple: existing lighthouses (Isulailai point, KabaEruEru—Sariba Island, Samarai and WekaUna Rock)

**Figure 7: Existing and Proposed Navaid Sites in China Strait, Milne Bay Province**

201. By 1907 Samarai had a European population of a hundred as well as its indigenous population. It had three pubs, the seat of a bishop, a rectory, a church, three stores, government buildings, tramlines to the jetty and some grand private residences, European and Papuan hospitals, and many warehouses and wharves.

202. By 1915 apart from the busy port, there was a Customs House, Bond Store, three banks, trade stores, a goal, movie theatre, cricket pitch, lawn bowling green, tennis courts, a school, and many more impressive private residences. By 1927 the streets were lit by electricity and the port facilities were improved. By 1939, two desiccated coconut factories had been established and two new mission stations. By the 1940s the European population had grown to 150. In 1942, there was a general evacuation of Samarai, and later that year, the town was destroyed, although later partly rebuilt. After the war, it declined in importance, but remained an important port for the export of copra.<sup>116</sup>

<sup>116</sup> *Encyclopaedia of Papua New Guinea*, Vol 2, p. 1029, Melbourne University Press & University of PNG, 1972.

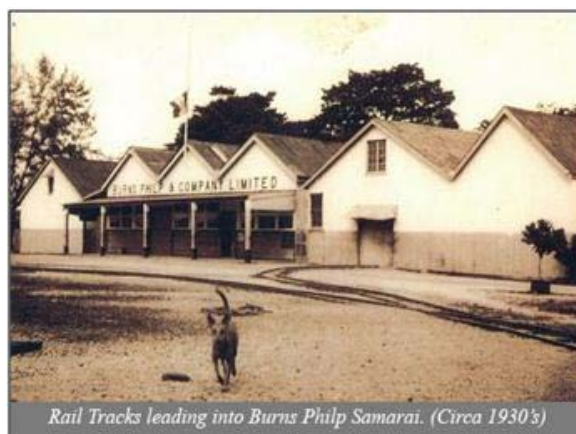


**Figure 8: Photos of Samarai in 1906**



**Figure 9: Samarai 1920**

203. At present there is little left of the bustling prosperous town which covered the whole island, as it was destroyed during World War II, and then suffered a decline when the provincial capital was moved to Alotau. While large coastal ships still pass through the China Strait in great numbers, they do not stop at Samarai, and the island, with its crumbling infrastructure, was declared a National Historical Heritage Island by the government in 2006.



**Figure 10: Commercial Warehouses in Samarai in 1930s**



**Figure 11: Destruction During WW**

204. However, Samarai is currently still the center for Bwanabwana Rural LLG which covers 14 main islands: Rogeia, Samarai, Sariba, Sideia, Baslaki, Anagusa, Tewatewa, Kwaraiwa, Tubetube, Skeleton (Naluluwalu), Dawson (Koyagaugau), Doini, Gunubalabala, and Ware.

205. The LLG has 23 wards. The district headquarters for this area is Bwagaoiaon distant Misima, some 18 hours away by boat. This has proved an administrative nightmare for the local LLG, because of the lack of regular shipping services in the region. Following protests about this situation, the LLG has been linked to the Alotau financial and administrative system, so government officers no longer have to make the long journey to Misima and can mostly access funds from the Provincial Treasury. However, the district still controls the funds, and line ministries still have to deal regularly with the Misima district headquarters. It takes 2–3 hours by boat to reach Alotau, but this is still much more convenient, despite on-going procurement difficulties because of the complicated administrative arrangements.

206. Two of the proposed new navajds to be installed on China Strait will be located on Gesila Island, a small island opposite Samarai across the China Strait near the mainland, and Kwato Island, on the same side of the China Stait as Samarai and closeby.

207. Both islands have been significant missionary sites. Gesila was leased by the Seventh Day Adventist Church for 99 years, in the 1960s, and following the Seventh Day Adventists

(SDA) headquarters move to Oro Province, the island has remained largely empty of people, with just a caretaker, Gilipasi Pudidi, his extended family, and one other pastor and his family, living on the mainland end of the island (approximately 19 people). He is keen to assist NMSA and has no concerns about having a navaid located on the channel end of the island, since all the houses and buildings on the island are at the other end, facing the sheltered mainland.<sup>117</sup> Other former customary landowners accept that the island is now the property of the SDA church. There are in fact two leases, No.146 which is for five acres and expires in 2052, and another, No.147 for 38 acres, which expires in 2062.

208. Kwato Island, is mostly owned by the Kwato Extension Association (the church organization which was formed from the earlier LMS mission.) However, the end nearest the China Strait where the navaid site is proposed, is customary land, as is the small rocky island off its point known as Bonaruahirihiri, meaning Whirlpool Island. Kwato has a population of around 200 people.<sup>118</sup> Information from ward councilors are that customary land owners would have no objection to the sitting of a lighthouse on the channel side of the island, and there are no known land disputes there.

## 2. Economic Activity

209. Culturally and economically, Milne Bay region has a defined character, despite its many islands scattered over a wide area (252,990 km<sup>2</sup>). It is sometimes referred to as ‘the Massim’ and its many societies are characterized by matrilineal descent, elaborate mortuary sequences and complex systems of ritual exchange including the Kula ring. This inter-tribal circular trade system, was first described by Bronislaw Malinowski, after his pioneering anthropological fieldwork in 1914 and 1918.<sup>119</sup> He described the people of the region as “expert navigators and traders”, using excellent large carved sea-going canoes to embark on distant trade expeditions, between specialized manufacturing centers of important articles, such as pottery, stone implements, canoes, fine baskets, carvings, valued shell ornaments, fish, yams and other garden produce.

210. The Kula, was carried on by communities inhabiting a wide ring of islands, which form a closed circuit. Along this route, articles of two kinds (white shell arm bracelets called mwali, and long red shell necklaces called soulava), were constantly travelling in opposite directions. The valuables were held for a short time, and then passed on to a defined trading partner, accompanied by elaborate magical rituals and public ceremonies. Side by side with the ritual exchanges of arm shells and necklaces, people carried on a wide range of ordinary trade and barter from one island to another.<sup>120</sup>

211. Some of this complicated and extensive trading system has now ceased to operate, but the island connections and navigation skills that made them possible, still exist. People still think little of travelling long distances to service centers or markets. For example, Ware Island, the most populated island, is 5–6 hours by boat from Samarai where the nearest health center is located.

<sup>117</sup> Personal communication with GilipasiPudidi, Caretaker/SDA Pastor of Gesila Island, 11/6/2012.

<sup>118</sup> Personal communication with Sheldon Andrew, Ward Councillor, Kwato.

<sup>119</sup> *Argonauts of the Western Pacific*, Bronislaw Malinowski, 1961 edition, Dutton, NY. (First published 1922).

<sup>120</sup> *Argonauts of the Western Pacific*, Bronislaw Malinowski, 1961 edition, Dutton, NY pp. 82-83.

### 3. Land

212. In common with most of PNG, most land in the Bwanabwan LLG is customarily owned and inherited through matrilineal lines. However, because Samarai was a government station there is a lot of state and privately owned land, and there is also some church land, as well as on Kwato Island, which was alienated in the 19th and early 20th century.

213. Government facilities are built on state land. There are also six government copra plantations in the LLG, and some disputed government land, which was the site of a former rubber plantation, now claimed by its customary landowners. The LLG would like to develop this plantation, but the land disputes have delayed this, as titles and boundaries need to be defined.

214. There is also some private land, most notably that of George Konstantina, a businessman who was recently murdered at Gerehu, leaving a legacy of disputes over his land; Peter Sharp's land (owner of a large shipping company), who owns warehouses and property on Samarai; Doini Island which is owned by a prominent politician; and Belasana plantation owned by the Wild family with its ship's slipway and airstrip, now deteriorating and unused.

215. The Seventh Day Adventist church has a 99 year lease covering the small Gesila Island, as this was their former headquarters. The island became a leprosy and tuberculosis (TB) center for a short time, but this no longer exists except for a couple of decaying buildings.<sup>121</sup>

### 4. Livelihoods

216. Subsistence farming remains the main occupation in this area. Farmers grow yams, taro, sugar cane, tapioca, sweet potatoes, bananas, mangoes, betel nut, and various local nuts such as local chestnut (ayla or hiyaga) and collect laulau and pio berries. There is very little forestry, as most islands have only secondary forest, which has been gardened in the past and the mainland is steep and inaccessible.

217. The old beche-de-mer industry has halted as the National Fisheries Authority banned collection of sea cucumbers in 2010 for five years, in order to conserve stocks. Most of the lowland robusta coffee grown was destroyed when people became enthusiastic about planting vanilla. However, vanilla has not been a success, with its complicated processing making it very labour intensive and with difficulties in producing high quality beans.

218. There is a lot of small-scale local fishing by canoe, for home consumption and sale at local fresh fish markets. Families around the Samarai area make fairly regular trips to Alotau by banana boat to sell fresh fish at the urban market. For example, the caretaker at Gesila owns a banana boat which his sons take to Alotau every week or two (using 50 liter of fuel per trip at K3.90 a liter). Apart from selling fish, they take 6–7 people who pay K60 each for the return trip.

219. The main export product from the sea, is shark fin which is still fished in some places, though it can be dangerous and difficult from small boats and canoes. The meat is divided for eating or sale, and the fins exported to Asia as a delicacy. The main export cash crop remains copra, but the industry has shrunk considerably as world prices dropped. Many old copra plantations have not been replanted and do not produce much. Betel nuts are more important for household income than coconuts.

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<sup>121</sup> Information obtained from staff of the Bwanabwana LLG, interviewed on 11/6/2012.



220. Some families on the mainland are able to get a small income from making canoes from rosewood, but this is only possible where large trees remain. Canoes are sold for between K150-K300, or are made for kin as part of the reciprocal trading relations in the area.



**Figure 12: Canoe Builders on Mainland Coast, Bwanabwana LLG**

221. Apart from one grocery store, there are only two canteens or small trade stores on Samarai, and a number of women run home bakeries making bread to sell. Some women also still make shell objects, for local markets or tourists. Ware island has a tradition of making clay pots, and some pottery is still sold in the market in Alotau.

222. There is only one carver on Samarai, who learnt his trade in the Trobriands, where it is a major industry. There are four small tourist resorts, plus occasional visits by small cruise ships to Samarai (every 2-4 months), and some visiting dive boats, but these have become fewer after tourists in another part of Milne Bay (Tawali, East Cape) were attacked by raskols.

223. Those with skills such as plumbers, mechanics and carpenters often have part time occasional work, but few are fully employed although the 3 or 4 trained motor mechanics are in demand for outboard motor repairs. A few people also survive by selling fuel for outboard motors and kerosene for cooking.

224. The one major business on Samarai is a pearl farm owned and managed by MrKim Harvey of Coral Sea Mariculture PNG Ltd. Kim was a former pearl diver from Broome, who learnt the pearl industry from Japanese experts. He came to Samarai in 2000, and at first, developed a pearl farm near Sariba, as a joint venture with local people, employing 30-60 people. However, he faced a major problem with theft of pearls, despite employing local security officers, sometimes losing a whole line of pearls (800–1,600 pearls worth more than K100,000) in one night. Finally he closed the farm at Sariba and set up a new farm off the privately owned small, uninhabited island of Ebuma, close to Samarai, employing around 22 local people. In the old wharf buildings he has a hatchery breeding his own pearl shells. It takes two years for the shells to get to 120mm ready for implanting the nucleus, which are then returned to the seabed, being turned every two days for 45 days, until they are brought up to the surface for another two years of growth. The pearl business is the only one in PNG, and is set to expand with new lines around Kwato Island.<sup>122</sup>

<sup>122</sup> Personal communication, Kim Harvey, 13/6/2012.



**Figure 13: Pearl Hatchery and Gold Lipped Pearls**

## **5. Transport**

225. The China Strait passage is used by large international container ships, fuel tankers, tugs towing barges of timber, and Consort coastal cargo ships moving between Port Moresby and Lae. Starships company used to provide a regular passenger service to Samarai, but this stopped after the sinking of the Rabaul Queen. The owner of Starships, Peter Sharp is a large land owner on Samarai island, and had plans to start a maritime college in one of the old warehouses, but this seems unlikely given that his businesses have collapsed following the disaster.

226. The Evenetts, a family business, have a contract with PNG Power to supply fuel for the power station. They own three boats, which provide local services of various kinds: one boat is 52ft and can carry 25 passengers, one is 42ft and can carry 15 passengers, and the smallest is 38ft and carries 10-15 passengers.

227. Currently one of the ships is in Alotau doing survey work, another travels every week to Normanby Island for the Niugini gold mine there. At other times boats go to Misima, Suau on the mainland, and to other islands, but there is no regular passenger service. When it is too rough for banana boats to travel to Alotau, the Evenetts will take passengers for K15. Their boats are equipped with life jackets, a life raft, firefighting equipment, and they carry a 14ft dinghy.



**Figure 14: Banana Boats and Small Passenger Boats at Samarai Wharf**

228. In Milne Bay as a whole, only 21% of the population lives within 5 km of a national road, so sea transport remains extremely important.<sup>123</sup> Most families either own or have access to small dugout canoes used mainly for fishing, visits to nearby communities and markets, or by school children travelling to school.

229. Larger ocean going outrigger or double hulled sailing canoes (masawa and nagega), like the traditional Kula canoes, still exist (now with canvas sails rather than woven pandanus). These are used especially around the Suau mainland coastline, and in the outer islands, where people must travel much further to reach services and markets.

230. There are few canoes with motors, as these are normally found only on rivers in PNG. However, the most common form of local transport is the banana boat or motorized dinghy. These are not as buoyant as traditional craft, and the fuel is expensive, but they are the fastest form of transport. Some families will own a dinghy and some use it as a means of income, taking passengers to Alotau and other centers. Other dinghies are owned by the LLG, government services, or by the churches.

231. While statistics are hard to find, everyone told us that accidents are common, with people drowning or going missing every year. They attribute these accidents to dinghy operators being careless, taking risks at night and in bad weather, or being drunk after visits to town. Other causes mentioned were overloading, underestimating fuel requirements, and the fact that almost no dinghies (even those owned by government) carry safety equipment, paddles, or spare parts.

232. The LLG staff estimate that there are 5–6 dinghy operators on Samarai and 10–20 elsewhere in the Bwanabwana district. The 19 ft dinghies carry 5–7 people, while 23 ft dinghies carry around 10, but overloading is common.

233. Informants mentioned that while Samarai was well served by wharves, warehouses, and jetties (although the warehouses are dilapidated and the wharf is also used as a major fishing

<sup>123</sup> PNG District and Provincial Profiles, The National Research Institute, March 2010, p. 31.



site), many other places lack suitable jetties or anchorage sites, which restricts the kind of boats that can easily visit. On the actual island of Samarai there are only two vehicles: a tractor used by the power station to bring fuel from the wharf, and one private car owned by one of the richer families who own inter-island boats.

234. In relation to navais, the LLG staff and other key informants, believe that the main cause of outages, vandalism and theft was conflicts over land ownership and benefit sharing, although they thought some theft may also be by young men wanting to steal batteries and solar panels to play their music on. Informants were adamant that Lighthouse payments should go to the community as a whole and not one family or landowning clan. They also like the idea of the Community Lighthouse Committee (CLC) being chaired by the Ward Development Committee chair, with the proviso that the position is not politicized.

235. The Women's Group is keen all lighthouses in the China Strait have women on the Community Lighthouse Committees. They pointed out that the light on Saribaat KabuEruEruis frequently out because one family dominates and does not share the income, and this is resented by many in the community. A ward councilor from Simagahi, Ward 17, where the Isulailai lighthouse is located, also made a complaint about the KabuEruEru lighthouse committee, claiming, that they had fraudulently arranged for the Isulailai CLC bank account to be closed, and had opened another in their name and were thus receiving payments for two lighthouses, while the local Isulailai people received none. This, he believes, explains the frequent vandalism of lighthouses on the eastern end of the China Straits.<sup>124</sup>

## 6. Access to Services

236. Compared to the early 20th century, services to this area have declined, apart from the improved communications brought about by the mobile phone networks. Samarai has no bank, no postal service, and only one grocery shop or mini supermarket. The Telecom telephone exchange had not been working for 122 days at the time of the PPTA visit. PNG power run a diesel power station supplying the island, but it is somewhat unreliable and suffered cuts at the time of our visit.

