Esso Highlands Limited



Papua New Guinea LNG Project

Logistics Road Resettlement Action Plan

PGHU-EH-SPZZZ-480005

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ACRONYMS

| Acronym | Definition | |
|----------------------------|--|--|
| EHL | Esso Highlands Limited | |
| EIS | Environmental Impact Statement | |
| ELC | Environmental Law Centre | |
| ESMP | Environmental and Social Management Plan | |
| FN | Family Number | |
| FRV | Full Replacement Value | |
| На | Hectares | |
| HGCP | Hides Gas Conditioning Plant | |
| IBD | Interest Bearing Deposit | |
| IFC | International Finance Corporation | |
| ILG | Incorporated Land Group | |
| IPCA | In-Principle Compensation Agreement | |
| Lanco | Landowner Company | |
| LBBSA | License-Based Benefit Sharing Agreement | |
| LLG Local Level Government | | |
| LNG | Liquefied Natural Gas | |
| LR | Livelihood Restoration | |
| M&E | Monitoring and Evaluation | |
| O&GA | Oil and Gas Act | |
| OIMS | Operations Integrity Management System | |
| PNG | Papua New Guinea | |
| PNG LNG | Papua New Guinea Liquefied Natural Gas Project | |
| RAP | Resettlement Action Plan | |
| RIT | Resettlement Implementation Team | |
| RPF | Resettlement Policy Framework | |
| RTC | Resettlement Team Coordinator | |
| SIA | Social Impact Assessment | |
| SMLI | Social Mapping and Landowner Identification | |
| VG | Papua New Guinea Valuer General | |

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EXECUTIVE SUMMARY

Esso Highlands Limited (Company) proposes to develop the Papua New Guinea Liquefied Natural Gas (PNG LNG) Project (hereafter 'Project') and commercialize gas reserves within the PNG Southern Highlands and Western Provinces.

Following a re-assessment of available transport and access options a decision has been made to utilize the existing road between Hides and Komo. Necessary upgrades will be made to ensure the safety of the community and to ensure the road can facilitate transport of equipment between the HGCP and Komo airfield with minimal social impact. As a result of this proposed logistics road development some involuntary resettlement is unavoidable.

This Logistics Road Resettlement Action Plan (RAP) focuses on physical and economic displacement resulting from the widening and realignment of the existing road between Komo and the turn-off to the HGCP plant (23.8 km). Two areas in particular require limited construction works: the Talibuni Bridge (0.7 ha construction area) and the Galoma Hale sections (1.6 ha). The permanent area required after construction is 0.4 ha.

The section of road from the Komo Airstrip Access Road to the Waguba Bridge – Section 2 (9.21 ha) – has been included in this report as part of the new logistics road. This section was originally part of the HHR RAP that was approved by the IESC on 21 March 2011, but not disclosed, given the decision to abandon the HHR option after approval had been granted.

Resettlement Goal

The Project's overall resettlement goal is to avoid resettlement where possible, but where unavoidable, to design and implement resettlement in a manner that improves, or at least restores, livelihoods and standards of living of physically and economically displaced persons. This Logistics Road RAP is consistent with goals, principles and processes described in the Project's October 2009 Resettlement Policy Framework (RPF).

The interventions involve unavoidable physical and economic resettlement.

Institutional and Legal Framework

The resettlement process complies with legal requirements and criteria such as the following: those specified in the PNG Oil and Gas Act (O&GA); key PNG National Government institution guidelines; legislation governing both provincial and local governments; and the International Finance Corporation's (IFC) Performance Standards on Social and Environmental Sustainability.

Social, Economic and Cultural Environment

The following linguo-cultural group occupies areas in and around the proposed interventions:

The Huli (150,000) who inhabit the areas northwest from Yalenda through Baguale-Homa-Paua-Yarale-Tari-Koroba, and the area on the western side of the Hegegio/Tagari River from South Komo through to Nogoli-Yaluba-Mogora Pugua-Levani and Tanggi.

Consultation and Disclosure

Consultations and disclosures regarding the proposed developments occurred along Section 2 of the logistics road at Waguba bridge on 1st October 2010.

For the two new construction sites at Talibuni Bridge and Galoma Hale, disclosures were undertaken both in October and November 2011 with follow-up household negotiations during November and December 2011. Communication mediums included written letters, meetings, oral presentations, flip charts, booklets and flyers in English, Huli and Pidgin.

A process of disclosure of documents is in place and will include public dissemination of the Logistics Road RAP. All agreements are provided in Huli, Pidgin and English.

Project Impacts

The list below summarizes the principal impacts:

- One family on the Talibuni Bridge section will be physically displaced. There is one
 residential structure at Talibuni and a spotter's shelter on the Galoma Hale section
 which will be moved to the new road alignment. Along logistics route Section 2 there
 are 30 affected Family Numbers (FNs) split between 18 economic and 12 physical
 resettlements.
- Of the 2.3 ha of land which will be affected during the construction period of six months on Talibuni and Galoma Hale, 0.4 ha will be permanently impacted for the purposes of the road development. The total affected land area including Section 2 is 11.5 ha.
- Impacted land at the two construction sites includes: 202 linear meters of ditch; 0.2 ha of house and mixed garden; garden crops include bananas (128), Chinese cabbage (605) and pitpit (400) for a total of 2044 crops comprised of 791 large, 148 medium and 1105 small plants. There are 473 trees affected including coffee (130), marita (168), casuarina (79) and fig (68). The Section 2 part of the logistics road is 9.2 ha.
- Disruption in social networks is expected to be minimal, as the affected households indicated in the social survey that they will move to a site in close proximity to the Logistics Road and to the same clan land (i.e., Hora clan, Hora Goli sub-clan and Goli Babu lineage) on which they are currently resident. All Section 2 affected FNs have already been successfully relocated during 2010–2011.
- No community infrastructure will be impacted by the development. Relocatees will benefit from the region wide community infrastructure that will eventuate both from the Project discretionary programs and the Government commitments made in the LBBSA. The logistics road is for the most part a Government road and the rebuilt sections will prove beneficial to the public.
- Business compensation packages for 11 trade-stores were paid to households within the Section 2 area. At the two construction locales, there are no direct impacts on businesses or employment. There is a range of market stalls and trade stores at Talibuni which are closed on the Hora side, but open on the Tombe side; these will not be affected. As is the case everywhere in the region, it is expected that landowners will erect more trade stores and houses close to and along the new logistics route.
- The existing logistics road will be utilized by heavy trucks and machinery and this will
 undoubtedly cause an increase both in noise, traffic and dust. The Project's
 environmental management plans for emissions and noise will address these
 impacts.
- There are 11 cultural heritage sites along Section 2 of the Logistics Road but no sites on the two new construction areas. Any chance finds will be subject to appropriate mitigation measures and programs.

- Regional population increase and influx may arise due to construction activities, improved services and employment opportunities.
 - There is no anticipated occupation of the Logistics Road during construction by an influx of migrants. As elsewhere, small opportunist trade stalls may eventually establish themselves in close proximity to the rebuilt road. Moreover, landowners will build new houses along the road to take advantage of the increased traffic and potential customer base.
- Individuals which are especially vulnerable to displacement impacts, e.g., the elderly, disabled or landless, will be identified and provided with special assistance. The female-headed household of the affected FN in the Talibuni area, along with her three young children, have been designated as vulnerable.

Eligibility and Entitlements

The households subject to physical and economic displacement due to loss of house, land, economic trees and / or gardens are eligible to receive damage and deprivation compensation as well as livelihood restoration. Landowners will also be entitled to one-off payments and rental payments for damage and deprivation. Compensation will be paid at full replacement value.

Livelihood Restoration Program

In addition to compensation payments, livelihood restoration programs will be implemented to improve, or at least restore, the livelihoods and standards of living of physically and economically displaced persons. These programs include land-based as well as non-land based activities.

Grievance Management Framework

A Project Grievance Mechanism has been implemented to receive, respond to, and address any grievances made to the Project.

Organizational Roles and Responsibilities

Overall responsibility for the planning, implementation, and monitoring of physical and economic displacement rests with the Company as specified in the RPF. The Land and Community Affairs (L&CA) Department of the Company will be undertaking these activities.

Monitoring and Evaluation (M&E)

Monitoring and evaluation will provide information on whether clan and individual compensation, resettlement and development investments are providing positive benefits, and to indicate the need for any corrective action that may be required to achieve Project resettlement goals.

Resettlement Implementation Schedule

A schedule of tasks has been developed to plan and implement the major components of resettlement over the first quarter of 2012, and continuing into 2013.

Cost and Budget Estimate

All funds for the cost of the Logistics Road resettlement program have been made available by the Project, which is estimated to be US\$3 million.

1.0 INTRODUCTION

Esso Highlands Limited (Company) proposes to develop the Papua New Guinea Liquefied Natural Gas (PNG LNG) Project (Project) and commercialize gas reserves within the PNG Southern Highlands and Western Provinces.

Following a re-assessment of available transport and access options a decision has been made to utilize the existing road (hereafter 'Logistics Road') between Hides and Komo. Necessary upgrades will be made to ensure safety of the community and to ensure the road can facilitate transport of equipment between the HGCP and Komo airfield with minimal social impact. As a result of this proposed logistics road development some involuntary resettlement is unavoidable.

This Logistics Road RAP focuses on physical and economic displacement resulting from the usage, widening and realignment of the existing road between Komo and the turn off to the HGCP plant (23.8 km, see Figure 1-1). Two areas in particular require limited construction works: the Talibuni Bridge (0.7 ha construction area) and the Galoma Hale sections (1.6 ha). The permanent area required after construction is 0.4 ha.

The section between the Komo Airstrip Access Road and the Waguba Bridge – Section 2 (9.21 ha) – of the previously proposed Heavy Haul Road (HHR) is now part of the new logistics road and has been included in this report. This section was originally part of the HHR RAP that was approved by the IESC on 21 March 2011, but not disclosed, given the decision to abandon the HHR option after approval had been granted. The Logistics Road is for the most part Government designated land.

All of these interventions are located within Petroleum Development License 8 (PDL 8) and within land occupied by the Huli ethnic group.

The Talibuni Bridge requires realignment and straightening of the road over the bridge, and the Galoma Hale area requires realignment and straightening of the road to reduce both slope and sharp curves. The land area required for both sections of the road is minimal and is summarized below in Table 1-1.

| Table 1-1: | Land Re | quirement | ts (ha) |
|-------------------|---------|-----------|---------|
|-------------------|---------|-----------|---------|

| Project Site | Roads Edge | Works Extent | Total (ha) |
|-----------------|------------|--------------|------------|
| Galoma Hale | 0.1 | 1.5 | 1.6 |
| Talibuni Bridge | 0.2 | 0.5 | 0.7 |
| Section 2 | - | - | 9.2 |
| Total | 0.3 | 2.0 | 11.5 |

The land-take within the 'road edge' area will be permanent but will result in an improved road for future users. The area within the 'works extent' area will be available after the construction period of some six months. The Logistics Road will be used for the duration of the project (20 to 30 years). Figure 1-2 illustrates the Galoma Hale site layout and Figure 1-3 shows the layout for the Talibuni Bridge area.