## 7. Education

237. Milne Bay has the highest net enrolment rate in the country at 69.2%,<sup>125</sup> and consequently has one of the most highly educated populations of any PNGan province, because of the long history of missionary activity in the region. Bwanabwana LLG has 8 primary schools, 3 community schools, one technical high school at Kuiaro, and one vocational school on Sideia Island. There are three common tokples languages, KainaBwanabwana (a creole language in the Engineer Group), Tawala and Suau (a mainland language which the missionaries promoted). Because of the extensive trading along the Kula routes, Dobu is also spoken, as it was the main Kula trade language. In Milne Bay, the literacy rate is 79.8% for men and 76.2% for women, which is higher and more equal than most parts of PNG.<sup>126</sup>

238. However, most informants believe that secondary schooling remains a problem as most children have to travel long distances and board away from home to attend school. There is a large drop-out rate at the end of Grade 6 of primary schooling, and again at Grade 10. Some

<sup>124</sup> Personal interview with Archie Kaiser, Ward Councillor, Simagahi, Ward 17, Bwanabwana LLG.

<sup>125</sup> *PNG District and Provincial Profiles*, The National Research Institute, March 2010, p.31.

<sup>126</sup> *PNG District and Provincial Profiles*, The National Research Institute, March 2010, p.31.

parents are reluctant to send children away from home, and many worry about the lack of safe shipping.

239. The primary school in Samarai has 161 children from Samarai and the surrounding islands from Grades 3-8. There are 65 children who come across from the mainland, as there is no primary school there, and 85 children from Sariba, recruited for a Retention Program that aims to encourage former school drop-outs to continue their education. These children range in age from 12–22 years.

240. There are six teachers and the school has one new classroom block and an old colonial building. The students live in an old colonial house with no windows, which is in need of repairs. However, resources for the boarding facilities are inadequate. In 2009 two boy's paddling to school in a canoe sank, drowning one of them. This caused a national scandal and forced the government to act, but unfortunately, despite Samarai becoming approved as a boarding school, it still struggles to provide adequately for boarders. Each week one set of parents comes to the school to look after the students.



**Figure 15: Principal Charley Beiteu and Children at Samarai School, and School Classrooms**

241. While the school provides basic commodities such as rice, flour, and sugar, parents are often asked to bring food into the school from their gardens, or children have to travel home to collect food. This often involves journeys across dangerous waters, and the dinghy fuel costs a lot. Children tend to bring betel nuts from home to sell in order to pay for boat fares and food.<sup>127</sup>

242. On Gesila Island the children attend Lambaga Primary School on the mainland, which is a 12 hour walk from the island, or 7 hours to paddle in a canoe. The parents take food to the children by walking long distances, or drop off food on their way to Alotau for other business.

243. Because there is no secondary schooling on Samarai or on nearby islands, children wishing to further their education must travel long distances. Children from the LLG may attend any of the following schools:

- Kuiaro Technical School (the closest school on the mainland across the strait)
- Sideia Vocational School for girls (about one hour's travel away)

<sup>127</sup> Interview notes: Charley Beiteu, Principal, Samarai School, 12/6/2012.

- Suau High School (Anglican, Grades 9-10 on the mainland – two hours away)
- Cameron Secondary School (near Alotau, about 2–3 hours by dinghy)
- Hagita Secondary School (some distance from Alotau – 3 hours away)
- Wesley High School (at Esaala, Salamo United Mission)
- Watuluma Secondary School (on Goodenough island (PMA mission)
- Dogura Secondary School (near East Cape –several hours by dinghy)
- Misima Secondary Schhol (government school – 18 hours by boat)

244. Parents and teachers all feel that the China Strait needs better navaid, as many of the dinghies travel at night, bringing pupils and teachers for in-service training courses. Larger boats are irregular and people may wait for hours, but not find one, or they return home and boats come, but are unable to find passengers. Everyone interviewed said that there was a huge unmet demand for good, safe local passenger services around the islands, and connecting to main centers. This is particularly true since the Star Shipping Company ceased operations following the sinking of the Rabaul Queen in February 2012.

## 8. Health

245. Bwanbwana LLG has three centers at Samari, Sideia and Kwaraiwa, and 13 aid posts, staffed by one aid post orderly. The health indicators remain quite low, with under-5 mortality rates for Milne Bay estimated at 97/1000 and infant mortality of 69/1000. Life expectancy for Milne Bay is 54.1 years. Exact figures for maternal mortality in Milne Bay province are difficult to estimate, though a recent study's findings are fairly consistent with the estimated national rate of 733 deaths per hundred thousand live births.<sup>128</sup> Of 12,300 births a year in Milne Bay, only one in six mothers will have a supervised delivery at a rural health facility. In the isolated outer islands of PNG, the difficulties of predicting delivery problems are compounded by isolation and lack of access to health centers. Safe and speedy transport is often crucial to women's survival.

246. The main health center on the China Strait at Samarai has a staff of four nursing officers (female), four community health workers (male), and a dental therapist. There is also a Health Extension Officer who performs minor surgery such as suturing wounds and performing tubal ligations. Doctors visit occasionally. Drugs are ordered every two months, but the supply often runs out before the next order is received. The center receives about twenty patients a day, and has one small ward for in-patients, who provide their own food. In 2011 there were 3,816 visits from male patients and 4,089 for female. According to staff, the most common diseases presenting to the center are: malaria, pneumonia, asthma, TB, and STIs. There are occasional outbreaks of diarrhea related to the lack of sanitation in many villages.

247. Women living on nearby islands mostly deliver in the center, but in more isolated areas, Village Birth Attendants have been trained to assist women with deliveries. Records show that 74 women gave birth in the center in 2011, and five were transferred to Alotau hospital with complications.<sup>129</sup> Staff also conduct outreach clinics every month to provide immunization, family planning and antenatal programs.

248. The center staff work two shifts, from 8.00 a.m to 4.00 p.m and from 4.00 p.m. till midnight. Two staff are also on call from midnight to 8.00 a.m. and the staff live in Department of Health housing next to the center. Gesila Island has no health facilities, and people must travel

<sup>128</sup> Kirby, Barry, *Maternal deaths in PNG*, O&G Magazine, Vol 13 No 3, Spring 2011, NZ College of Obstetricians and Gynaecologists p.57.

<sup>129</sup> Samarai Health Center Records and information from Sister Violet Kaiser, Sister-in-charge, 11/6/2012.

to Samarai, though this can be difficult in some weather and when the tidal currents are running the wrong way.



**Figure 16: Samarai Health Center with Sister Florence Alfred and Sister Violet Kaiser**

## **9. Other Services**

249. Samarai is the main service center for the district. The 50-60 households on Samarai have access to power most of the time, although there are cuts when the generator runs out of fuel. The telecom service appears to be poor and is frequently not working. There is also a shop with basic necessities and a market where the women vendors pay 60 toea a day to a private owner.

250. The market is very small, selling mainly betel nut, bananas and fish. A new market is currently being constructed. There is a town hall for community meetings and activities, and six churches: Catholic, Anglican, United Church, Kwato Association, SDA, and Christian Revival Church (Pentecostal). The police station is staffed by one policewoman, with a reserve policeman available when needed. The jail is in Alotau. There is also a Village Court with a woman magistrate. The agricultural department has the Agricultural Research and Development Station on the mainland at Buko, so some distance from Samarai.

251. The other main service provider on the island is the Bwanasu Guest House run by the local Bwanabwana Women's Association, which is an umbrella group for 12 island women's groups. The guesthouse is on state land and pays rent to the LLG. Its six staff are paid by the LLG (an average worker getting K250 a fortnight), but money from the guesthouse covers power bills, maintenance and other expenses. It provides rather run-down basic accommodation for visitors and hosts workshops and meetings, proving food bought from the local market. The staff occasionally make extra money by baking bread, buns and cakes to sell.

252. Informants from the Women's Association were keen to be involved in the management of the lighthouses in the strait, and felt that the government should be doing much more to

regulate safety standards, such as demanding that dinghy operators provide life jackets and carry paddles, as running out of fuel seems to be a fairly common occurrence.<sup>130</sup>

## **B. Rabaul: Simpson Harbor and Blanche Bay**

### **1. Demographic profile**

253. Ialakua ward is a small rural community in Ruluana LLG, Kokopo District, situated on Blanche Bay (a sunken caldera) along the main road between the new capital of East New Britain (ENB), Kokopo, and the old capital Rabaul. It has a population of more than 1000 people (542 voters), who are mostly ethnically Tolai, speaking Kuanua language, although there is some intermarriage with other groups. The community is settled on a point, which marks the southern side of the entrance to Simpson harbor where the main port of Rabaul is situated.

254. It is proposed to install a new navaid on the point as well as two others at the entrance to Simpson Harbor. The 2011 census recorded a total LLG population of 15,350 living in an area of 40.42 km. Raluana LLG is part of Kokopo district, whose population has grown from a few thousand before the 1994 volcanic eruptions of Mt Tavurvur and Mt Vulcan, to 73,896 in 2011, because of the resettlement of many people forced to move from Rabaul and surrounding villages which were destroyed (see Figure 16).

255. People in the village closest to the proposed new navigation aid live scattered along the coast, with limited land areas inland of this and consequently severe population pressures. All land is in customary tenure apart from a small percentage, which belongs to various churches. The average household size is 4.6 persons, and the sex ratio is 107 males per 100 females. The average annual growth rate for ENB since 2000 was 1.9%.<sup>131</sup> However, growth rates more than triple the provincial average are found around Kokopo, including Ruluana, because people come seeking better opportunities where incomes are relatively high.

256. There are six local ethnic groups in the province; the Tolai who inhabit the Northeast Gazelle, the Mengen who inhabit the central part of Pomio, the Kol who are found in the hinterlands of Pomio, Tomoips of East Pomio and part of Central Pomio, the Kairak and the Qaqet of the Baining. Ialakua is made up of four clans, two of which own land on the point where the new lighthouse is to be installed. These are the Toureanatana, and the Tabinam clan (which is situated in the neighboring ward of Barawan). Members of these clans and local ward councilors expressed positive attitudes towards to idea of new and rehabilitated navaids, as many of the previous ones had been destroyed by the eruptions of 1994.

### **2. Economic Activity**

257. Traditionally, the Gazelle Peninsula of ENB where Raluana is situated, is renowned for its fertile soils and prosperous economy. Under German colonial rule, a plantation economy was established, but after national Independence in 1975, much of this land reverted to customary land tenure. Now the economy is threatened both by the collapse of the main export crop, cocoa due to pests, and the degradation of Rabaul port. Ialakua's location on the main Rabaul – Kokopo road has influenced its economic situation positively and people have diverse sources of income from gardening, fishing, cash crops and formal employment.

<sup>130</sup> Personal communication with Mai Steven, Women's Association Guesthouse Manager and Lisa Gilbert, Administrative Assistant, Samarai Guesthouse, 10/6/2012.

<sup>131</sup> *Papua New Guinea Census 2011, Preliminary Figures* NSO p.38.

258. AusAID reconstructed the national trunk road as part of the main Gazelle Restoration program whose aim was to relocate the urban and rural population away from the Rabaul hazard zone and to restore the socio-economic situation to at least pre-eruption levels. Ialakua has been fortunate in that while affected by the ash and silt (tephra) from the volcano, it was not devastated to the extent of villages nearer Rabaul and its location on the main road near the new township has encouraged economic development.

259. Families also receive substantial non-farm income from those in formal employment in Kokopo. There is no proper jetty in the community and the nearest is the port facility at Rabaul, which although badly damaged, could not be relocated. Some major businesses could not move because of essential ties to the port, and these have attracted smaller businesses and some population back into the volcanic hazard zone. While the population of Raluana LLG moved out for 3–6 months after the eruption, most have now returned to their homes.

260. The northeast Gazelle Peninsula where Raluana LLG is located, produces a wide range of export crops. Agriculture has been the driving force of the economy of the province since the colonial era when early planters established coconut plantations and established copra trading posts in Kokopo. The major cash crops are cocoa and copra, although cocoa production has declined markedly as a response to the introduction of cocoa pod borer falling from 20,681 tons in 2006 to 9,000 tons in 2010.<sup>132</sup> Next in economic importance are balsa and coffee. Small volumes of spices are also grown (cardamom, nutmeg, chillies, canarium nuts and essential oils). Most families in Ialakua farm between 1–2 hectares – bananas, mangoes, aybika, tapioca, sweet potato, coconuts and cocoa. There are no wild food resources, as all the land is cultivated with little bush remaining.

261. In Raluana some fishing is done for both family food and for sale as fresh fish but fishing is not really treated as a business. Very little of the fish is smoked, although it sells for a higher price. Fishing is now largely restricted to men, although traditionally women also fished. Women say they no longer need to fish, but are also restricted as some parts of the beach are sacred (*tambu* or *taraiu*), and women are not permitted access. One night's catch is usually between 12–20 fish, which can be sold for around K50.

262. However, fishing is seasonal, depending on weather conditions, and is not done all the time. There are some fishing cooperative groups ("*kita*") and both the Ward and LLG own dinghies and outboard motors, which they will lend for fishing trips. Around 50 families have canoes, which are mainly purchased from people on the Duke of York Islands, as there is little large timber left locally. A canoe costs between K150-200, and those who cannot afford them, can sometimes hire from those who have one.

263. In wider East New Britain there are extensive potential fisheries resources ranging from inland fisheries, aquaculture, coastal beach-der-mer and reef fisheries, prawn farming and large-scale deepwater tuna fisheries. Commercial fishing out of ENB waters is carried out by licensed tuna long line operators and purse seine fleets.

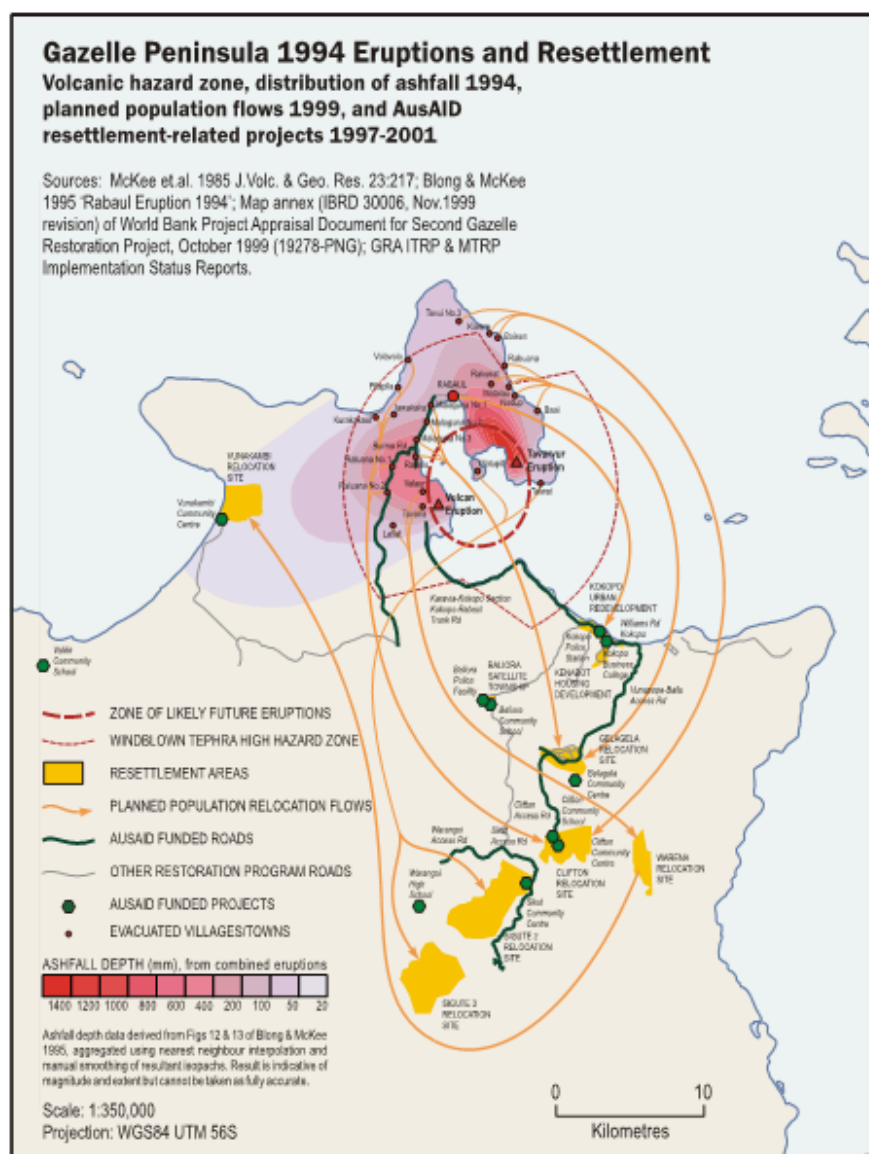
264. In the early 1980s there were several fishing companies operating out of Rabaul supported by a 30 metric ton block ice plant, freezer space and office. However the demise of the pole-and-line tuna fishery during that period, and the later eruption saw the Rabaul based tuna fishing and transshipping arrangements fall apart. Most of the commercial fishing is now done by foreign companies.