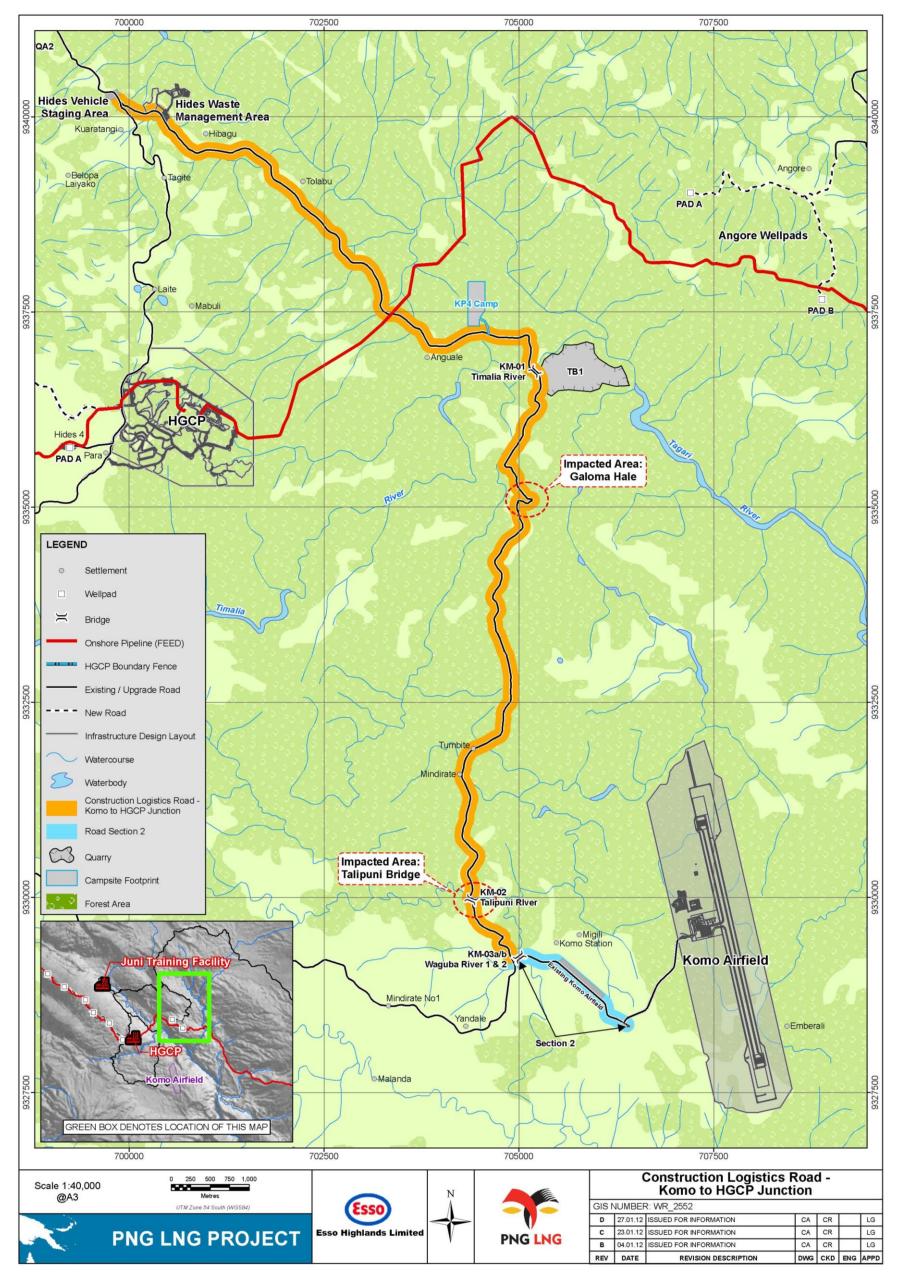


Figure 1-1: Logistics Road—Location of Two Sites to Be Upgraded

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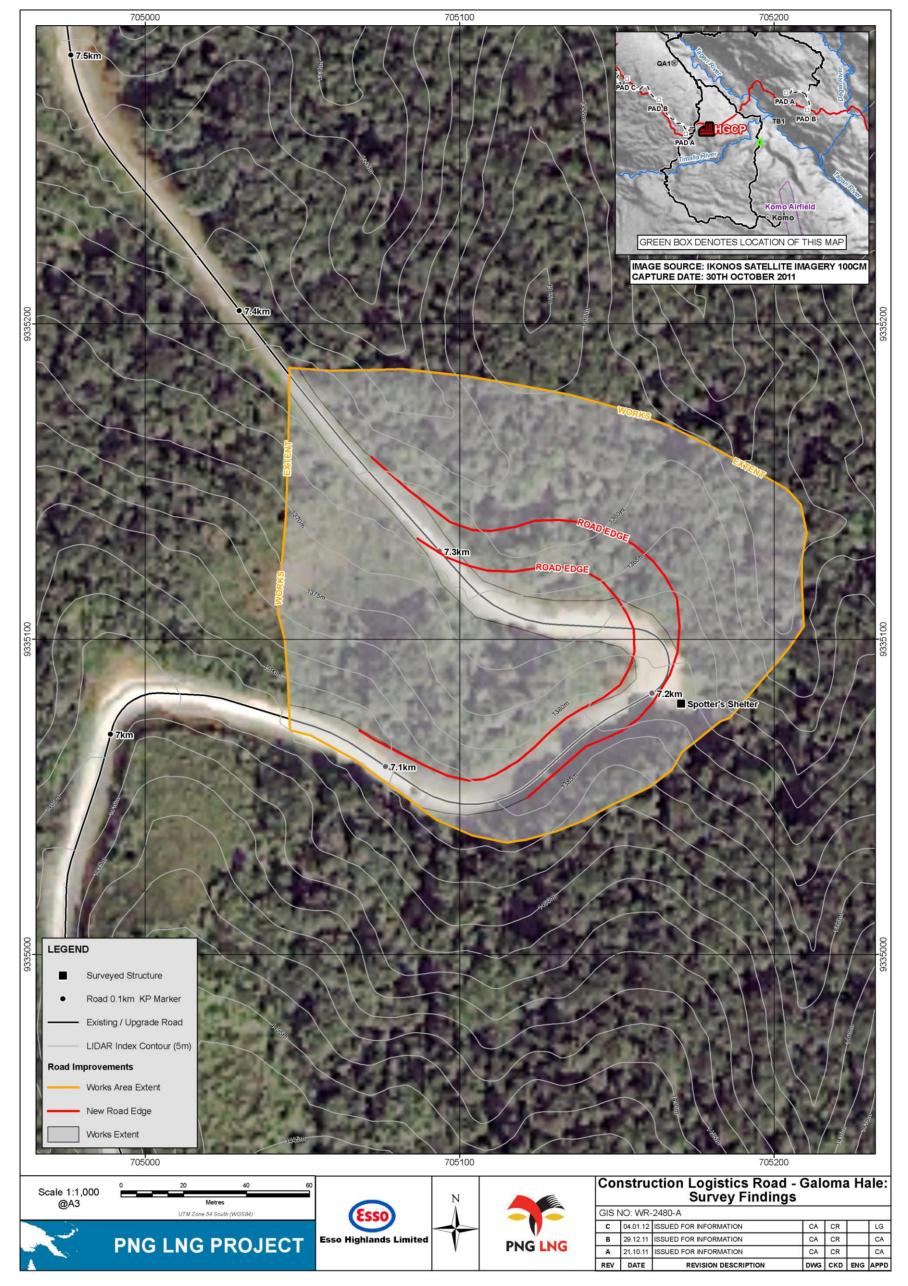


Figure 1-2: Logistics Road—Galoma Hale Land Requirements

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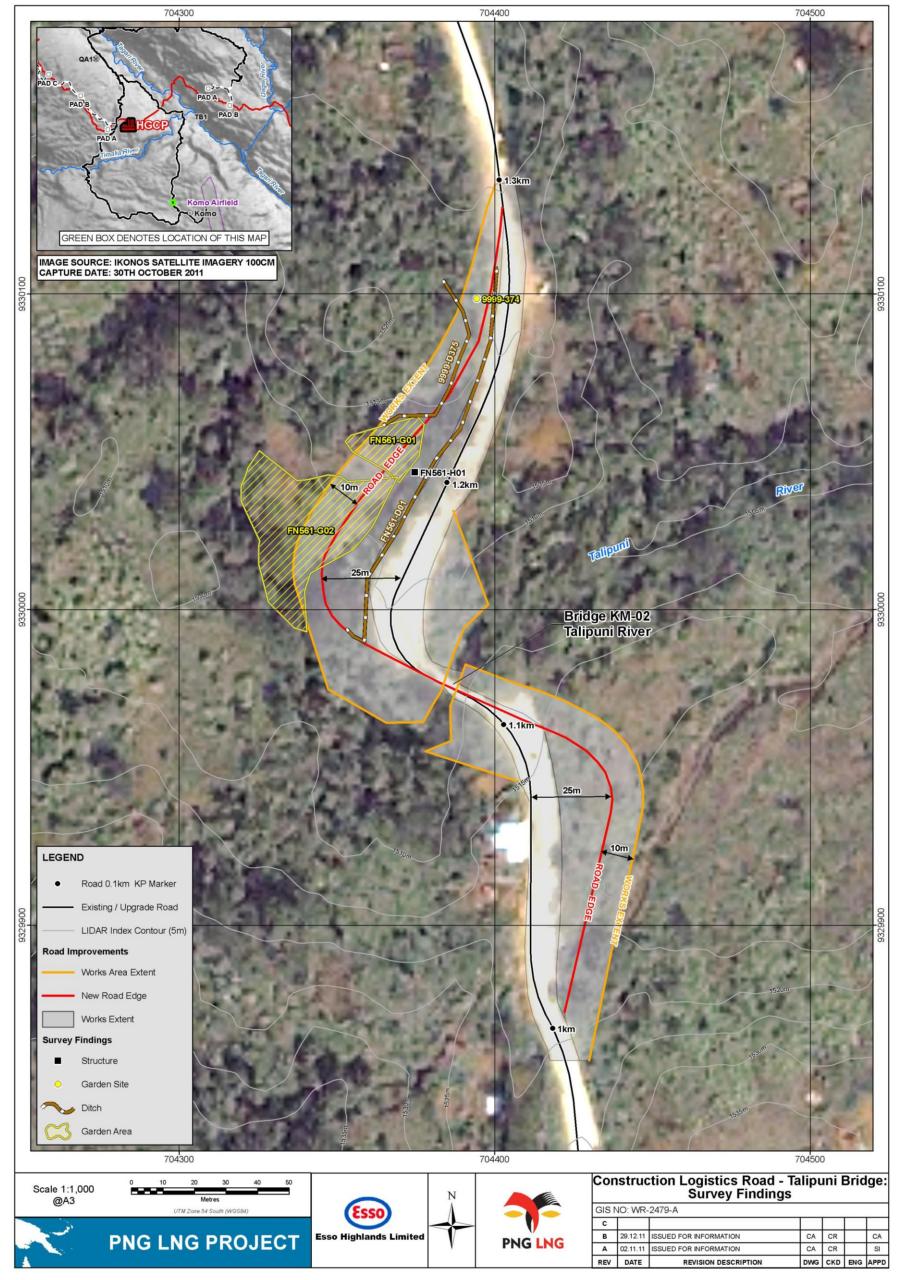


Figure 1-3: Logistics Road—Talibuni Bridge Land Requirements

The upgrade of Galoma Hale does not affect houses or gardens. The road is partly a 'state' road and a compensation agreement was signed with the Tabu clan landowners on the 19 January 2012. The Talibuni Bridge upgrade will displace one homestead and two gardens belonging to that homestead (Figure 1-3). The total declared and impacted population is 8 persons (5 males and 3 females)¹.

This Logistics Road RAP outlines measures that will be undertaken to address impacts on individual and communal resources. The construction, logistics and labor activities will comply with the following social and environmental Project plans and protocols:

- Camp Management Plan PGGP-EH-SPENV-000018-024;
- Community Health & Safety Management Plan PGGP-EH-SPENV-000018-021;
- Community Impacts Management Plan PGGP-EH-SPENV-000018-022;
- Community Infrastructure Management Plan PGGP-EH-SPENV-000018-027;
- Community Engagement Management Plan PGGP-EH-SPENV-000018-026;
- Labor and Worker Conditions Management Plan PGGP-EH-SPENV-000018-023;
- Air Emissions Management Plan PGGPO-EH-SPENV-000018-004; and
- Noise and Vibration Management Plan PGGP-EH-SPENV-000018-005.

1.1 **Resettlement Goal**

The Project's overall resettlement goal is to avoid resettlement where possible, but where unavoidable, to design and implement resettlement in a manner that improves, or at least restores, livelihoods and standards of living of physically and economically displaced persons. This Logistics Road RAP is consistent with goals, principles, and processes described in the Project's October 2009 Resettlement Policy Framework (RPF).

1.2 Sources of Information

Key sources of RAP information include the following:

Table 1-2: Key Compliance Documents and Information Sources

| Document | Reference | |
|---|---|--|
| PNG Oil and Gas Act | 1998/2001 | |
| PNG LNG Environmental and Social Management Plans | PGGP-EH-SPENV-000018 | |
| PNG LNG Company National Content Plan | PGGP-EH-BPZZZ-000013 | |
| PNG LNG Project Resettlement Policy Framework | PGGP-EH-SPENV-000018-030 | |
| PNG LNG Environmental Impact Statement | | |
| PNG LNG Social Impact Statement | | |
| International Finance Corporation's Performance Standards on Social & Environmental Sustainability – April 30, 2006 | Performance Standard 1 – Social and Environmental Assessment and Management Systems | |

¹ The single FN declared an intention to share all resettlement cash and rations with an associated family which had assisted them to build a house and for this reason they were included in the census and survey person count which produced a total of 14 family members.

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| Document | Reference |
|--|---|
| International Finance Corporation's Performance Standards on Social & Environmental Sustainability – April 30, 2006 | Performance Standard 5 – Land Acquisition and Involuntary Resettlement |
| International Finance Corporation's Performance Standards on Social & Environmental Sustainability – April 30, 2006 | Performance Standard 4 – Community Health, Safety and Security |
| International Finance Corporation's Performance Standards on Social & Environmental Sustainability – April 30, 2006 | Performance Standard 7 – Indigenous People |
| PNG – Full Scale Social Mapping & Landowner Identification studies PRL12 and PDL1 | Dr Laurence R Goldman (2008) |
| Company Best Practice in External Affairs | |
| Company Land Use Standard | |
| Company Operations Integrity Management Systems (element of Community Awareness on Property Rights and Resettlement) | |
| Pre-construction Reports | Coffey Natural Systems (2010) |
| Company Policy on Human Rights | |

This Logistics Road RAP is compliant with the Lenders Environmental and Social Requirements.

1.3 Site Selection and Avoiding/Minimizing Resettlement

The proposed eastern Logistics route was initially thought to be sub-optimal given the projected loads, known gradients, requisite earthworks, and likely interruption to existing traffic flows. For those reasons an alternative Heavy Haul Road (HHR) to the west was envisaged. This HHR route was continually re-designed to minimize resettlement impact from >260 to approximately 155 households, and appeared to be both cost effective with infrastructure benefits to the community.