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<sup>132</sup> *East New Britain Province Strategic Development Plan 2011-2012*, p.35.



265. The ENB Province Strategic plan notes that: “ENB is one of the 14 Maritime Provinces that can tap into existing economic opportunities to maximize its marine resources. Local fishermen need to be encouraged to utilize the employment and income potential of the traditional 3–12 nautical mile zone.”<sup>133</sup>

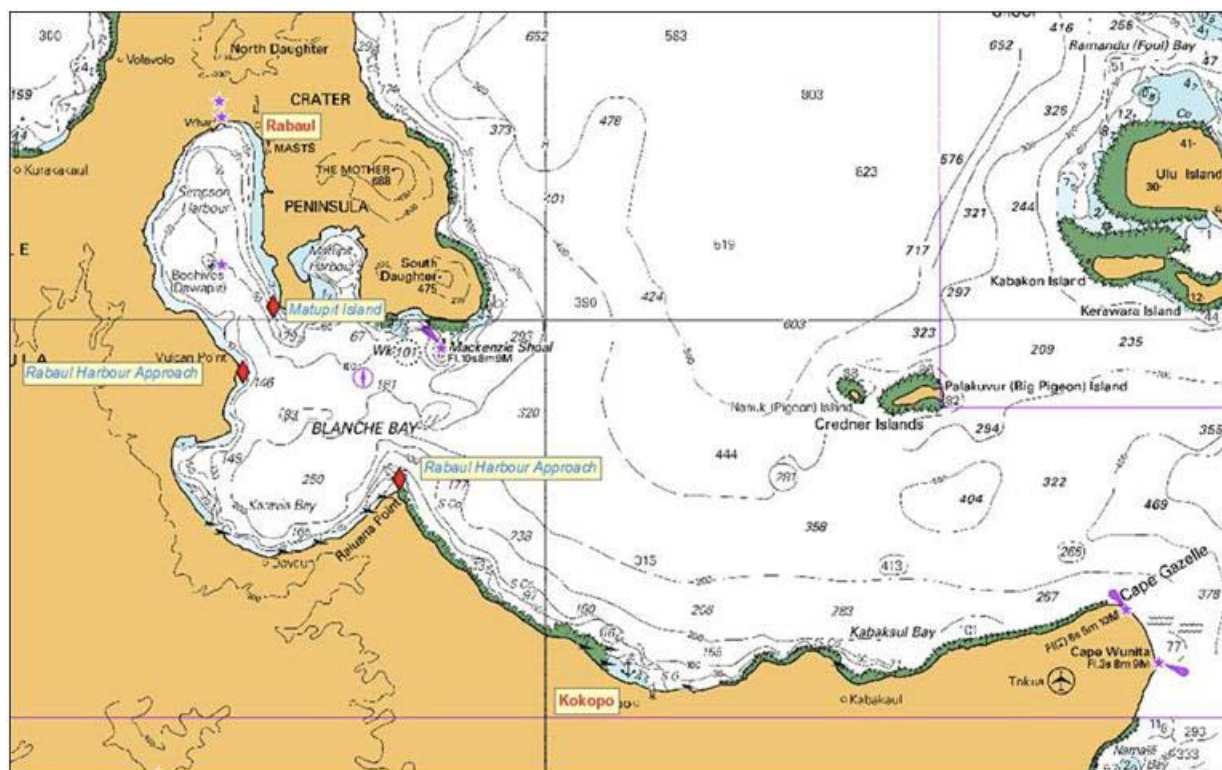


**Figure 17: Gazelle Peninsula 1994 Eruptions and Resettlement**

266. Ashfall depth from the Vulcan and Tauruvur eruptions indicates the areas most affected by southeast windblown tephra. The hazard zone also includes an area that would be affected if eruption occurred during northwest winds. Resettlement areas are marked in yellow. The map shows Ruluana just outside the hazard zone and relatively unscathed by the eruptions.<sup>134</sup>

<sup>133</sup> East New Britain Province Strategic Development Plan 2011-2012, p.38.

<sup>134</sup> Scales, Ian, *Roads in Gazelle Peninsula Development*, Commonwealth of Australia report, May 2010, p.38.



**Figure 18: Map of Gazelle Peninsula Showing Sites of Existing and Proposed Navaid**  
(purple = existing navaid; red = proposed navaid)

267. As far as transport is concerned, if the cash crop production areas of the Gazelle Peninsula are mapped, most noticeable is the strong correlation between the road network and cocoa production. A further, very much smaller component is distributed around remote coasts, relying on shipping or outboard-powered dinghy for transport. Beyond the road network in inland areas, almost no production occurs. This is strong evidence for the economic benefits of good transportation networks.

268. Both road and sea freight costs for valuable crops like cocoa are low, relative to the value of the crop (around 10%)<sup>135</sup> Where a worthwhile profit can be made, people use both sea and road transport for their crops. However, in the case of local fresh produce, only roads close to the central markets in Rabaul and Kokopo are used, because the profit margins are small, and it is not profitable to carry produce long distances.

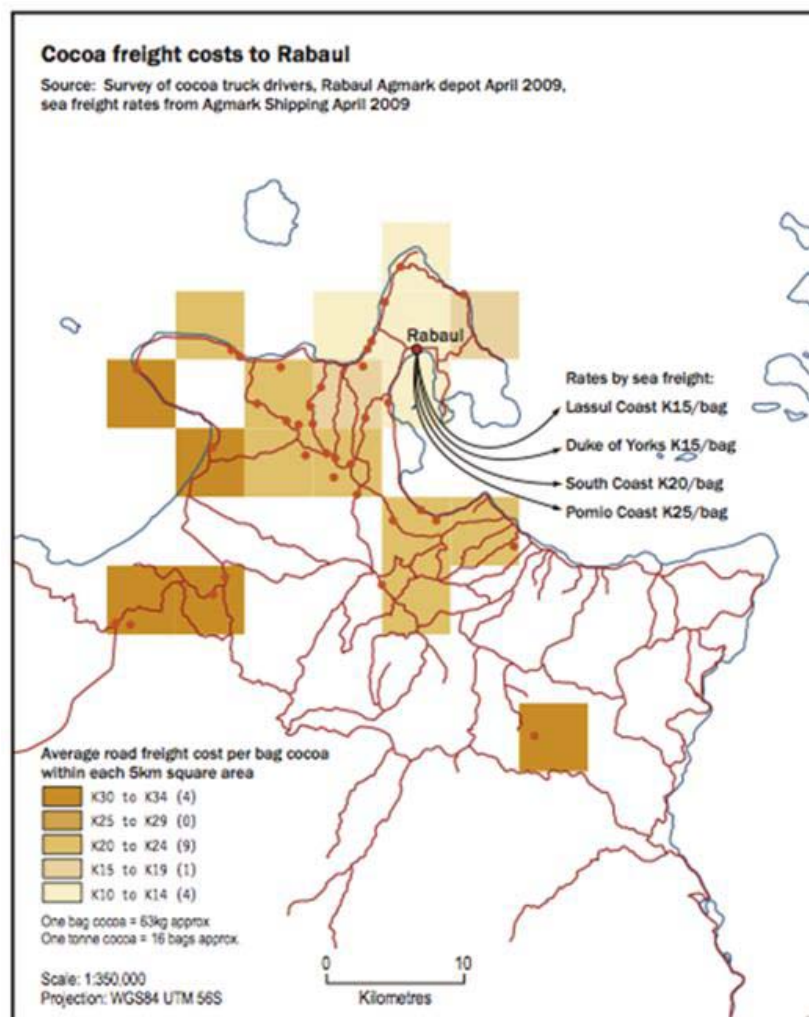
269. The following map (Figure 18) shows some sea freight costs, which are on par with road freight costs. Yet, cocoa production in most remote coastal areas is very low. This is a combination of poor shipping facilities affecting shipping frequency and regularity, and of population and environmental constraints.

270. The cost of maintaining roads is prohibitively high, and a better solution is to develop the sea-linked market chain, which already exists around the ENB coast. Unlike roads, sea lanes need no maintenance, and what is now needed is small feeder roads and wharves for shipping. Sea routes are also better for copra since production is stronger in coastal areas due to both the more favorable growing environment and due to the historical location of colonial plantations.

<sup>135</sup> Scales, Ian, *Roads in Gazelle Peninsula Development*, Commonwealth of Australia report, May 2010, p. 23.



271. Large local markets are found in both Kokopo and Rabaul. These urban markets are provincially managed and attract sellers from many locations, (96% of whom are women).<sup>136</sup> Most people from Raluana arrive by public transport and sell a mix of fresh garden food (fruit, tubers, vegetables 41%), prepared ready-to-eat food (17%), fish, betel nut (26%) and handcrafts. In 2010 vendors were recorded as making K70 a day from the market.<sup>137</sup> It is estimated that 80–90% of ENB's population is engaged in the informal sector, with sales turnover of K20,000 per business annually.



**Figure 19: Freight Costs for a Bag of Cocoa to Rabaul from Various Locations**<sup>138</sup>

272. Apart from the two large markets, Raluana women also sell in smaller markets scattered along the road. There are usually less than a dozen sellers from nearby households, and their main problem is lack of demand, because fresh produce works best where there are non-farming wage earners who buy rather than grow their food. Raluana is particularly famous for its mango production, and during the mango harvesting season, farmers are unable to sell all their produce locally, and so special sea trips are made to Kavieng and other main centers in New Ireland to sell the crop.

<sup>136</sup> Scales, Ian, *Roads in Gazelle Peninsula Development*, Commonwealth of Australia report, May 2010 p.25.

<sup>137</sup> Scales, Ian, *Roads in Gazelle Peninsula Development*, Commonwealth of Australia report, May 2010, p. 27.

<sup>138</sup> Ibid. p.24.

273. Other smaller industries in the Gazelle peninsula include tourism and forestry. Raluana has benefitted a little from the growing tourism sector, with up to 15 cruise ships visiting per year, and many dive boats coming to look at World War II wrecks. The market provides an outlet for local shell and basketware handcrafts.

274. In the past forestry was a major revenue earner for resource owners and the ENB Provincial government. However much of the accessible forest areas have been completely logged out, amid controversies around the negative impacts this has caused, and only 202,126 hectares of commercial forest remains.

275. There has been only minimal reforestation. Balsa, a fast growing tree species, is increasingly been grown in the rich soil of the northeast, particularly to replace the failing cocoa industry. Balsa grows an average height of 1.5 meters a month and harvesting can take place after 3–4 years, yielding 5,002 m per hectare. Balsa prices in 2010 were K30/m<sup>2</sup>. ENB also has one gold mine in the Baining area, and Nautilus Mining company has a mining concession to mine the seabed underwater for mineral deposits around volcanic vents – gold, copper and silver.

### **3. Access to Services**

276. World War I, Rabaul was the headquarters for the German Administration, between the wars it was governed by Australia, and during World War II, it was the headquarters for the Japanese forces. The northern part of ENB has good access to services and is relatively well served by transport links, while the Pomio district to the south and the inland Baining mountain areas are poorly served with little access.

### **4. Education**

277. ENB has a long history of western education and a literacy rate of 82% (26% higher than the national average). The net admission rate is 97.4% (ages 6–14 years) while the net enrolment rate is 78%, with 47,797 out of a total school age population of 61,147 enrolled in 2010. While this is much better than many parts of PNG, it still falls short of full schooling for all children, partly due to lack of financial support from parents.

278. There is a high attrition rate from Grade 3 to 8 (70%), especially for girls at Grade 6 to 8. Only 35% of students in Grade 10 continue on to Grade 12, while 25% go on to attend tertiary education. ENB has 342 elementary schools teaching in about 15 languages, 149 primary schools, 2 high schools, 9 secondary schools, 8 vocational schools and 3 further education colleges.<sup>139</sup>

279. Most children in Raluana LLG have good access to schools, and in the Gazelle Peninsula the great majority of students (88%) attend schools within 2 km of a road, which is unusual for PNG. During consultations with the community all said their children attended school, and only a few families could not afford to send children away from home to secondary schools or tertiary education.

280. The local Raluana primary school caters for six wards and has over 600 pupils. There is also an elementary preparatory school for 7–10 year olds. Many children go on to secondary

<sup>139</sup> East New Britain Strategic Development Plan 2011-2021, pp.47-48.

school either Kokopo High School, Malabaunga High, Olsh, or Vunapope, all accessible by road.

## 5. Health

281. ENB's health services delivery system is considered inadequate with low indicators for immunization coverage, maternal mortality, supervised deliveries, tuberculosis and a significant increase in the incidence of HIV and AIDS.<sup>140</sup> To some extent this is caused by the decline in the effectiveness of the health system, with non-functional aid posts,<sup>141</sup> unreliable cold chain systems and inconsistent deliveries of medical supplies. These challenges are compounded by the lack of appropriately educated and motivated health care workers. A new National Health Plan (2011-2020) has been launched in response to this deteriorating situation.

282. Accessibility is still an issue in the province as a whole, and unless this is addressed there will be little improvement in infant mortality rates, which stand at 54/1,000 live births (2009). ENB's life expectancy is 56.6 for men and 57.7 for women, which is low by international standards. Progress depends on controlling the HIV/AIDS epidemic and improving infant and child health.

283. In 2010 there were 243 reported cases of AIDS, and the growth rate is 1.67%. Fourteen Voluntary Counseling and Testing sites exist established through Provincial and Districts AIDS Committees and more than half of HIV positive people have access to antiretroviral drugs. TB is still a leading cause of admission to health facilities with almost 2,000 cases a year, and the second most common cause of mortality. Malaria is also common and causes many deaths. The incidence rate is 2.4% (2009).

284. The Butuwin Health Centre is less than a ten-minute drive from Ialukua, and provides primary health care, mother and child health services, voluntary testing and counselling for HIV/AIDS and minor surgery. More serious cases are referred to the provincial hospital. Butuwin is relatively well equipped and supplied, as it is close to the hospitals and supply centers.

## 6. Other Services

285. Generally ENB is perceived to be a peaceful province but law and order problems are increasing with increasing urbanization and in the many resettlement areas. Offences such as murder, grievous bodily harm, robbery, pack/gang rape other sexual offences and drug and alcohol abuse are becoming more common in local communities. The two main causes of crime have been identified as lack of income generation and alcohol.<sup>142</sup> Parents at Raluana, are concerned about the lack of employment opportunities for young people, which give rise to youth crime and teenaged pregnancy.

286. Drug abuse and consumption of illicit spirits (particularly homemade jungle juice (jj) locally known as 'iava' is increasing. People prefer locally produced alcohol because it is affordable. Marijuana is also cultivated, especially in the hinterlands of Gazelle and Pomio and supplied to other parts of the province.

<sup>140</sup> *East New Britain Strategic Development Plan 2011-2012* p.44.

<sup>141</sup> In 2009, 23 of the 106 aid posts were closed. *East New Britain Strategic Development Plan 2011-2012* p.45.

<sup>142</sup> *Kokopo Crime Survey*, Law & Justice Sector Program (AUSAID) and NRI, 2007.

287. ENB has established a Provincial Law and Order Committee chaired by the Provincial Administrator with representatives from the District Court, Police, the Corrective Institutions Service, Community Based Corrections (Probation), Chamber of Commerce and key provincial officials from Community Development, LLG, Justice, Lands, Planning and Research and the Legal Unit. The emphasis is on restorative justice and rehabilitation in line with the National Law and Justice Policy. There are less than 250 police officers in the province. The Kerevat Corrective Institute provides inmates with skills training and farming experience for rehabilitation. Community programs encourage communities to accept back those who have come out of prison. 80% of current offenders in the Correctional Institution are committed for sexual offences ranging from rape to incest.<sup>143</sup>

288. There is a village court in Raluana. Most cases are concerned with social problems (drinking alcohol, using marijuana, and domestic issues, including violence against women) and land disputes. Other services include a bank in Kokopo, less than 20 km by road.

### **C. Kombiu on Matupit Island, East New Britain**

#### **1. Population and Land**

289. On the other side of the Simpson harbor at the northern head lies Matupit Island, near the Tavurvur cone, formerly a peri-urban village of Rabaul by the old airport. The island was completely devastated by the 1994 eruption disaster. Because Matupit was very close to the town, and had very dense populations, it relied almost exclusively on town income opportunities, which have disappeared, since the disaster.

290. It is now heavily covered in silt and ash (tephra), with just a few remaining damaged buildings and some more recently built bush material huts. Much of the vegetation is still to recover, and the former copra plantations no longer exist. The community's cocoa trees on the north coast were also destroyed. The TA team visited the site briefly, and met people from Ralam community, from Wards 1 and 4 of Kombiu LLG. Kombiu Rural LLG has a population 9,544 (2011) and land area 26.4, but many families exist partly on their old land, and partly on resettlement blocks near Kokopo where there is land to garden. So far 15 families have returned to Ralam.

291. The land for the proposed navaid has been disputed since the eruption. Previously there was a lighthouse, which was destroyed. Now the matrilineal clan landowners from Ralam are claiming the land, which the Seventh Day Adventist church says belong to them. This conflict appears to have arisen because of the potential to earn money from the land where the new lighthouse will be built. Informants said, "People don't understand why lighthouses are important. They just want the money." The dispute has the potential to delay installation of a navigation aid until it is resolved.

#### **2. Economic Activities**

292. The families who have returned to their destroyed village live in semi-permanent huts beside the ruins of their old permanent buildings. In some cases people rotate between their Tolai land and their Baining/Warangoi resettlement block for one or two weeks at a time. In other cases the family splits so that some stay on the old Tolai land near Rabaul, while

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<sup>143</sup> East New Britain Strategic Development Plan 2011-2012 p.66.

others farm the new Baining block. The new areas, cleared from bush, often start as family garden plots, since land is unavailable for food gardens in Gazelle due to their use for cocoa and other cash crops such as copra, lowland coffee and balsa. As the productivity for food gardening falls two or three years later, blocks are planted with cash crops.

293. The livelihoods of the Ralam families interviewed, consists of gardening on resettlement blocks far away, fishing when the weather is favorable, and growing small amounts of subsistence vegetables in the silt covered land, (mainly tapioca, bananas, eggplant and 'kalara' greens). But their most important source of income is the collection and sale of megapode eggs ('wild fowl') which are gathered in their hundreds from the foot of the volcanic cone in pits in the warm sand. The eggs are considered a delicacy and are sold in local markets for K2.50 an egg, some earning as much as K250 a day. Although the community claims not to be taking all the eggs, there is no proper sustainable management plan to ensure the birds' survival into the future.

294. This is a much poorer area than Raluana due to the eruption. Many young people do not have jobs, and children must walk or travel by PMV for about 5km to primary school at St. Martins in Rabaul.

295. Although all families received new land near Warangoi (three hectares) during the first phase of the restoration program, or a smaller portion in the second phase, most feel the land is not big enough and some complained that it was swampy and unsuitable for agriculture. They also received ten sheets of iron for each family to build a house, but had to provide their own bush materials and frame before receiving the iron. But the main complaint from families who had returned to the area, was that the resettlement block was too far from the sea, so they couldn't fish or access the wild fowl eggs on which their livelihoods largely depend.

296. The community owns one dinghy used to travel to Kokopo market to sell fresh and dried fish. There are also 15–20 canoes in the community, used for fishing and for journeys to the volcano to collect eggs.



**Figure 20: Ruined Village at Matupit Island near Tavurvur Volcano**



**Figure 21: Magapode Eggs Collected from Warm Volcanic Sands**

297. The Kokopo market is one of the best in the country, and has been re-built since the eruption using a beautiful traditional style. It is clean, well run and intensively used by the farmers and communities living all over the Gazella Peninsula, including the two subproject sites described.



**Figure 22: Kokopo Market**

### **3. Service Delivery**

298. Matupit lies within the hazard zone under the volcano, and it has been the policy of the ENB Provincial Government and the Gazelle Restoration Program, to discourage all from returning to the hazard zone, apart from a few businesses in the west of old Rabaul which are dependent on port facilities. There is therefore no service delivery to any part of Matupit, and families who have chosen to return must travel to access services in Rabaul town or further afield.

299. The earthquake has had not just economic impacts, but also severe social impacts, as the population is dispersed and demoralized. Drunkenness, domestic violence, theft from gardens, neglect of children and youth crime and vandalism were reported in the community consultation.

300. There are three churches on Matupit: the United Church which was established here in 1975, the Catholic church, and the Seventh Day Adventist. This also provokes divisions within an already divided community. While those consulted said they were prepared to help with lighthouse security, this is obviously going to be difficult if the on-going land conflicts are not properly dealt with.

301. The situation has not been helped by political interference, where a senior politician is reputed to have promised landowners on Simpson harbor, huge sums of money as compensation for lighthouse land.

## BENEFITS AND RISKS

### A. Direct Impacts

#### 1. Poverty impacts

302. People living in remote coastal communities in PNG have limited access to cash income. The results of a socio-economic survey of a sample of coastal communities<sup>144</sup> carried out in six provinces for the feasibility study of the first nav aids project, show that only 6.6% of those surveyed operated a business, and a further 9.6% earned wages from formal employment. Other main sources of cash income were from selling fish (55%) and other produce including betelnut, coconuts, and vegetables (about 45%). The World Bank poverty assessment<sup>145</sup> shows that, among people who live below the poverty line, the worst-off are those who depend on cash crops and domestic agriculture both in terms of the incidence of poverty (42.5% and 19.0% of the poor respectively) and its severity. In contrast, those who earn wages in the formal sector or run businesses account for only 9.8% of the poor, and the severity of their poverty is much less. PNG policy supports the diversification of income opportunities away from agriculture, combined with measures to increase agricultural income. The project will address both priorities, by providing for rental income and service fees in rural coastal communities for the monitoring and security of nav aids, and by improving the maritime safety environment, which will improve the access of local growers to distant produce markets through improvements in safety for coastal shipping.

#### 2. Arrears

303. The government installed a large number of nav aids long ago (25–30 years ago in some cases) on land which it had deemed had been acquired (i.e., had become state land) under compulsory procedures. However, the government largely neglected to pay landowners the amount at which the land was valued at the time of acquisitions. Essentially, no payments have been made for land for the nav aids network, causing a high level of dissatisfaction in rural communities. Landowner frustration was sometimes expressed by vandalizing nav aids and many have not worked for years for this reason. The 99 nav aids to be replaced, are on sites which in the main were not bought or leased by the state. One of the direct impacts of the project on the poor comprises a one-off cash payment to land owners as arrears for past occupancy and use. The NMSA policy is to pay a standard lump sum amount that is both fair to landowners and affordable to the government. The amount paid is based on Valuer General's Office (VGO) estimates of the value of the site, rather than calculations of annual past rent payments. This usually amounts to around K20,000 per site. The current project estimates that for 99 nav aids the expected land arrears would be K1,980,000, which is the responsibility of the government to pay.

304. Even if payments had been made at the valuation price at the time of acquisition, it is quite likely that frustration would still be high, since a one-off acquisition payment does not address the interests of subsequent generations of landowners. For this reason, land needed for the project will, as far as possible (taking into account landowner preferences) be leased, so that a continual stream of land payments is made to landowners and their heirs. This is in line

<sup>144</sup> A Report on Socio-Economic Profile for the Rehabilitation of Navigation Aids System Project in Papua New Guinea, Dept of Anthropology and Sociology, UPNG, October 1999. The surveys were carried out in sample communities in Central/NCD, West New Britain, New Ireland, Manus, Milne Bay, and Madang provinces.

<sup>145</sup> World Bank, *Papua New Guinea Poverty Assessment*, 2004.



with practice under the new Land Groups Incorporation Amendment Act 2009 and the Voluntary Customary Land Registration Act 2009, which came into effect in 2011.

### **3. Lease Payments**

305. The lease payments under the project for a plot of land either 10 meters by 10 meters (100 square meters), or site in the sea 40 meters by 40 meters (400 square meters) are currently valued at around K2,000, although this valuation is based on the 2008 schedule, which is out of date. A 2012 new schedule has been developed by the VGO, but not yet printed for distribution. It will add another 30% to land costs. For the 132 replaced or new navaid, it is estimated that the annual lease payments for land will total K784,000 plus K1,121,600 for survey, valuation and mediation services, over the next five years.

306. Lease payments and the arrears discussed above, will be paid to the legitimate landowners, who must be identified by standard land acquisition procedures carried out by the Department of Lands and Physical Planning (DLPP) and VGO. Under new legislation, the landowners must form an Incorporated Land Group when leasing land to the state. The number of persons that will receive these payments will vary from site to site, depending on family size, number of clans with customary rights to the land, etc. It will be the government's responsibility to pay for any arrears as a past occupancy fee, while the Project will cover lease payments for the future.

### **4. Outright Purchase of Land**

307. Where possible outright purchase of land will be avoided. However, in the case of Milne Bay, a previous Governor declared that all navaid should be bought outright, which he saw as a way of avoiding future land disputes. Currently, 30 payments have been made to purchase sites in Milne Bay, two sites are pending payments, while another 55 sites are being leased. This raises potential difficulties for the project, as landowners receiving differing amounts are likely to become disgruntled, if total lease payments eventually outstrip the amount paid for land purchases. Moreover, seeing others receiving an annual fee may compound the frustration. It is desirable therefore, that NMSA hold discussions with the Milne Bay Provincial Administration to try to standardize the mode of payment in the province, in line with current law.

### **5. Community Payments for Security and Monitoring of Navaid**

308. Under the project, community members will be asked to provide light monitoring and security services for the navaid, to ensure lights keep functioning, that outages are reported promptly, and to avoid theft and willful damage or vandalism. Community members will also be asked to clear any trees or bushes that may grow up and obscure the light, and generally to keep the site tidy (if on land). The members of the community will be organized through a Community Lighthouse Committee, who will open a bank account, and decide how the funds should be spent. The CLC agreement to be signed with NMSA stipulates that at least 20% of the funds should be utilized for activities benefitting women and children, to be decided on by women themselves. (The CLC will have 50% female and 50% male membership). The CLC will be responsible for monitoring and reporting outages, decisions about what community projects should be undertaken, disbursement of funds to social development projects, and providing annual reports and acquittals to the NMSA.

309. The community payments under the project for the next five years are estimated to be K1,078,000 (at K27,500 per site), which has been adjusted upwards to include Consumer Price



Index (CPI) increases of 10% on the current K2,200 per site. The project will therefore provide a modest but continuing stream of payments, which can have a positive effect on local development efforts in very poor communities.

## **B. Indirect Impacts**

310. The project will produce substantial indirect benefits for the poor in coastal communities due to (i) improved maritime transport services, and (ii) creation of a permanent social structure, the CLC, with funds to facilitate community activities. The CLC fulfills a crucial function in the project implementation strategy, and its importance extends beyond the immediate need for navaid monitoring and security. The CLC is an organization of key community representatives who recognize the value of the navaid to the community, and who can facilitate public information and education about navaids, water and boating safety, and other matters. One of the outputs of the project is to increase community awareness of water safety among sea faring communities. The CLC will receive training in its role and responsibilities and is expected to play an important part in campaigns to improve safety practices at sea. In some communities with well established local structures, the CLC may become a subcommittee of an existing village development organization.

311. Navaids, as well as guiding international and coastal shipping, should improve the safety of small craft passenger transport around the coast, thereby potentially improving:

- access to services such as health and education: high infant and maternal mortality rates in remote areas are directly the result of poor access to health services, among other factors;
- retention rates for children at school, particularly at girls at secondary level where many must travel by sea to distant boarding schools. It is usual for students to board during term time and only go home about twice a year. Improved shipping services as a result of safer conditions, will increase school students' mobility and ability to return home regularly, thereby increasing their motivation to attend school and their parents willingness to let them go; and
- social and economic benefits and opportunities: local production is higher where people can more easily market agricultural produce and handicrafts. Food shortages can be experienced when local stores run out of stock, so increased shipping would address this, contributing positively to food security in remote areas, particularly the far flung atolls where food shortages can be severe.
- These indirect benefits are not obtainable from the navaid itself, but require complementary social and service delivery activities that take advantage of the improved safety environment through navigational services. Navaid installation goes hand-in-hand with the formation of CLCs in order to ensure that complementary activities occur and the indirect benefits of the project are fully achieved.

312. Currently commercial passenger ferry services are limited but include two franchise shipping companies operating in the New Guinea islands. Poor navaids restrict ferry schedules to daylight hours and good weather in most locations, and prohibit entry altogether in other locations (together with the lack of wharves and jetties). A large portion of passenger traffic is done by small dinghies (estimated at 42% in Milne Bay and 70% in Madang province).<sup>146</sup>

<sup>146</sup> ADB, Rehabilitation of Maritime Navigation Aids Project, *Socio-Economic Impact Estimation*, July 2000.

Unsafe boating practices are common. Accidents are often unrecorded and complete accurate figures for accidents and losses at sea are unavailable<sup>147</sup>, but small craft are frequently lost at sea and deaths are unacceptably common. Nav aids cannot solve the whole problem, but they will improve navigation of small craft at night, in bad weather, and when out of sight of land. The project also aims to improve water safety practices, and coupled with the introduction of the new Small Craft Act, 2011, this should result in an improvement in the situation.

313. The livelihoods of 55% of coastal residents depend on full or part-time fishing for cash, especially in West New Britain, New Ireland, and Manus. Night fishing is often productive, but is severely limited by a lack of nav aids. Support for nav aids improvement is strong among small-scale fisherpeople, as nav aids greater increase the scope and safety of small scale fishing. Boats can travel further to more distant reefs and fishing grounds if there are lights to guide them. Greater catches combined with better access to markets will increase fishing income, as well as local nutrition.

314. The improved safety of national and international transport has the effect of avoided costs for local communities in that they are at reduced risk of damage and environmental pollution from ship disasters. Every year there have been major incidents of ships grounding in sensitive bio-diverse environments around PNG shores, causing long-term damage to coral reefs and fishing grounds, and littering some critical areas with rusting iron hulks of abandoned ships. A container ship carrying sugar, which hit a reef contaminated the Jomard passage area for kilometers, killing off all sea life in the area. The introduction of a better network of nav aids cannot prevent all accidents, but it can substantially reduce the risk of such disasters, and their impacts on local communities.

315. Health services in coastal villages are provided by government and by non-governmental organizations, predominantly church groups. Health services however, are limited and not provided in all villages. More than half of coastal residents need to travel outside their communities to access any health care services, an estimated 50 %<sup>148</sup> travel more than one hour to reach a health clinic. Nav aids, by improving transport service frequency and safety, will improve access to health services. In addition, the project will provide workshops and training in HIV/AIDS and STI awareness and prevention to address the risks of transmission. This training will be provided by qualified trainers and will be delivered to separate men and women's groups.

## **1. Social and economic risks and negative impacts**

316. The risks most commonly identified in consultations with communities and stakeholders are that greater outside influences, through the visits by the nav aid construction crews and higher volumes of people travelling through ports of call, could expose young people particularly, to alcohol, illicit drugs, teenage pregnancies and STIs. Transport systems and infrastructure development are recognized internationally as contributing to increased HIV transmission. Young people, especially young women and girls, are extremely vulnerable to infection, in the context of PNG's pronounced gender inequality and cultural and religious factors, together with widespread lack of knowledge and understanding of the causes of HIV/AIDS and its prevention.

<sup>147</sup> NMSA Search and Rescue Unit keeps records of some of these accidents, but not all are reported.

<sup>148</sup> *A Report on Socio-Economic Profile for the Rehabilitation of Navigation Aids System Project in Papua New Guinea*, Dept of Anthropology and Sociology, UPNG, October 1999 p.10. The surveys were carried out in sample communities in Central/NCD, West New Britain, New Ireland, Manus, Milne Bay, and Madang provinces.

317. This risk will be mitigated by the Project through training and awareness raising for both the contractor's installation crews, and the recipient communities. Workshops will be held for both men/boys and women/girls run by trained facilitators. The CLC will also monitor the social risks and report on these to NMSA.