Along Section 2 (Figure 1-4) of the original Heavy Haul Road (HHR) a resettlement program was initiated with affected landowners because project traffic travelling from Hides to Komo airfield had to traverse this area irrespective of any construction plans for the remainder of the HHR. An HHR RAP was initially developed late in 2010 which covered all affected households.

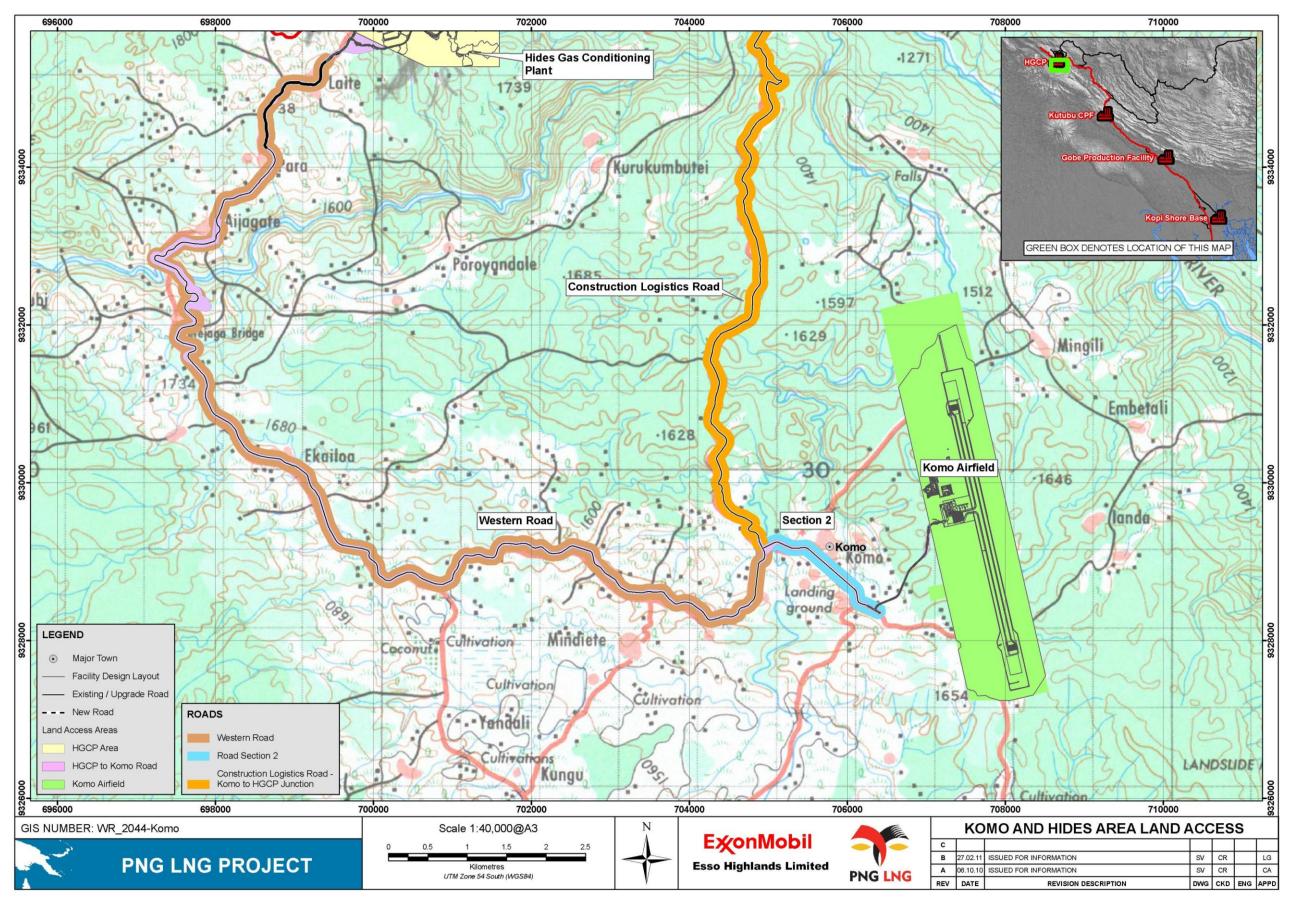


Figure 1-4: Original HHR and Logistics Route Environs

Towards mid 2011 the projected HHR route was reviewed again due to adverse engineering conditions along the road and bridges. The decision was taken to reconfigure the transport loads and revert back to use of the eastern logistics road. The immediate social significance of this decision reduced the physical relocation impact from 155 to <35 households.

The construction intervention consists essentially of upgrade activities to two sites along an existing road. Whilst impacts are inevitable, they are assessed as less than would otherwise be entailed by building the HHR.

2.0 SOCIAL, ECONOMIC AND CULTURAL ENVIRONMENT

2.1 Population and Clans

The linguo-cultural group, Huli (total population of some 150,000), inhabit the Logistics Road and surrounding environs. The proposed intervention is within PDL8 (formerly PRL 11) and is an area traditionally occupied by Dugube Huli clans. The site is south of the Dimalia River.

The affected locales were subject to several encompassing social mapping and landowner identification reports in 2001 for the PNG Gas Project and in 2008 for the PNG LNG Project. Figure 2-1 illustrates the clan-to-land disposition in the general Hides-Komo area and the recorded clans along sections of the proposed Logistics Road.