318. Given the central significance of land, culturally, socially, and spiritually, as well as economically, there is a risk of disputes arising between different landowning groups regarding their respective claims to the navaid sites which can potentially impact on access to the land for construction and maintenance purposes by both government officials and by contractors carrying out the work. Once a site is identified and it is known that lease rents and community service fees will be paid, these become a new focus of factional disputes within a community, as landowners and community members compete over who will receive the rents/service fees. In past development ventures there has often been a confusion of failed expectations, lack of information about the details of projects, and lack of clear agreed mechanisms for the sharing of benefits. Western methods using Memorandum of Agreements or contracts frequently remain fundamentally incompatible with the 'Melanesian way' of redistributing material wealth.<sup>149</sup>

319. The risks of conflict over land rents and community payments, is higher in communities with a high degree of social stratification and a lack of cohesion, where political interference and/or capture of benefits by elites may occur. Frequently, the demand for resource development in PNG has undermined indigenous models of community leadership even at the community level where clans, like landowner companies are now presenting themselves as the recipients and redistributors of resource rents.<sup>150</sup>

320. Transparent mechanisms and rules for the distribution of project payments earmarked for particular landowning groups, or for the benefit of the entire community are needed. In the past, the CLCs have received little guidance of this, and the benefit sharing has not been monitored rigorously by NMSA. The 20% of funds earmarked for women's activities is almost never adhered to. It is also not known whether women receive any of the rent money from landowner leases. These results in many complaints to CDD, who estimate that 60% of the complaints they deal with, are regarding fair distribution and transparency in benefit sharing. A Project Grievance Mechanism has been designed to ensure such complaints are dealt with promptly and effectively.

321. To deal with the risks around benefit sharing, the project implementation unit (PIU) will include two national Community and Lands Coordinators, and the CDD of NMSA is increasing the number of staff (with two based in regional offices), so they can visit communities at least quarterly, to monitor progress and ensure that benefits reach those they are intended for. CLCs will receive more training in their roles and responsibilities, including managing funds and training in simple bookkeeping for those managing the funds and bank accounts. Having a women signatory to the bank account, should mitigate the risk that women do not receive their intended benefits. The CLC will be required to distribute copies of their reports and acquittals, to ensure the community knows how community payments are spent. Since the community fees are quite small, CLCs will be encouraged to save over a number of years in order to be able to plan larger projects.

322. PNG women's traditional land rights are frequently threatened by modern developments, and they become marginalized. In order to ensure women too benefit from community

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<sup>149</sup> Filer, C.

<sup>150</sup> Filer, C.

payments, they will make up 50% of the CLC. In addition, all Community Development Officers (CDOs) working for the Project will receive some training in land administration and mediation, so that they may better monitor the benefit sharing.

## **SAFEGUARDS AND SOCIAL STRATEGIES**

### **A. Integration of Social Strategies and Safeguards in Project Design**

323. The design of the project includes specific measures intended to promote equitable benefits for all social groups and to safeguard against potential negative impacts. These include a Resettlement Framework (which includes a Grievance Redress Mechanism); a SPRSS; a GAP incorporating an HIV and AIDS awareness and prevention program; and an improved Community Engagement Program (CEP) to increase community participation (including a revised Lighthouse Committee Monitoring and Security Agreement).

324. ADB safeguards focus on sensitive issues such as resettlement, gender inequality and the rights of indigenous minorities. They aim to minimize harm, rather than necessarily focusing on deliberate facilitation of social progress. They are essentially defensive strategies designed to ensure safeguards against adverse social outcomes, as well as mitigating and offsetting unavoidable adverse impacts. They are also usually quite narrowly targeted at disadvantaged groups or communities. However, ADB also promotes positive mainstreaming strategies, which are a fundamental means by which NMSA and the project can seek to understand social dimensions of their work, basing it on good social analysis, and promoting social justice and community cohesion in the communities close to the sites where they wish to place navajds.

325. ADB's approach is in line with the United Nations policy for ethical development projects, incorporating the principle of free, prior and informed consent (FPIC). FPIC refers to the right of indigenous peoples and local social groups to be fully informed about, and to give their consent freely to, any development, which may affect their land or livelihoods before the development takes place. There are a range of international instruments which contain various elements of the right to FPIC: the most important and comprehensive statement of the FPIC principle is found in the 2007 United Nations Declaration on the Rights of Indigenous Peoples.

**Table 7: Elements of Free, Prior and Informed Consent**

<ul style="list-style-type: none"> <li>• Free should imply no coercion, intimidation or manipulation</li> </ul>
<ul style="list-style-type: none"> <li>• Prior should imply that consent has been sought sufficiently in advance of any authorization or commencement of activities and that respect is shown for time requirements of indigenous consultation / consensus processes</li> </ul>
<ul style="list-style-type: none"> <li>• Informed should imply that information is provided that covers (at least) the following aspects:               <ul style="list-style-type: none"> <li>(a) The nature, size, pace, reversibility and scope of any proposed project or activity</li> <li>(b) The reason(s) or purpose(s) of the project and/or activity</li> <li>(c) The duration of the above</li> <li>(d) The locality of areas that will be affected</li> <li>(e) A preliminary assessment of the likely economic, social, cultural and environmental impact, including potential risks and fair and equitable benefit-sharing in a context that respects the precautionary principle</li> <li>(f) Personnel likely to be involved in the execution of the proposed project (including indigenous peoples, private sector staff, research institutions, government employees and others)</li> <li>(g) Procedures that the project may entail</li> </ul> </li> </ul>

326. The strategies described below, show how FPIC has been incorporated into the project design.

## **B. Indigenous People**

327. As noted above, the objectives of ADB's Safeguard Policy Statement (2009) are to (i) avoid adverse impacts of projects on people, and where possible; (ii) minimize, mitigate, and/or compensate for adverse project impacts on the affected people when avoidance is not possible; and (iii) help borrowers/clients to strengthen their safeguard systems and develop the capacity to manage safeguard risks.

328. Almost all peoples affected by the navigation aids program are indigenous people to PNG, living on customary land. However, they do not match the criteria of indigenous people in the ADB frameworks, being neither distinct minorities nor specifically discriminated against. The project will require only small parcels of land or reef, which are normally non-productive sites on the foreshore or in the sea, and the installation of a navaid is not expected to have any adverse impacts. This will not affect people's houses, structures, food gardens nor normally, their cash crops. Nor will it affect their rights to fish around the navigation aids or collect seafood from the coastline. An Indigenous People's Plan for the project is therefore not thought to be necessary or appropriate for this project.

## **C. Land Acquisition and Legal Framework**

329. PNG has a unique land tenure system where 97% of the land is under clan-based customary ownership that is linguistically and culturally diverse. About 85% of people in PNG gain a significant portion of their nutrition from subsistence farming supplemented by wildlife, and many livelihoods depend on forests. This means that in the context of many large-scale resource developments, which have alienated customary land and not necessarily brought significant benefits to local people, land ownership is a contentious issue. The SABL program

which meant that 5.1 million hectares of land in PNG was leased mainly to foreign owned corporations, resulted in a Commission of Inquiry into corrupt practices and has led to further concern over so-called 'land grabs'.<sup>151</sup>

330. Disputes over land, resources and benefit sharing remain key justice issues at the local level. Informal dispute resolution structures outside of the state remain strong at local level but face increasing challenges with changes in society and questions about the quality of their outcomes and the treatment of women. In areas where rapid changes in natural resource development are occurring or where there is pressure on land, there are inevitably more conflicts that follow these developments and traditional authority structures are not always sufficient to govern and resolve disputes. Recent legislative reforms aim to improve land administration, land dispute settlement processes and customary land development.<sup>152</sup>

331. As a legacy of its colonial law, PNG has a Westminster parliamentary system and common law with significant local adaptations. Fundamental rights and freedoms are enshrined in the Constitution, and custom is incorporated as part of the underlying law. The judiciary has an overall reputation as being independent, though its effectiveness is hampered by issues of capacity and lack of resources. Justice services have been affected by years of inadequate coordination and poor administration, which have created a gap between those who can afford to seek legal redress through the courts and the majority who are unable to. Independent legal advice is available only to those who can afford lawyers. It is therefore particularly important that acquisition of land for the project be conducted in a transparent, participatory and honest way, to ensure that the processes, which govern land acquisition by the PNG state are followed in good faith.

332. The **Land Act** (1996) sets out the procedures for the government to acquire customary land required for public purposes. The key provisions of the Act are (i) the government may acquire land, including improvements on land, through agreement or compulsory acquisition; (ii) in case of negotiated purchase, the government and customary owners mutually agree terms and conditions; (iii) even in case of compulsory acquisition, participation of leaders of customary landowners and local government representatives is sought in several steps; and (iv) compensation for affected customary land is provided to the landowner groups/clans, while compensation for land improvement (e.g., crops) is provided to individual land users.

333. The CDD of NMSA are responsible for working with the Office of the Surveyor General, Department of Lands and Physical Planning, and the VGO at national and provincial level to ensure that the government procedures are followed and, that customary rights are protected. The use of the ADB Land Acquisition and Resettlement screening check list during project preparation is also a necessary safeguard for the project. It should be noted that Goal Five of the Constitution calls for development to be achieved primarily through the use of PNG's social and political structures. Too often in the past, this requirement has largely been ignored when large resource developments are planned, or state registration of land has taken place.

334. In the case of navigation aids, the land which needs to be alienated, is small (100 m<sup>2</sup> on

<sup>151</sup> Greenpeace, *Up for Grabs: Millions of hectares of customary land in PNG stolen for logging*, Greenpeace Australia Pacific, August 2012.

<sup>152</sup> These three areas summarize concerns raised at the 2005 National Land Summit, out of which the reference to the Constitutional Law Review Commission called for a review of Land Groups Incorporation Act. In 2009, the Justice Minister moved before Parliament, two amendment bills on the Land Groups Incorporation 1974 Act and Land Registration Act. The reforms on land dispute settlement processes undertaken through the Magisterial Services, include having in place specialist land court magistrates, at provincial and district levels.

land, and 400 m<sup>2</sup> at sea). Landowner representation can take place through the Incorporated Land Group (ILG) mechanism, taking advantage of the recent amendments, which have significantly improved the processes governing incorporation and management of ILGs. This has the advantage of building on existing and familiar legal structures in PNG. However, if the local landowning group have not previously incorporated, this is quite a complex burdensome process (for example, demanding the birth certificates of all members of the group, and requiring a sketch of the boundaries of the land over which ownership is claimed, including areas of dispute). The NMSA has considered whether it is necessary for a new ILG to be incorporated specifically for the purpose of facilitating the project, and has been advised by the DLPP that it is now necessary. Under the 2007 amendments to the *Land Groups Incorporation Act 1974* all current ILGs will cease to exist in 5 years' time unless they are reincorporated under the new procedures. The constitution of any newly incorporated landowner group should include provisions, which enable to ILG to carry out its responsibilities under the project.

335. The Land Acquisition and Resettlement Framework for the project describes in detail the processes to be followed when land for nav aids is being purchased or leased, and describes the Grievance Redress Mechanism available for affected people who feel their rights have not been respected.

#### **D. Participation: Review of community engagement program**

336. The CEP of the NMSA CDD aims to reduce the level of theft, vandalism, or willful damage on nav aids and to engender 'ownership' at the community level through responsibility for the protection and security of the system. It also tries to protect the interests of women and ensure their equal participation in the program and as sharers of the benefits. Between 2000 and 2003 when the program first started, it also included maintenance of the nav aids, but this has now been outsourced to the contractor, NAWAE, (as it was considered too difficult to supply the necessary materials, people did not have the electrical skills, and too risky for untrained community members to be climbing high structures). NAWAE is currently responsible for regular maintenance checks on batteries and lights, for cleaning guano off the tops, any painting required or replacement of the protective cladding. Communities therefore are only required to ensure the lights remain working, and that no bush or vegetation obscures the lights. The CEP governs engagement with two groups of people:

- Landowners, usually customary landowners, to whom rental is paid; and
- Communities: those people living around the area paid to clear vegetation around land lighthouses and prevent theft and vandalism of the nav aids.
- Often landowners are also part of the local community, but sometimes they are not.

337. **The communities:** The Community Engagement process is outlined in the *Community Based Security and Maintenance of Lights Program Implementation Framework* which was developed under the first ADB funded Rehabilitation of Navigational Aids Project prepared in 2005. This is now somewhat out dated but states that:

*"The CEP team precedes the engineers, informing provincial governments, local level governments, community members and landowners about the upcoming rehabilitation of the light structure. The teams were comprised of NavAids Project staff and national and provincial government staff. In some cases, NGOs were also members of the community engagement teams. The CEP teams made initial visits to NavAids related communities to, among other things,*

- *Establish Community Lighthouse Committees (CLCs);*
- *Facilitate the signing of the Agency Agreement, allowing the contractors access to the site while the land issues were being resolved;*
- *Put in place the Community Service and Maintenance Agreements (CSMAs) to establish the legal grounds for CLCs' authority should vandalism of the light or the structure take place and to provide ongoing maintenance and security of the site; and*
- *Begin the process of lands purchase (for Phase I) or lease (for Phase II and Phase III)" <sup>153</sup>*

338. There are actually two agreements used to date: the Agency Agreement which simply allows access for maintenance purposes and involves no monetary benefits for the community, and the Community Security and Maintenance Agreement which:

- Is an agreement between a community, represented by the Chairperson of the duly appointed or elected Community Lighthouse Committee, and NMSA;
- Delegates certain tasks to the community for a period of twenty years in return for a fixed annual fee;
- Requires the community to carry out basic maintenance (grass cutting) to do its best to prevent vandalism and to inform the police and the CDD if vandalism occurs;
- Specifies an annual fee of K2,000, to be increased at four year intervals in line with the consumer price index;
- Provides for the imposition of penalties if the navaid is damaged, or bonuses if it is not; and
- Specifies how the money received is to be spent (for the benefit of the community) and who should be the beneficiaries.

339. There are a number of problems with these agreements and the process as outlined above. It seems that 'Agency Agreements' (with the CLCs) are signed to allow contractors to access the site, **before** all land issues have been resolved. This violates the principles of FPIC. While many sites have land issues that may take years to resolve, the CDD needs to ensure that participatory processes comply with FPIC and ADB principles, and that the community has freely given consent for the project after being fully consulted and informed about all the issues. Secondly, the CLCs seem to have insecure legal status, and it is not clear how they relate to landowners, or any prior existing ILG. These needs to be clarified with communities, so they are clear about the two kinds of payments being made under the project: for land leases and for community services. While the wording of the agreement suggests they last for 20 years, on an ongoing basis, this is not completely clear in the agreement, and has not yet been tested, although there does seem to be a provision to extend the agreement beyond 20 years.

340. A new version of the Community Security and Maintenance Agreement<sup>154</sup> has been prepared by NMSA's legal manager, and has been reviewed by NMSA's CDD and the Social and Poverty Specialist. It now awaits approval from NMSA management. This can be found in Annex 3.

<sup>153</sup> *Community Based Security and Maintenance of Lights* document, NMSA, p.4.

<sup>154</sup> The agreement has a new title which more accurately reflects its purpose: *The Community Security and Lighthouse Monitoring Agreement*.



341. The CLCs are required to submit acquittals (to account for their use of monies) and reports on a quarterly basis, but this rarely happens as stipulated. Not all people in these communities are educated, and many live in isolated areas with poor communications. The quarterly reporting requirement seems onerous and it seems that most CLCs simply ignore it, since penalties for not reporting do not seem to be enforced. The CDD have agreed that changing reporting requirements to annual reports, and making submission of the report a condition for the next year's payment, would be more effective. The CDD also is interested in providing courses on the roles and responsibilities of CLCs, management skills, leadership and basic book-keeping to help the committees fulfill their responsibilities.

342. Another issue is whether, in fact, the CLC loses any benefits when the lights are damaged or stolen. When referring to 'vandalism', the NMSA are usually talking of theft of the lights, solar panels and batteries. There is not much to steal on buoys or day markers although they have been known to disappear if there is a local dispute. Some communities do their best to protect the lights, but if the navaid is distant from villages, other passing people may be responsible for the damage rather than the local community. Penalising the local community would simply put the lights at risk. In principle, paying people not to damage public facilities involves what could be seen as a moral hazard. However, since the CEP began and agreements came into force, there has been a huge reduction in the number of outages and vandalism of lights. The Navigation Outage Record for 2011 shows 29 outages, of which only 15 were due to theft or vandalism in the year (9%), while when the ADB programme started in 2000, more than 90% of the lights were missing or damaged. NMSA now has CLC agreements in force with 166 communities where there are lights. 24 of these are on state land. The CLCs are paid on the anniversary dates of their agreements (by province). CDD keeps a comprehensive excel database of all navaid with details of locations, membership of CLCs, status, payments to communities and landowners, and other details.

343. **The landowners:** Most of the navaid is on land leased from landowners but some is purchased outright. As noted above, the Milne Bay Governor disliked the lease method of obtaining land, believing it led to more land disputes and therefore insisted that all the land for navaid in Milne Bay be purchased outright. This was done in almost all cases and it did seem to limit the number of land issues. However, landowners now know that others are getting lease rents annually, and realize that some of these will add up to more than the total purchase price they received. There is now a possibility of protest from landowners who want their land leased, despite the fact that technically, it no longer belongs to them. Most received between K14,000 to K20,000 when they sold the land to the government. The land valuation is undertaken by the Valuer General's Office, located in the Department of Lands and Physical Planning. NMSA pays for valuers to visit the site, and they then provides NMSA with the figure to be paid, according to the government's schedule of compensation. The 2008 schedule on which compensation payments were based has been reviewed and a 2012 updated one will be printed in the next month. It is expected to increase payments by 30%.

344. NMSA's CDD uses a standard Lease Agreement which:

- Is a 20-year agreement between the customary, private or church owners of a navaid site and the NMSA;
- Specifies the area to be leased: 100m<sup>2</sup> per light on land or 400m<sup>2</sup> per light at sea;
- Provides an easement to provide access to the site;
- Specifies the annual rental, to be between K1,600 and K2,000 per year (in practice the amount was always K2,000), with four-yearly revisions in line with

the consumer price index. (This has not happened yet, but planned for 2013, when landowner will receive a 10% increase). Increases need the approval of the NMSA's Finance, Audit and Risk Management committee and of the Board; and

- Initially provides a lump sum in settlement of all outstanding claims for past occupancy for older navais.

345. NMSA has a budget of \$850,000 per year to pay for the agreements, and it is underspent. Generally, there is supposed to be a mandatory 5-year lead time for developments (including land alienation), in order to allow time for proper consultation and for land issues to be resolved. This does not always happen, and as a lot of navais were in existence from the 1900s, the 5-year planning period did not apply.

346. Disputes still arise, even on government land, which may, in certain circumstances, revert to being customary land. The first agreements for navais were entered into in 2006, and at the moment there are 166 sites of which:

- 87 have land investigation reports (LIRs) completed;
- 30 have received payments for outright purchase (all in Milne Bay);
- 2 payments are pending;
- 55 have lease agreements with NMSA;
- 79 sites still have not have LIRs completed. Of these 24 are on state land and do not require LIRs or payments; 23 LIRs are being worked on, or awaiting endorsement by the Provincial Administrators; and
- 32 on-going land disputes pending a resolution.

347. The land disputes delay the completion of LIRs and consume an inordinate amount of the CDD's staff time. When disputes are settled the back payments are made according to a valuation rather than the usual K2,000 lease amount. While the Provincial Lands Division is very helpful in assisting with these problems, at the national level it is more difficult to get satisfactory services, since the National Department of Lands is over-stretched and lacking in capacity. An example of this is the case of Yule Island, in Central Province near Port Moresby, where there is a long-lasting dispute originating in the 19<sup>th</sup> century, when local land owners on the mainland who used the island for gardening (but did not reside there), sold it to the Catholic Church for a mission station. The mission set up a church, a vocational school and other services, attracting people from Port Moresby and other villages along the coast. Many who came originally for school, settled on the island and their families have been there for over a century. Since rent payments are now to be made for the old lighthouse site, this has provoked conflict between the various parties: the church, the original mainland owners, and the long-settled migrants who call it home. The case has now gone to the land courts, but the original sale documents are still being tracked down in the archives, a task which has fallen to the NMSA staff, as the DLPP do not have time to pursue this.

348. In addition to the above agreements, Navais are protected by the *Protection of Transport Infrastructure Act, June 2011*, and by awareness campaigns. Each year, the CDD talks to communities in selected provinces, to make the community aware of the value of navais, to themselves and to others. They also take part in Environment Day activities to raise awareness of maritime safety issues and a new teachers' resource book has been written to incorporate water safety issues into the school curriculum. The book has been trialled in three provinces and published. It will be distributed by the Ministry of Education later this year, and all primary schools in PNG should receive copies.

349. The new Protection of Transport Infrastructure Act explicitly recognizes navigational aids as transport infrastructure, provides for penalties for anyone willfully damaging them or threatening to do so in order to win compensation. It adds a stick to the carrot offered by payments to landowners and communities. The motivation for the new law seems to lie in the road sector, but its value to maritime transport infrastructure is clear. There have been two successful prosecutions of people vandalizing lights, which resulted in jail terms of up to three years.

## **E. Community Engagement Program**

350. The Community Engagement Program for the project will be based on the previous Community Based Security and Maintenance of Lights Program<sup>155</sup> prepared for the first navaid project, and will basically follow similar procedures but with some improvements. It builds on the processes and achievements of NMSA's previous community work and is designed around the principles of free, prior and informed consent and ADB's safeguards policies. It involves on-going consultation, communication, training, awareness activities, land acquisition and compensation processes, and monitoring, with the aim of ensuring the safety and security of navaid structures and lights. The NMSA is responsible for implementing government regulatory functions in order to facilitate a safe, efficient and environmentally responsible shipping sector for the industry and the communities around PNG's coasts. The CEP is a critical element in enabling NMSA to fulfill its mandate.

### **1. Staffing Requirements**

351. The CEP will be implemented by two CDOs from the CDD, who will be seconded to PIU. These posts will carry the title: Community and Lands Coordinators (CALC). They will be advised by a Gender, Community and Lands Specialist (part time), and a Media/Communications Specialist (part time) who will be responsible for water safety training and public awareness campaigns. The purpose of the team is to support the implementation of the subprojects in compliance with the social and environmental objectives and safeguard policies that have been agreed. The terms of reference for recruitment of community development staff are:

#### **Gender, Community and Lands Specialist (international, 18 person- months)**

- (i) Conduct feasibility assessments, including baseline data collection, detailed feasibility studies, and social impact assessment including gender analysis.
- (ii) Assist NMSA counterpart (Community and Lands Coordinators) with initial ongoing public consultations for feasibility assessment and implementation of civil works.
- (iii) Undertake Poverty and Social Assessment for the sites.
- (iv) Ensure that all sites are implemented in compliance with the Project's Resettlement Framework and ADB's requirements on social safeguards, including: (a) screening of subprojects for their potential social impacts; (b) preparing due diligence reports for subprojects; (c) collaborating with Provincial Land Officer and/or District Land Officer to carry out necessary work (e.g., land surveys), and preparation and implementation of RPs for subprojects that may involve land acquisition; (d) assisting in drafting and finalizing Memoranda of

<sup>155</sup> PNG National Maritime Safety Authority, Josephine Gena, *Community Based Security and Maintenance Program Implementation Framework*, December 2005.

Agreement (MOA) with landowners; (e) assisting in disclosure of relevant safeguard information to affected persons and local stakeholders; and (f) assisting in implementation and monitoring of social safeguard/resettlement activities.

- (v) Develop relevant indicators and gender disaggregated socio-economic data collection strategies in collaboration with the Marine Civil Engineer in order to monitor and assessment project performance.
- (vi) Provide support for implementing and monitoring of GAP.
- (vii) Assist in contracting of socio-economic data collection and reporting to national consultant, and provide ongoing support for monitoring contract performance.
- (viii) Review bids and advise evaluation team on capacity of contractor to implement proposed mitigation plans.
- (ix) Develop checklists and questionnaires to monitor and evaluate the compliance of contractors on contractual obligations related to social aspects.
- (x) Develop education and awareness program and produce relevant instruction and awareness materials for raising understanding and awareness on gender, HIV/AIDS and STIs, and safety among target communities, especially women and girls, and civil works contractors.
- (xi) Discuss and review work plan and training approach with the PIU, incorporating any input received, before finalizing curriculum and materials.
- (xii) Demonstrate the education and awareness program in target communities, holding separate sessions for men and women, as well as for civil works contractor workers.
- (xiii) Build the capacity of and provide guidance to the Community and Lands Coordinators for providing the education and awareness program, as well as project implementation and monitoring including the GAP.
- (xiv) Review socio-economic monitoring reports submitted by national consultants as part monitoring of overall contract performance.
- (xv) Work with the Maritime Safety Specialist and NMSA to ensure small craft safety programs adequately address gender issues.

#### **Community and Lands Coordinators (national, 60 person-months x 2)**

- (i) Assist the Gender, Community and Lands Specialist in conducting feasibility assessments, including baseline data collection, detailed feasibility studies, social impact assessment and gender analysis.
- (ii) Work with the Gender, Community and Lands Specialist in carrying out necessary work for any land acquisition and leases for temporary use of land and preparation and implementation of resettlement plans, if needed, following the Resettlement Framework in compliance with ADB requirements.
- (iii) Assist in initial and ongoing public consultations for subproject feasibility assessment, MOA signing, and implementation of civil works.
- (iv) Assist in preparing community participation plans for each subproject and reporting feedback as part of each subproject assessment and progress report.
- (v) Ensure that the activities and targets described in GAP are integrated in project activities and targets.
- (vi) Monitor and report on implementation of GAP.
- (vii) Carry out gender awareness training for all project consultants and staff to ensure that they understand their roles in promoting and ensuring gender equality in the delivery of project activities.

- (viii) Carry out training on HIV/AIDS and STIs in target communities, holding separate sessions for men and women, as well as for civil works contractor workers.
- (ix) Carry out safety awareness training with support from the NMSA and the Media/Communication specialist.
- (x) Prepare and submit to the PIU reports detailing dates, scope of work undertaken, gender disaggregated lists of participants, and a discussion of issues on the completion of each activity.
- (xi) Advise on the integration of socioeconomic mitigation and facilitation measures into tender documents and ensure provisions are made for contractors to include their mitigation approach and costs in proposals/bids.
- (xii) Provide assistance to contractors to implement, monitor and report on mitigation plans
- (xiii) Monitor compliance with socioeconomic management plans and ensure compliance with socioeconomic assurances under the project by using checklists and questionnaire to be developed by the Gender, Community and Lands Specialist.
- (xiv) Report monitoring results to the Gender, Community and Lands Specialist.
- (xv) Assist the Maritime Safety Specialist in ensuring small craft safety programs adequately address gender issues.
- (xvi) Facilitate participation of Government counterparts in ongoing capacity development activities to ensure skills transfer for improved sustainability of designs.

#### **Communication/Media Expert (international, 4.5 person-months)**

- (i) Develop an effective advertisement strategy for maritime safety awareness and develop a detailed advertisement plan.
- (ii) Coordinate with national media to announce future safety awareness events and advertise the importance of safe shipping using various media.
- (iii) Participate in safety awareness workshops, collect materials, and report the workshops via media.
- (iv) Document the advertisement strategy and plan, and coordination approach to national media.
- (v) Undertake any other related duties as required under the Project.
- (vi) Build capacity of NMSA counterparts in all of the above.

#### **Communication/Media Expert (national, 4.5 person-months)**

- (vii) Assist international Communication/Media Specialist in developing an effective advertising and public awareness strategy for maritime safety awareness. Develop a detailed public awareness campaign plan.
- (viii) Facilitate coordination with the national media to announce future safety awareness events and advertise the importance of safe shipping using various media.
- (ix) Lead preparation of safety awareness workshops, collect materials, and report the workshops via media.
- (x) Support documentation of the advertising/public awareness strategy and plan, and coordination approach to national media.
- (xi) Undertake any other related duties as required under the Project.

## 2. Lessons Learned

352. The previous Community Based Security and Maintenance of Lights Program was an innovative and successful community program, being the first transport project in PNG which included a well designed community approach. However, with the benefit of experience from implementation, it is clear that there are lessons to be learned. The CDD was understaffed (with only two CSOs, one manager, and an assistant) for the workload they were expected to handle. It was envisaged that CDOs would make at least quarterly visits to communities to support the CLCs and carry out supporting activities. In reality, the most they could manage after initial activities around navaid installation, was usually an annual visit, unless a particular problem presented itself.

353. Secondly, the initial collection of demographic and socio-economic data to create village profiles, was frequently rushed or omitted altogether because of pressure of work. All CDOs could do with more mentoring to develop their social research skills and participatory techniques, as community engagement requires a deep understanding of social relations of power, customary land ownership and use, the sexual division of labor, poverty and social differentiation, local dispute mechanisms, and culturally specific gender relations.

354. The land acquisition processes, whether for lease of land or outright purchase are complex and time consuming. The CDD staff have the responsibility for contracting staff from other departments, such as the Department of Lands and Physical Planning, the Valuer-General's office, and Magisterial Services who must complete the Land Investigation Reports, Valuation Certificates and any mediation in the case of disputes. All the logistical arrangements for mediator, surveyor and valuer field visits are done by the CDOs. Staff from these collaborating government departments may be slow, inefficient, or just plain overstretched and the timings of their visits is not something over which the CDD has control. On occasion the initial land investigation is not done thoroughly which inevitably results in some beneficiaries being missed, or disputes overlooked, leading to dissatisfaction and/or conflicts. If mediation of land disputes fails, it can take 6 to 12 months to get a decision over who owns land. If the disputing parties do not agree with the decision of district courts and appeal, this time can stretch up to five years. For example, the land for the lighthouse on Yule Island has been in dispute since 2007 and is now at the Provincial Land Court.

355. Care needs to be taken that sites for navaid do not violate spirit or sacred places (*plesmasalai*), and restricted or taboo areas. Each clan usually has their own spirit being and spirit places, which are a traditional source of power for the clan. These spirits of '*masalai*' are often found in rocky outcrops, caves, reef sections, streams, creek mouths, trees or other significant physical features. Clan leaders have a responsibility to look after spirit places on behalf of their clan. Some places are made taboo or restricted for a short period of time, and others are tabooed for a long period. Some places, such as particular beaches or reefs may be permanently restricted to women – especially around New Britain and New Ireland.

356. Lease or purchase: The Milne Bay Provincial Administration complicated the land acquisition processes by insisting on direct purchase of sites from landowners. This means that there are now two systems of land tenure, which has the potential to upset landowners living in close proximity but subject to different arrangements.

357. Disbursement of payments has been another challenge. Communities are required to open a bank account to receive payments from NMSA, but many of the navaid are in such isolated places, there are no banks nearby. Someone from the community has to travel to the

bank, and sometimes the fuel and accommodation costs can eat into the payments. It is unsafe for NMSA staff to carry large amounts of cash, so this difficulty needs to be considered. With the introduction of mobile banking services in rural areas, NMSA needs to consider using these where possible. The CLCs also need to be held accountable for reporting on funds dispersed, and payments should be withheld if these reports are not forthcoming.

358. The community lighthouse agreement is outdated and was not reviewed every four years, as stipulated. It was also written in difficult legal language, making it hard for community members to understand. The provision that women's groups get 20% of the funds was not implemented in most cases. This may have been partly because most women's groups are church based, and providing funds for one group rather than another, may have been divisive. This requirement has been amended in the new agreement to say that 20% of funds should be used to support women and girls' activities. This gives women a broader choice of what they want to do, and with whom, without predetermining the recipients. The agreement has now been reviewed and updated, but is waiting input from NMSA staff and approval from NMSA management.

359. NMSA encouraged the establishment of Provincial Lighthouse Committees (PLCs) to act as provincial champions and channels for communication with the CLCs. This worked well in some places, but not in others, and most of these PLCs operate on an ad hoc basis. Only PLCs in New Ireland, East New Britain and Milne Bay were endorsed by the Provincial Executive Council, but most do not hold meetings unless the NMSA staff visit the province. There have been discussions within NMSA to change the PLCs into Provincial Maritime Committees (PMC), with a broader set of responsibilities. It is hoped that such a committee could assist NMSA on maritime issues such as the Small Craft Safety Act implementation, Search and Rescue, oil spills and pollution, and not just navigation aids. The plan is to draft a Memorandum of Understanding between NMSA and the maritime provinces to change the name and mandate. The manager of the CDD is currently working on this, and it will be sent to all officers in NMSA for input before being taken forward.