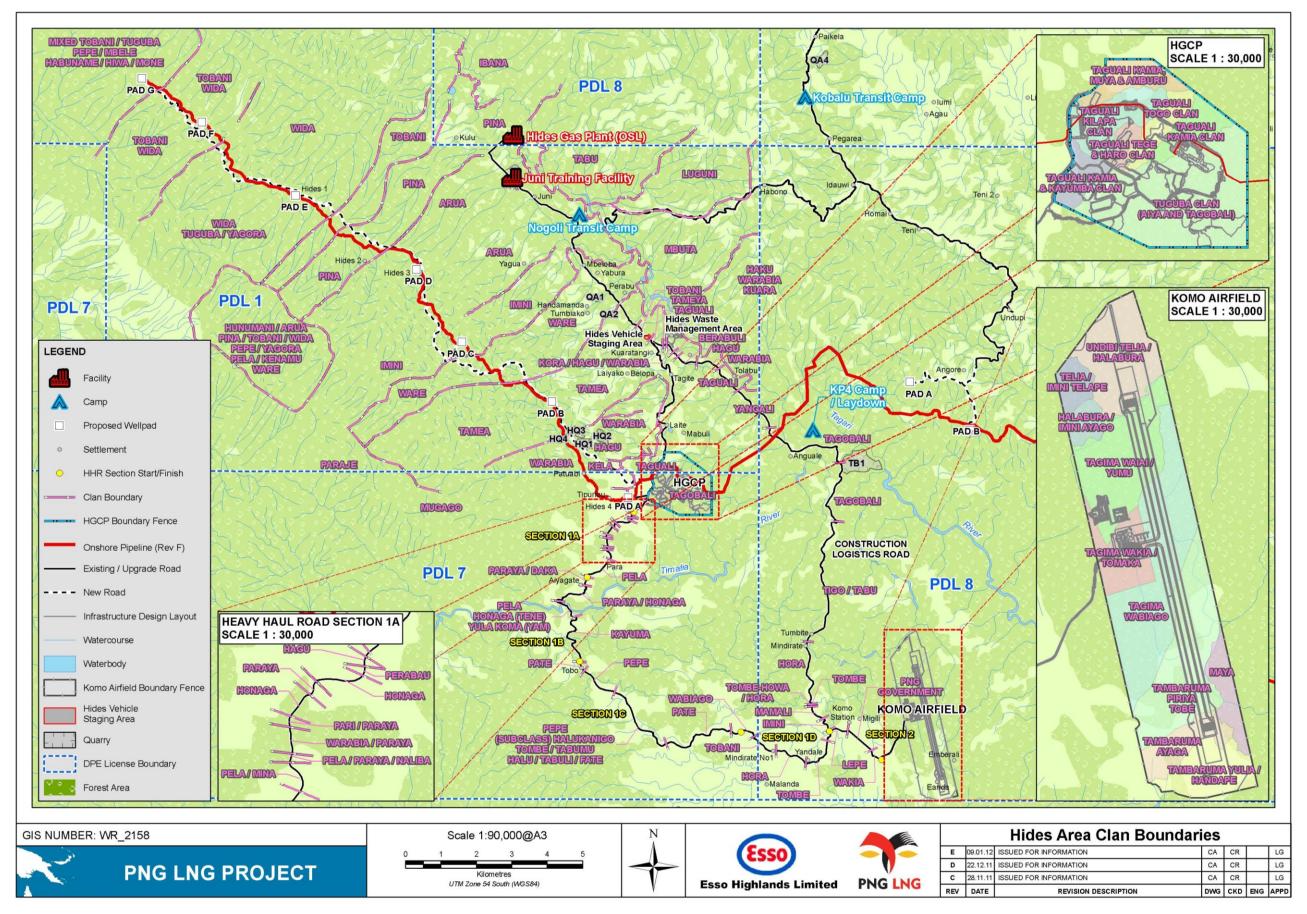


Figure 2-1: General Hides Clan Distribution and Locale of Logistics Road

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2.2 **Talibuni and Galoma Hale Clans**

Figure 2-2 is the hand-drawn map² from the PNG Gas Hides-Kutubu SMLI (Goldman 2001) and shows the clans inhabiting the area to the southwest of TB1 guarry.

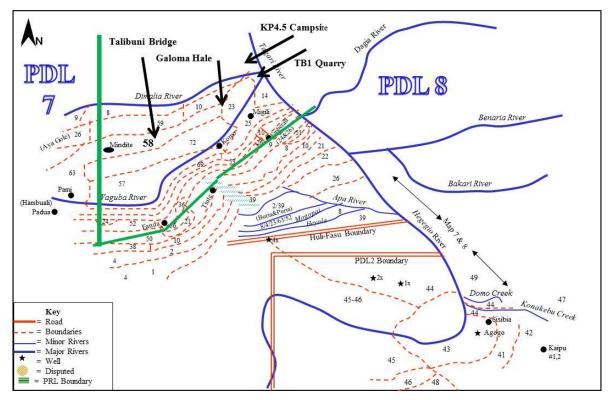


Figure 2-2: PDL8 (PRL11) SMLI Social Mapping Results (Goldman 2008)

The freehand map and table of clans provided in the SMLI 2008 represent an assessment of the primary landholding clans within the Dimalia River area and an understanding of their relative positions or dispositions on the ground between defined geographical points such as rivers, creeks and mountains. Within these identified parcels of land, it is not uncommon for individual land-holdings to be exercised by members from clans not necessarily listed or indeed from clans who have their locus elsewhere in the region³.

Table 2-1 provides a summary of the principal clans recorded for the Logistics Road (see Figure 2-1). The majority of the impacted Talibuni landowners are resident on Hora clan land. Some landowners claim that the Tapu/Tagobali clan boundary is at Galoma Hale Road section. The C&S/MCJV route survey identifications thus accord with the prior SMLI reports.

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² Only numbers are inserted on these maps which otherwise must be read in conjunction with a master clan list to ensure confidentiality of information.

³ Only 2 plates

Only a plot-by-plot distribution map would show up such land patterns and the extremely complex mosaic of holdings and portfolio of rights that constitute any given land parcel.

Table 2-1: Logistic Route Interventions Clan List

| Locations | SMLI (Figure 2-2) Map (Reference No) | SMLI Clan Name | C&S & MCJV Clan (Figure 2-1) Identifications |
|-----------------|--|----------------|--|
| Talibuni Bridge | 58 | Hora | Hora |
| | 59 | Hirabalu | |
| | 10 | Tobe | |
| | 72 | Tombe (Ani) | |
| Galoma Hale | 8 | Tagobali | |
| | 23 | Tabu | Tabu |

In response to social survey Question A4 – 'Have you moved here from somewhere else?" the physically impacted household responded 'yes'. The female household head had moved from a nearby location with her children following a family dispute during 2011 and was now resident on her father's (Hora clan) land. Her brother's son has assisted her with building her house and this other FN was included in the census and survey data collection, notwithstanding the fact this same family had a residence elsewhere.

2.3 Section 2 Logistics Road Clans

A detailed history of the Komo area is contained in the Komo Airstrip RAP. The Komo area has a history of relatively recent settlement by numerous fragmented groups and a past characterized by protracted conflict and out-migration. This situation is complicated by multiple layers of occupation by the original non-Huli-speaking clans (collectively referred to as Dugube), by fragments of varying sizes of Huli refugee clans from the north, and by further movements caused by subsequent fighting within the Komo area.

The Dugube clans in general tend to be much smaller than Huli clans, which is why we find a higher percentage of non-agnatic cognates in their membership. For this reason the land areas along the logistics route present as a mosaic of clan names from around Huli. Even though family units from these multiple clans may acknowledge the tenurial precedence of one of the major clans they nevertheless insist on being separately audited for purposes of resettlement compensation. In effect, the census team sometimes listed more than eight clan names for any one FN household.

Table 2-2 below provides a summary of the principal physical resettlement clans recorded for Section 2 with a comparison against the PRL12 Social Mapping & Landowner Identification study (Goldman 2008), the ANUE census and Coffey cultural heritage research.