360. Under the previous project, during consultations, the CDOs stressed the importance of communities taking 'ownership' of the navaid. While this is common terminology in development circles, it is somewhat confusing to community members who have been asked to lease or sell their land to the state, which implies that they are no longer owners strictly speaking and have signed over their land use rights. The current project will make special efforts to use more appropriate language, stressing 'guardianship' rather than 'ownership', with local people becoming custodians of the site ("*man namerihusatbailukautim*"). In PNG it is common for sacred or sites of special significance to have a custodian, so this concept is well understood.

### 3. Revised Community engagement program

#### a. CEP process

361. The CEP program consists of a number of stages and activities, which will be progressively implemented as nav aids are constructed and monitored. The following steps are required for each site.

Stage	Activities	Approximate time period
1	<b>Planning:</b> The PIU staff notify DLPP and VGO of intention to commence nav aids rehabilitation and construction work on identified sites during the	One week

Stage	Activities	Approximate time period
	current year. An indicative 5-year schedule of planned construction activities (subject to revision) is presented to the DLPP at the start of the implementation period, and is updated annually.	
2	<b>Identification of communities, information meeting and awareness raising:</b> The Gender, Community and Lands Specialist and CALC in the PIU consult provincial authorities and PLC/PMC to finalize the identification of the specific communities associated with proposed new navaid to be restored or constructed. Determine appropriate transport, seasons, weather, and boating safety issues that may affect logistics of visits. Notify district authorities, LLG president, and ward councilors, to request initial visit and send out <i>toksave</i> to inform communities. Visit community, together with provincial and local authorities, for initial community consultations and to provide information about the project. Distribute prepared information brochures, create interest in the navaid project, and highlight water safety issues. Undertake a preliminary head count and determine number of affected persons.	One week for each site
3	<b>Poverty and social assessment - preparation of community profiles:</b> In each community CEP team identify the principal economic and social activities. Prepare community profiles by collecting information: demographic, livelihood, service provider, economic, community based organizations, modes of transport, communication facilities, government facilities etc. The Gender, Community and Lands Specialist to screen for social impacts of project and prepare Due Diligence Reports.	Two weeks
3	<b>Community Lighthouse Committee:</b> Mobilize community to establish CLC and elect members. CALCs carry out initial briefing of CLC in their roles and responsibilities and put in place the signed Community Security and Monitoring Agreements to establish the authority for CLCs. CLC open bank account.	One week
4	<b>Land acquisition:</b> Begin the process of land acquisition outlined in the Land Acquisition and Resettlement Framework. Provincial and National lands department officials, assisted by the CALCs conduct survey of the land required at each site to determine boundaries and identify any disputes; genealogical investigation to determine legitimate and recognized owners of the land; valuation of the land; and formation of an Incorporated Land Group. If disputes exist arrange mediation through Magisterial Services. Survey Plan and Land Investigation Report (LIR) produced (signed by landowners) and registered with Surveyor General.	One – two weeks
5	<b>Provincial approval:</b> LIR and valuation reports are endorsed by Provincial Administrator, Valuer-General and Department of Local Government and Provincial Affairs.	Two weeks
6	<b>Valuation Certification:</b> Issue of a Valuation Certificate by Valuer-General, DLPP on the basis of the Survey Report.	One month, concurrent with step 5
7	<b>Lease:</b> Prepare a standard lease agreement, which, in the case of an existing navaid site will include provision for advance payment of previous occupancy fees covering arrears by government.	One week
8	<b>Signing of lease:</b> If the landowners agree with the conditions of the lease, appoint a Provincial Lands Officer to attend the site to promulgate the lease agreement with the identified land owners, under the auspices of the CLC. The function of the CLC and provincial authorities is to facilitate agreement of landowners to the stand lease terms. Landowners sign lease agreement. If landowners disagree with the lease conditions and refuse to sign the agreement, convene CLC with support from provincial authorities	One week – 3 months (if agreement is disputed)



Stage	Activities	Approximate time period
	to resolve the issues and obtain agreement.	
9	<b>Lease payment and CLC service fees:</b> The NMSA will arrange payment to landowners and CLC. The CLC will administer funds for the community, making decisions about how the money will be used, in consultation with the whole community.	Recurrent
10	<b>HIV/AIDS training:</b> The CEP team will arrange training for the community in HIV/AIDS and STIs. This will be delivered by qualified trainers, to separate groups of men and women, to mitigate the risk of transmission of infections. Training will also be provided to the installation crew and construction workers.	Two days
10	<b>Lights on:</b> Following installation of the navaid, there will be a ceremony attended by the CEP team, NMSA General Manager (or representative), to bless the site and the mariners, fisherpeople, and travelers who use the navaid. Where appropriate, local symbols will be used to protect the lights from damage. Eg., A <i>gorgorcan</i> be placed on the navaid by the appropriate clan leader to ensure no one interferes with the light.	One day
11	<b>Safety education:</b> Carry out safety awareness training in communities with support from the Communications and Media Specialist. This should include community members, boat owners, and dinghy operators. CALCs should arrange training workshops with local teachers to ensure full utilization of the Water Safety Teachers' Resource book in primary schools.	Recurrent
12	<b>Monitoring:</b> The Gender, Community and Lands Specialist will develop indicators and sex disaggregated data in order to monitor impacts of the project. The CEP team will also monitor and report on the GAP. CLCs will be expected to provide acquittals and reports annually before receiving the next year's payments.	Recurrent

362. The new CEP will continue the well tried practices of the past, but will take account of the lessons learned (above):

- CALC and NMSA staff dealing with communities will receive more training to enhance their skills in project management, social research skills, land law and land mediation. They will ensure that women members of land owning clans are included in lease payments and that CLCs are well supported, with visits every quarter.
- Provincial Lighthouse Committees will be transformed into broader committees and strengthened to support NMSA activities through a Provincial Maritime Committee. Terms of Reference will be developed for the committees and training given by NMSA.
- New land law amendments will be followed including the requirement from DLPP that all landowners form Incorporated Land Groups
- Land investigation teams will visit sites as a group and will include a surveyor, a valuer, an ILG officer, a Lands Investigation Officer, and a Customary Leases Officer as required by DLPP. The team will also invite a Civil Registry officer to complete the process of registering births, which is a requirement for formation of an ILG. Land lease rents will be set under the new 2012 Schedule being published by the Valuer-General.
- More emphasis will be put on awareness raising among the community and more training given to CLCs so that they fulfill their duties. This will include basic management, book keeping, and reporting for those entrusted with the funds.

CLCs also need training about managing their contractual obligations, in how to respond to “lights out” or vandalism emergencies. CLCs will be monitored to ensure that 20% of funds are used for women and girls’ activities.

- A water safety education program will form part of the CEP to be conducted at all sites, targeting women, men, and children. This will be designed by the Media/Communications Specialist. The CEP team will assist in implementation, distributing brochures on safe boating, raising awareness on the Small Craft Act, and distributing NMSA cards with fuel estimates for various sized outboard motors (to help prevent dinghies running out of fuel). The CALCs should also ensure that schools are using the Teachers Resource book on water safety and run workshops for the teachers in primary school.
- The CEP team will investigate alternative disbursement mechanisms, such as mobile banking through ‘electronic wallet’ schemes, available in some rural areas. This will streamline payments and save communities a great deal of time and trouble.
- The CEP will use the new Community Security and Monitoring Agreement with a 10% CPI increase in payments from 2013. The agreement will also include provisions to guarantee local people access to traditional fishing grounds and sea food collection sites.
- The Gender, Community and Lands Specialist, together with the CALCs will explore the possibility of providing a mobile phone to each CLC to report outages, take photos of lights regularly to provide evidence they are working, to receive severe weather warnings or other information they may need. Where possible the phone can be used to facilitate mobile banking.
- To facilitate the idea of ‘guardianship’, CALCs should explore local mechanisms for protecting special sites, and if appropriate, should seek support from community and clan leaders to use ‘*gorgor*’ or other traditional means to ensure the lights are not tampered with. A *gorgor* is a plait of ginger leaves tied around a tree or object to denote that there is tabu or prohibition on a site, or a dispute which makes the area inaccessible. Only certain people are entitled to put or remove a *gorgor*, and it is taken very seriously by everyone. This may be more effective than western type contracts in ensuring the lights are not violated.
- Once community agreements have been signed and lights switched on, a ceremony will be held in the community, with high level NMSA participation, to bless the navaid, with prayers for the safe travel of seafarers and travelers, and commitments to protect the lights. A customary ceremony or feast to mark land lease transfers and contributions to the community is customary, reminds people of their obligation, qualifies the landowning clan as true ‘*papa graun*’ and acts as a form of security. The objective is to ensure everyone understands the value of the lights and their purpose.
- Based on the agreements established under the CEP, NMSA will be responsible to pay the CLCs an annual fee of K2200 for the security and monitoring of the lights and light structures for a period of 20 years. The landowners will be paid an annual site leasing fee of K2,200 for a period of 20 years. The annual payments are an important incentive for ensuring the security and maintenance of the lights. The PIU will assist in the administration of the NMSA payments to ensure that the bank account system is functioning smoothly and that the CLCs/landowners are receiving what is due to them. The PIU will also monitor security of the lights and structures, advising the NMSA Finance and Administration Manager to make bonus payments for those CLCs meeting the

terms of their CSM contracts. The Community Development Unit will advise the NMSA Finance and Administration Manager if vandalism has occurred, thereby bringing CLC payments to a halt.

- Once in place, the landowner lease payments should automatically be paid on an annual basis. No input from the NMSA PIU is required concerning these payments

#### **b. Monitoring**

363. A performance matrix will be developed identifying performance indicators, data sources, data collection frequency, and reporting responsibilities. The CALCs under the oversight of the Gender, Community and Lands Specialist, will each have responsibility for navaid in one region of the country, and will visit navaid sites quarterly to monitor project performance and progress. Monitoring will include review of the implementation of the GAP. CALCs will be expected to provide annual acquittals and reports using standard NMSA forms.

364. Evaluation of the success of the navaid community engagement program, needs to concentrate not just on whether the lights remaining functioning, but on whether the benefit sharing in the community has been successful and has promoted development, rather than causing conflicts and resentments. This means members of a community needs to be consulted to generate feedback on people's satisfaction with the service they have been provided with and gets away from the 'moral hazard' idea of paying people NOT to vandalize.

**ANNEX 1: PERSONS MET**

<b>Organization</b>	<b>Name</b>	<b>Position</b>
<b>National Capital District</b>		
NMSA	Dinah Inape	Manager, Com Devt Dept
	OngeNufuk	Community Devt Officer
	Beryl Eremam	Community Devt Officer/Lands
	UleaWaroi	Education & Safety Officer
Maritime Operations NMSA	Freddie Siroi	Snr Search & Rescue Officer
	Joseph Kabiu	Ship Surveyor/Inspector
Hgdography Unit NMSA	Nicholas Pion	Cartographer/
Community Water Transport Project	Charles Kujur	Community Devt Officer
	Marian Geibob	Community Devt Officer
	Trisha Kuniaka	Community Water Transport Project (CWTP) Engineer
	Sylvia Logoson	CWTP Engineer
World Bank	Laura Bailey	Country Manager
UN Women	Julie Bubukin	Program Manager
NAWAE Construction	Julius Violaris	Managing Director
NAWAE Construction	Adam Hay	Special Projects Coordinator
NAWAE Construction	Captain Naroi	Ship captain
NAWAE Construction	Sherry Sariman	HIV/AIDS Coordinator
<b>Milne Bay Province</b>		
Buanasu Women's Guest House, Samarai	Lisa Gilbert	
Bwanabwana LLG	David Seta Frank	Rural Devt Officer, D.A.L.
Bwanabwana LLG	JonelisLiba	Infrastructure Coordinator
Bwanabwana Assembly	Joshua Jerome	Assembly Clerk
Bwanabwana LLG	LaisaniRoia	Executive Assistant
	GilipasiPudidi	Gesila SDA pastor
	Tau Goweli	Kuianro Technical School Principal
	ImnisieBanian	Wuaro Ward Member
Coral Sea Mariculture PNG Ltd (Pearl farm)	Kim Harvey	Director
Samarai High School	Charley Beiteu	Principal
Samarai Health Centre	Violet Kaiser	Sister in Charge
Samarai Health Centre	Florence Alfred	Nurse
Simagahi Ward (17)	Archie Kaiser	Ward Councilor
Bwanabwana Women's Association	Mai Steven	Guest House Manager
Evennett Shipping	Abel Evennett	Manager
Kwato Ward	Sheldon Andrew	Ward Councilor
Alotau Hospital	Barry Kirby	Doctor
<b>East New Britain Province</b>		
Women's Group, Ralam, Matupit Island, Kambiu LLG	Julie Wuat SaraimaGuguna Sarah Wuat Jeage Amen	Community members
Gazelle Restoration Authority	Peter Buak	Project Manager
	Joe Eriman	Contracts Manager
Wide Bay Conservations Association	Elizabeth Tongne	Director

<b>Organization</b>	<b>Name</b>	<b>Position</b>
Kokopo Community Development Division, ENB	Philip Kuamin	Project Manager, Remedial Services
ENB Planning Division, Kokopo Provincial Govt	Jane Larne	Manager, Social Programs
ENB Provincial Administration	Elpin Samson	HIV/AIDS Coordinator
Ialakua Community, Raluana, Kokopo, ENB	ClealandRupen Ruben Pakat	Ward Councilors
Women's Group, Ialakua Community, Raluana, ENB	RoddyAinui Judith Vuruvung Claudia Ainui Evodia Stanley Relvie Samuel	Community members
NMSA Regional Office, Kokopo	Titus Kabiu Kay Burua	Ship Inspector Office Administrator

## ANNEX 2: FIELD CONSULTATION GUIDES

1. Protocol / courtesy visits (in the morning when team arrives)
  - Meeting with community leaders, ward committee members to introduce team
  - Tell them purpose of the visit and project objectives
  - Discuss how to organize the consultations – including individual interviews, focus group discussion (men, women, young men, young women or mixed group of leaders)
  - Agree people to interview (village recorder, WDC president, church official, teacher, vulnerable and poor people)
  - Identify venue for FGDs
2. Briefing meeting for community (if considered advisable) – to set up interviews and FGDs
3. Key informant interviews for community members, officials and organizations: Fit in around people's schedules. No more than 40 minutes
4. Questions for individuals (as appropriate). Explain the following:  
**Participants do not have answer questions and can change their mind and withdraw if they want to**  
 "If you complete the questionnaire, you will be agreeing to the use of the information provided to help design the project. However, in the event that any question makes you feel hesitant or uncomfortable, you have the right to not answer and you may withdraw from this research at any stage without disadvantage to yourself of any kind."  
**What use will be made of the data or information?**  
 "Only the researchers (two people) will have access to the raw data or information from the questionnaire. The primary outcome of the PROJECT field consultations will be a report detailing background issues, findings, as well as recommendations for the project. You are welcome to see the report."
5. For small community or focus group discussions: Use Village Profile form as a basis for questions.

### 1) Gender

Male	Female
1	2

*Please circle only one number*

### 2) Age range

16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	60-65	65>
1	2	3	4	5	6	7	8	9	10	11

*Please circle only one number*

## 3) Present Occupation

Salaried employment in private sector	1
Salaried employment in government sector	2
Runs own business	3
Farmer (subsistence)	4
Farmer (selling produce)	5
Housewife	6
Unemployed	8
Other (specify here)_____	9

*You may circle more than one option here*

## 4) What is your position in the community position (positions of leadership or other community functions)

--

## 5) How long have you resided in this district?

Always	1
6 months or less	2
6-12 months	3
1-2 years	4
2-5 years	5
5-10 years	6
More than 10 years	7

*Please circle one number but if the answer "Always" is circled than skip Q 14*

6)	How many people in the community? What are the clans/subclans and their location / number? What is their language? Other than this village, where else are they found?
7)	What services, facilities, infrastructure are available locally? What is the quality of these? (Are they working / functional?)