Table 2-2: Section 2 Logistics Route Principal Clan Listing

| ANUE Land Survey | Cultural Heritage Survey | Goldman-SMLI 2008- Main Clans | ANUE Land Survey | Cultural Heritage Survey | Goldman- SMLI 2008 - Main Clans |
|------------------------|--------------------------------|-------------------------------------|---------------------|--------------------------------|---------------------------------------|
| Bebe | | Bebe | Taguali | Taguali | Taguali |
| Hora | | Hora | Tambaruma | | Tambaruma |
| Imini | | lmini | Tombe | | Tombe |
| Bagada | | | Dagima | Dagima | Dagima |
| Tobe | Tobe | Tobe | | | |

Thirty per cent of affected residents identified themselves as from Imini clan and 15% from Tambaruma clan.

In response to social survey Question A4 – 'Have you moved here from somewhere else?" 37% of those physically impacted households who responded said 'yes'. Most had moved from the Komo and Mananda environs during the last ten years, and declared reasons included tribal fighting and business opportunities. Of those respondents who provided the kinship link to their land tenure rights, 57% declared they were related through a patrilateral (i.e., father) tie, 36% were using land provided by their mother, and 7% were resident on affinal (i.e., wife or husband) land.

2.2 Demographics and Household Profile of Directly Affected Population

In the Talibuni area the census and survey team recorded one bush-material structure belonging to the one physically impacted family (FN). Figure 1-3 shows the location of impacted house and gardens in the proposed Talibuni Bridge area of the Logistics Road.

A total of eight household members were listed in the social survey for the one FN and 14 for the combined family yielding an average of eight persons per household (or seven for the two combined families). Sixty-four per cent of household members were absent at the time of the survey. The 14 FN members were constituted as male (64%) and female (36%).

Section 2 of the logistics road contains 30 affected FN households. Figure 2-3 shows the location of impacted houses and gardens in Section 2.

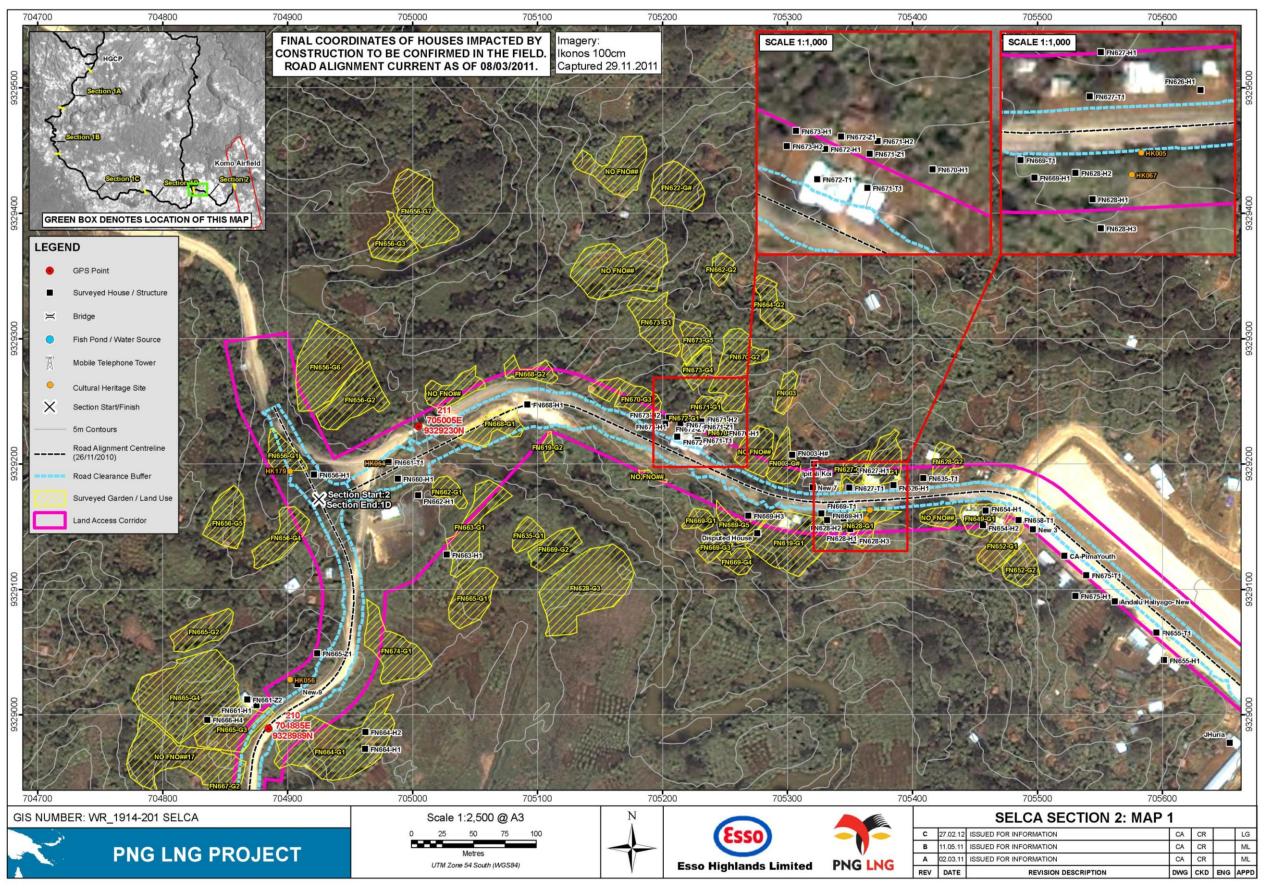


Figure 2-3: Section 2 Logistics Road Houses & Gardens

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A total of 464 household members were listed in the social survey for Section 2. Fifty-five per cent of household members were absent at the time of the survey; the members were constituted as male (54%) and female (46%). Table 2-3 contains the age breakdown of residents within the logistics road.

Table 2-3: Age Breakdown of Logistics Road Household Residents

| Ago Bongo | Tal | ibuni | Section 2 | | |
|-----------|-------|------------|-----------|------------|--|
| Age Range | Total | % of Total | Total | % of Total | |
| 0-5 | 4 | 28.6 | 74 | 16.5 | |
| 6-14 | 4 | 28.6 | 94 | 20.9 | |
| 15-19 | 2 | 14.3 | 42 | 9.4 | |
| 20-55 | 3 | 21.4 | 213 | 47.4 | |
| 56+ | 1 | 7.1 | 26 | 5.8 | |
| Total | 14 | 100 | 449 | 100 | |

Seventy-one per cent of Talibuni and 57% of Section 2 members had never married which is broadly consistent with results obtained for the Spineline (63%), HHR (59%), HGCP (56%), Komo Airstrip (60%) and the more general Hides catchment (55%) noted in the EIS SIA (2009).