8)	What are the main sources of livelihoods for people in the community? What is the division of labor between men and women?
9)	What is the approximate average monthly income? How many poor people are below this average, and why? How many people in the community would you say are experiencing hardships? Is this getting better or worse over the last five years? Why? What factors cause this?
10)	Are the lands customary or is some privately / state / church owned?
11)	The government is planning to improve navigation aids throughout PNG. (reef lights, light houses, solar panels for lights, channel markers). Do you know why nav aids are needed? Do you think this project is a good idea? (Yes/No) Why?
12)	Has your community experienced any safety problems at sea/boat safety in the last five years? What were these? (e.g., People drowned? Boats lost? Canoes damaged? Ships grounded?)
13)	Do you own land here? Would you be willing to provide land for nav aids Are there any land disputes or landowner issues in the community?
14)	Would you be interested and available to participate in a maintenance committee to ensure the nav aids are protected and are maintained in good order? Who should participate in such a committee?
15)	How will the proposed navigation aids affect the people of your community/province (positive or negatively)? Women and Men? (Possible social and economic benefits or costs)
16)	Are there any concerns or issues associated with the installation or rehabilitation of nav aids in your community? If yes, how could these be addressed?
17)	Have you any recommendations for the government and your community to address the issues related to boat safety, the proposed nav aids and any hardships identified in the community?



### Community Profile Form: Villages Closest to Navigational Aids

Village name	District	Province	Village Population	No of women	No of men	No of households

Interviewer's name & gender	Date of profile	Contact person in village

1.	<b>Brief description of village</b> and type of navigational aid – existing or proposed (laitoktok, hauslait)
2.	<b>Language and cultural data:</b>  a) Tribe/clan name(s)?  b) Tokples / languages?
3.	<b>Land:</b>  a) Type of land tenure (customary, individually registered, state, church)?  b) Who owns land where proposed navaid will be/is situated? (Papa/mama graun)
4.	<b>Economic data:</b>  a) List of commercial activities? (Stores, other businesses) (Al kainkainsamting long kamapembikpelabisnis)  b) What are the main cash crops grown?  c) Do villagers have passbooks for banking? (Yes/No/Some – no?)

	<p>d) Do they have access to other food sources which can be sold? (Fish, wild foods, forest products?)</p> <p>e) Are there any shipping services/boat taxis serving the community? Number? Type?</p> <p>f) Are there unemployed people (men, women, young people?) How do they support themselves for daily living?</p>
5.	<p><b>Transport/ Maritime and navigational aids (Rot bilong transport)</b></p> <p>a) Proximity: Describe where and how far people must go for major services which are not in the village (e.g. bank, market, hospital, health centre, school), where they usually go, and what transport is used (boat, canoe, ship, road, aeroplane, walking, other)</p> <p>b) Boats: How many people in the community? No. of female owners? No. of male owners? Do young people have access to boats?</p> <p>c) Who does the fishing in the community? Where do people fish?</p> <p>d) How safe are the boats? Is overcrowding on boats and canoes frequent/common/occasional/not a problem in this village?</p> <p>e) Outboard motors: Can people fix motors? Is maintenance carried out regularly? (Do women ever do this? Would they want to?)</p> <p>f) Has your village lost people in boating accidents? If so, how many and when? (No of men/women/children?) What was the cause?</p> <p>g) What are the three most frequent sea routes that your village travels to? (List them) How much do these routes cost? What type of boats are used?</p> <p>h) Are these routes overcrowded/busy?</p> <p>i) Do you think the community would pay more money if the boats were better and not overcrowded? If yes, how much more? Could men and women pay equally?</p> <p>j) Would new navigation aids or lighthouses help the community? Would the</p>

	community be prepared to have them installed on their land or reef?
	k) Would the community (men/women/young people) be willing to help with maintenance on the lighthouse area?
6.	<p><b>Social services:</b></p> <p>a) Is there a primary school in the community? Y N If not, where do children go to school?</p> <p>b) Is there a secondary school in the village ? Y N If not, where do children go to High School?</p> <p>c) Is there a health centre? Y N</p> <p>d) Is there a Village Court or Village Magistrate Y N</p> <p>e) How many churches? List by denomination:</p>
7.	<p><b>Social problems:</b></p> <p>a) What are the main social problems?</p> <p>b) Is vandalism (bagarapim) a problem in this village?</p> <p>c) Do you know if any navigational aids have been vandalized?</p>
8.	<p><b>Map:</b></p> <p>Sketch a map of village and attach, showing where the navigational aids (laittoktok) will be located. Draw the sea, houses, wharf, church etc</p>

### **ANNEX 3: REVISED COMMUNITY LIGHTHOUSE COMMITTEE AGREEMENT (DRAFT)**

The Community Security and Maintenance of Lighthouses Agreement has been reviewed by NMSA's legal manager, and by the Manager of the NMSA Community Development Department, in consultation with the ADB Social and Poverty Specialist. A draft is attached below. The new agreement has financial implications which will need to be discussed with NMSA and the ADB PPTA team.

### **COMMUNITY SECURITY AND LIGHTHOUSE MONITORING AGREEMENT (DRAFT)**

**THIS AGREEMENT is made on the ..... day of ..... 2012**

#### **BETWEEN:**

**THE NATIONAL MARITIME SAFETY AUTHORITY** is a statutory body established by the *National Maritime Safety Authority Act 2003*,

hereinafter "the Authority".

#### **AND:**

**THE village of**.....within close proximity of the Navigational Aid site more commonly known as.....Lighthouse established on the land/sea area of .....in the.....District of the .....Province,

hereinafter "the Community"

#### **WHEREAS,**

The **Authority** is responsible for:

1. Coordinating matters concerning maritime safety, marine pollution prevention and search and rescue operations at sea in accordance with the NMSA Act;
2. Establishing and controlling Navigational Aids including Lighthouses, in accordance with the Merchant Shipping Act;
3. Ensuring that Lighthouses are lit in order to provide safe navigational services to seafarers.

The **Community** is responsible for:

1. The security and management of the lighthouse area;
2. Reporting any damage or outage of Lighthouses which have been subject to vandalism, or wear and tear

Both parties are associated due to the sites on which Lighthouse are built and intend to enter into agreement to keep Lighthouse sites secure, clean and tidy.

**THE** parties hereby agree as follows:

# **1. DEFINITIONS.**

In this Agreement, unless the context requires otherwise:

**“Authority” means the National Maritime Safety Authority or any officer of the National Maritime Safety Authority including the Community Development Officer .**

**“Community” means the village/community living within close proximity of the Lighthouse site**

**“Lighthouse site ”means one hundred square meters (100m<sup>2</sup>) parcel of land or the two hundred square meters (200m<sup>2</sup>) parcel of reef upon which a structure designed to emit light from a lamp and lenses as an aid to navigation for maritime vessels at sea or on inland waterways is located.**

**"Quarterly" means a period of 3 months commencing on 1 January, 1 April, 1 July or 1 October in any year.**

**“Vandalism” means the defacing, damaging, or theft of a Lighthouse structure and/or equipment by a person or persons (see Section 448 Criminal Code Act)**

## **PART I - TERM OF THE AGREEMENT**

# **2. TERM.**

1. The term of this Agreement shall be twenty (20) years commencing on the date this Agreement is made.

## **PART II – TYPE OF SERVICES AND PAYMENT**

# **3. SERVICES AND FEES.**

1. The Authority offers to
  - a. Engage the Community to provide monitoring and security of the lighthouse and general clean up of the Lighthouse site.
  - b. Pay to the Community a fee for providing security and cleaning services to the Lighthouse site.
2. The Community accepts the Authority’s offer and agrees to provide monitoring and security to the Lighthouse site for a fee. The site must also be kept clear of anything that would obstruct visibility from sea.

### **PART III - OBLIGATIONS OF THE AUTHORITY**

#### **4. AMOUNT AND METHOD OF PAYMENT OF FEES**

The Authority shall:

1. Pay the Community
  - a. after confirming that the Lighthouse site is in a clean and tidy condition and has not been vandalized or equipment stolen
  - b. The sum of Four Thousand Kina (K2,200) every year for the provision of monitoring, security and bush clearance services.
  - c. Review the annual payments every four years in line with the Consumer Price Index
2. Pay sum of two thousand two hundred Kina (K2,200) by way of cheque to the Community's bank account.
3. Provide access to the Lighthouse site in order for the Community to fulfill its obligations under clause 9 and 10 of this Agreement.
4. Conduct inspections of the Lighthouse site every quarter of a year,
5. Convene meetings and obtain annual reports from the Community.
6. Guarantee the community its traditional fishing rights in the vicinity of the lighthouse site, and the right to collect seafood on the foreshore and reef

### **PART III - OBLIGATIONS OF THE COMMUNITY**

#### **5. ESTABLISH A COMMUNITY LIGHTHOUSE COMMITTEE**

1. There shall be established by the Community, a Community Lighthouse Committee (CLC) to fulfill and carry out the obligations of the Community under this Agreement and to manage the funds provided by the Authority appropriately for the benefit of the community.
2. The Community in the presence of the Authority shall convene a meeting to establish the CLC
3. The Authority shall oversee and record, the establishment of the CLC including the selection of representatives of the CLC and election of the Chairperson/Executives.

#### **6. COMMUNITY LIGHTHOUSE COMMITTEE MEMBERS**

1. The Community shall choose persons from the Community to form the CLC. The composition of the Committee shall be representative of all sectors of the community, for example such as:
  - a. a female representing women
  - b. a person under 21 years of age representing young people and youth groups
  - c. a boat owner representing boat owners
  - d. a land owner representing land owners
  - e. a church representative

2. The Committee makeup must be 50% female and 50% male, with women having a least one (1) executive positions on the Committee. This woman must be one of the signatories to the bank account.
3. The following persons shall by virtue of their title be invited to be members of the CLC:
  - a. The elected Councilor of the ward
  - b. A Community Police officer
  - c. A Village Court Magistrate
- 4 The Committee will be no less than five (5) but not more than seven (7) members.

## **7. CHAIRPERSON OF THE CLC**

1. The CLC shall elect a Chairperson and executive officers from persons comprising its members.
2. The Chairperson and executive officers shall be elected by a simple majority. The bank account must have at least two signatories, of whom one must be a woman.
3. The term of the Chairperson and executives of the CLC shall be 2 years commencing from the date of signing this Agreement
4. The Chairperson shall sign this Agreement and be responsible for doing all things necessary under this Agreement, including opening and maintaining a bank account into which the fees payable to the CLC under this Agreement shall be kept.

## **8. REVIEW OF THE MEMBERSHIP OF THE COMMUNITY LIGHTHOUSE COMMITTEE**

1. The composition of the CLC shall be reviewed at any time it is felt necessary, and a member on the CLC may be replaced with NMSA approval.
2. The Authority or any member of the CLC may call for the review should there be any concerns about any member of the CLC in relation to their obligations.
3. A person calling for the removal of a representative on the CLC shall set out reasons for the removal or replacement of a representative of the CLC. The member shall have the right to reply to any allegations, following which the NMSA will decide how to proceed.

## **9. MEETINGS OF THE COMMUNITY LIGHTHOUSE COMMITTEE.**

1. The Chairman of the CLC shall hold meetings of the CLC in the Community every quarter of a year.
2. The Chairman of the CLC may hold meetings as often as the business of the CLC requires, and at such times and places as it determines, or as the Chairperson directs
3. The Chairman of the CLC is obliged to hold a meeting whenever the Authority visits the Community for any business under this Agreement.
4. The Committee shall after such meetings hold a community meeting to inform the community of the activities to be undertaken with a financial report.

**10. UPKEEP OF THE LIGHTHOUSE SITE**

1. The Community shall provide clearing services to the Lighthouse site by cutting grass, weeds, shrubs and trees on or near the site
2. The provision of clearing services to the Lighthouse site shall be performed by the groups represented on the CLC in a fair manner
3. The CLC shall assign the person chosen to represent a group on the CLC to lead work on the provision of clearing services to the Lighthouse site.
4. The period of providing clearing services to the Lighthouse site by a group shall be one month
5. The CLC shall rotate each group from its members to carry out the work providing clearing services to the Lighthouse site.

**11. MONITORING AND SECURITY SERVICES TO THE LIGHTHOUSE SITE**

1. The Community shall provide monitoring and security services to prevent vandalism to the Lighthouse site.
2. The Community shall use its best endeavors to prevent any vandalism to the Lighthouse site by
  - a. Performing the tasks mentioned in clause 9 above
  - b. Keeping regular watch of the Lighthouse site
  - c. Reporting any outages to NMSA and local authorities
  - d. Providing a monthly text message to NMSA to confirm the light is functioning

**12. USE OF THE COMMUNITY LIGHT HOUSE FEES**

1. The CLC shall use the fees paid by the Authority for the following purposes only:
  - a. to fulfill the Community's obligations under this Agreement.
  - b. to provide goods or services which will benefit the community as a whole
  - c. to support community projects or develop community assets for the benefit of all
  - d. to support activities for women and girls (20% requirement)

**13. REPORTING**

1. The CLC shall provide to the Authority an annual narrative and financial report outlining the work done on clearing the Lighthouse site, fees received and monies dispersed. This report and acquittal must describe the 20% of funds spent on activities to benefit women and girls.
2. The annual narrative and financial reports must be provided to the Authority one month before the annual anniversary payment dates. Failure to do so will result in the NMSA withholding funds until these reports are provided.
3. The report on the work done on the Lighthouse site shall outline and contain the
  - a. Name of the group in the Community that did the work
  - b. Month the work was done at the Lighthouse site
  - c. The type of work done
  - d. The general status of the Lighthouse site
  - e. The report on the money dispersed shall contain
  - f. Name of the group in the Community that received the fees



- g. The date of payment
- h. The amount paid
- i. Any other ways the fees were dispersed and used
- 4. The Chairperson of the CLC shall report any act of vandalism as soon as practicable to the Police and the Authority.
- 5. The Chairperson and members of the CLC shall assist the Police or the Authority investigate the vandalism

#### **PART IV – MISCELLANEOUS**

##### **14. PENALTY FOR LATE PAYMENT**

- 1. The Authority shall pay a penalty fee of ten percent (10%) of the total fee payable for late payment of fees properly due to the CLC.

##### **15. PENALTY FOR FAILING TO KEEP THE LIGHTHOUSE SITE CLEARED AND SECURE**

- 1. If the Lighthouse site is reported to be in an unclean and untidy state (with vegetation obscuring the light) or the Lighthouse site has been vandalized, the fees due to the CLC for that year shall be forfeited to the Authority.
- 2. Any fee withheld by way of penalty shall be reimbursed, bearing five percent (5%) annual interest
  - a. In the case of the Lighthouse site being unclean and overgrown, upon restoring the Lighthouse site to a cleared and visible state.
  - b. In the case of vandalism, upon the person(s) responsible being identified and prosecuted successfully.

##### **16. BONUS**

- 1. The Authority shall pay a K500 bonus to the CLC if it is satisfied, at the end of any given year, that the :
  - a. Lighthouse site has
    - i. Been kept cleared and tidy by the Community;
    - ii. Not been subjected to vandalism, willful damage, or theft;
  - b. The CLC has fulfilled its reporting obligations under section 13 of this Agreement.

##### **17. REVIEW OF FEE PAYMENTS**

- 1. The parties shall review the amount of fees paid under this Agreement in line with the Consumer Price Index, at the end of the fourth, eighth, twelfth and sixteenth anniversary of the Commencement Date.

##### **18. TERMINATION OF THE AGREEMENT**

- 1. This Agreement may be terminated if the Lighthouse site is

- a. Destroyed or so damaged, that restoration or repairs are not possible within three (3) months ;
  - b. Is deemed by the Authority to be no longer necessary as a marine navigational aid or to be too expensive to maintain by reason of repeated acts of vandalism
- 2. Such termination shall be effective by the Authority serving written notice upon the Community.

## 19. DISPUTES

- 1. Where a dispute under this Agreement arise between the CLC and the Authority which cannot be resolved by the two parties , either party may refer the dispute to a single arbitrator for resolution in accordance with the provisions of the *Arbitration Act* (chapter 46).

## 20. NOTICES

Notices shall be in writing and addressed to the representatives of the parties set out below:

(b) For the CLC:

_____	_____
_____	_____
_____	_____

(b) For the Authority:

General Manager  
 NATIONAL MARITIME SAFETY AUTHORITY  
 P.O. Box 668  
 PORT MORESBY  
 National Capital District

EXECUTED on the.....

day of.....

2012.

Signed for and on behalf of

**NATIONAL MARITIME SAFETY  
AUTHORITY**

) .....

) CHRIS RUPEN

) **General Manager**

In the presence of

)

) .....

) Witness (Signature)

) .....

) (Name in full)

Signed for and on behalf of

**THE COMMUNITY LIGHTHOUSE  
COMMITTEE**

)

)

) .....

)

) Chairperson

In the presence of

)

) .....

) Witness (Signature)

)

) .....

) (Name in full)