2.4 **Social Infrastructure**

Figure 2-4 illustrates the distribution of social infrastructure in the area. The Logistics Road developments will not disturb present social infrastructure.

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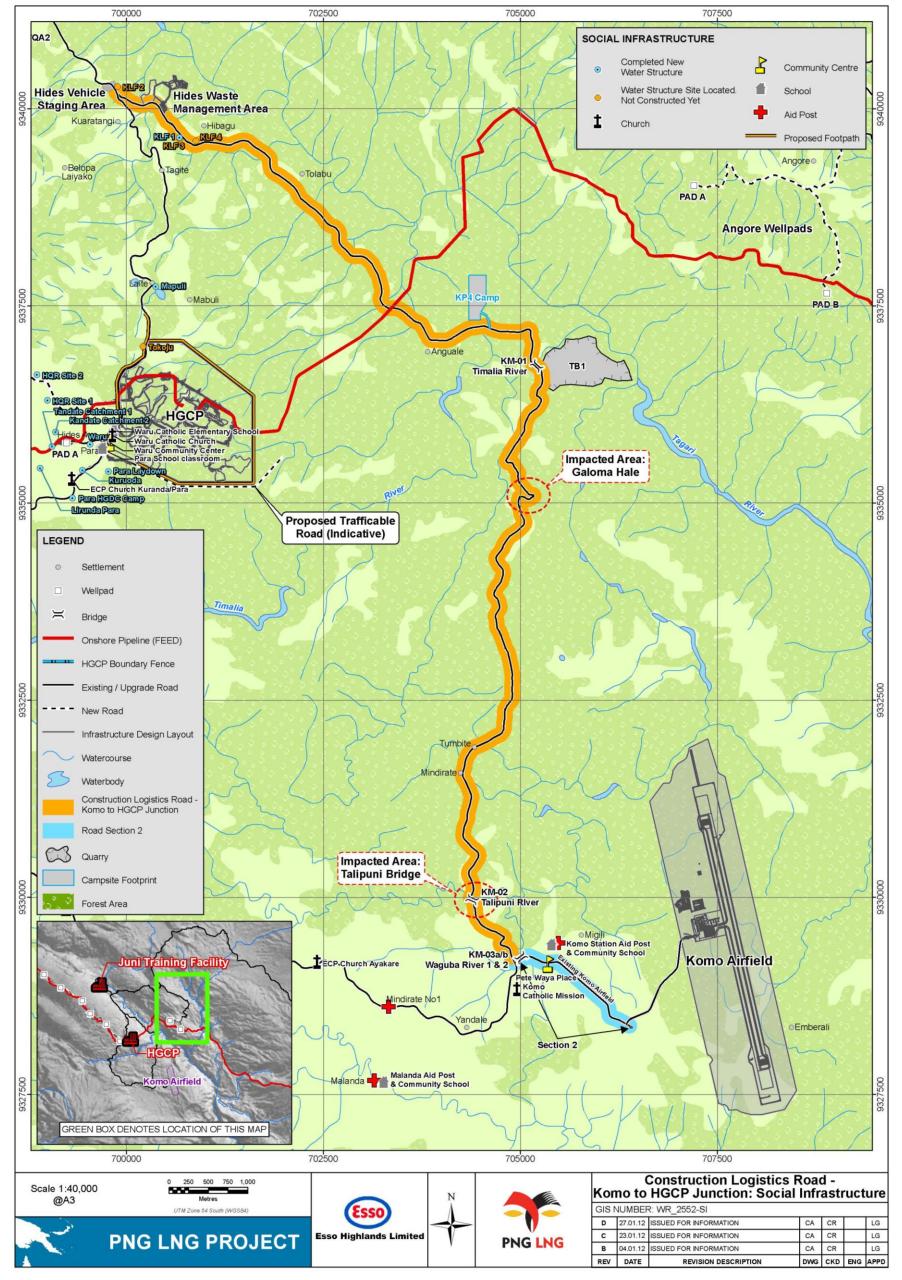


Figure 2-4: Social Infrastructure in the Logistics Road Area



Plate 1: Talibuni Bridge



Plate 2: Approach to Talibuni Bridge

2.3.1 Water and Sanitation

Forty-six per cent of the Section 2 respondent households had their own water tank, with five interviewees stating they had access to communal water tanks. The other survey respondents indicated they sourced their water from local springs or rivers. Average time to collect and return with water was 18 minutes for Section 2 households with a range of 1-40 minutes, and for Talibuni people 41 minutes with a range of 5–90 minutes.

An average 31% of those who responded to the enquiry reported that water was available all year round. Access to water with continued and uninterrupted supply were not issues generally raised by affected landowners in the open survey questions about resettlement concerns in either the Section 2 or Talibuni areas.

Table 2-4 indicates that reliance on pit latrines was at levels comparable and consistent with those recorded for most Komo catchments where an averaged 75% of respondents reported using traditional pit latrines. Conversely, reliance only on 'bush' facilities was at less than 5%.

Table 2-4: Traditional Pit Latrine and Bush Usage at HQ1-3, TB1, Spoil Dump, Logistics Road, **HGCP & Komo Airstrip and Catchment**

| Ablution Type | Komo Catchment | Komo Airstrip | HGCP | HQ1-3 | Spoil Dump | Logistics Road |
|-------------------------|-------------------|------------------|-------|-------|---------------|-------------------|
| Bush | 13.6% | 8.7% | 5.3% | 66.7% | 75.0% | 3.6% |
| Traditional Pit Latrine | 73.6% | 91.3% | 91.2% | 33.3% | 25.0% | 78.6% |

2.3.2 Sources of Energy

One hundred per cent of the Logistics Road households rely on firewood for fuel and this is typical for this rural environment.

2.3.3 Communications

The resettlement survey found that 68% of Section 2 residents had mobile phones. Digicel towers are located just to the north of HGCP and west of the Komo Mandi Catholic Mission.

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2.4 Structures

2.4.1 Types of House: Materials Used, Sizes, etc.

The extended Talibuni household recorded seven structures, all built of bush materials—split timber slabs with a kunai (*imperata* grass) thatch roof.

The 30 affected FNs in Section 2 (see Figure 1-4) reported 27 structures, of which 48% were 'bush', 40% 'semi-permanent' and 12% 'permanent' material constructions.

2.5 Land Tenure and Land Use

2.5.1 Garden Census

The agricultural survey counted more than 23 gardens zones in the nine hectares planted with sweet potato and other crops. Figure 1-4 and Figure 2-5 illustrate the affected gardens along Section 2.

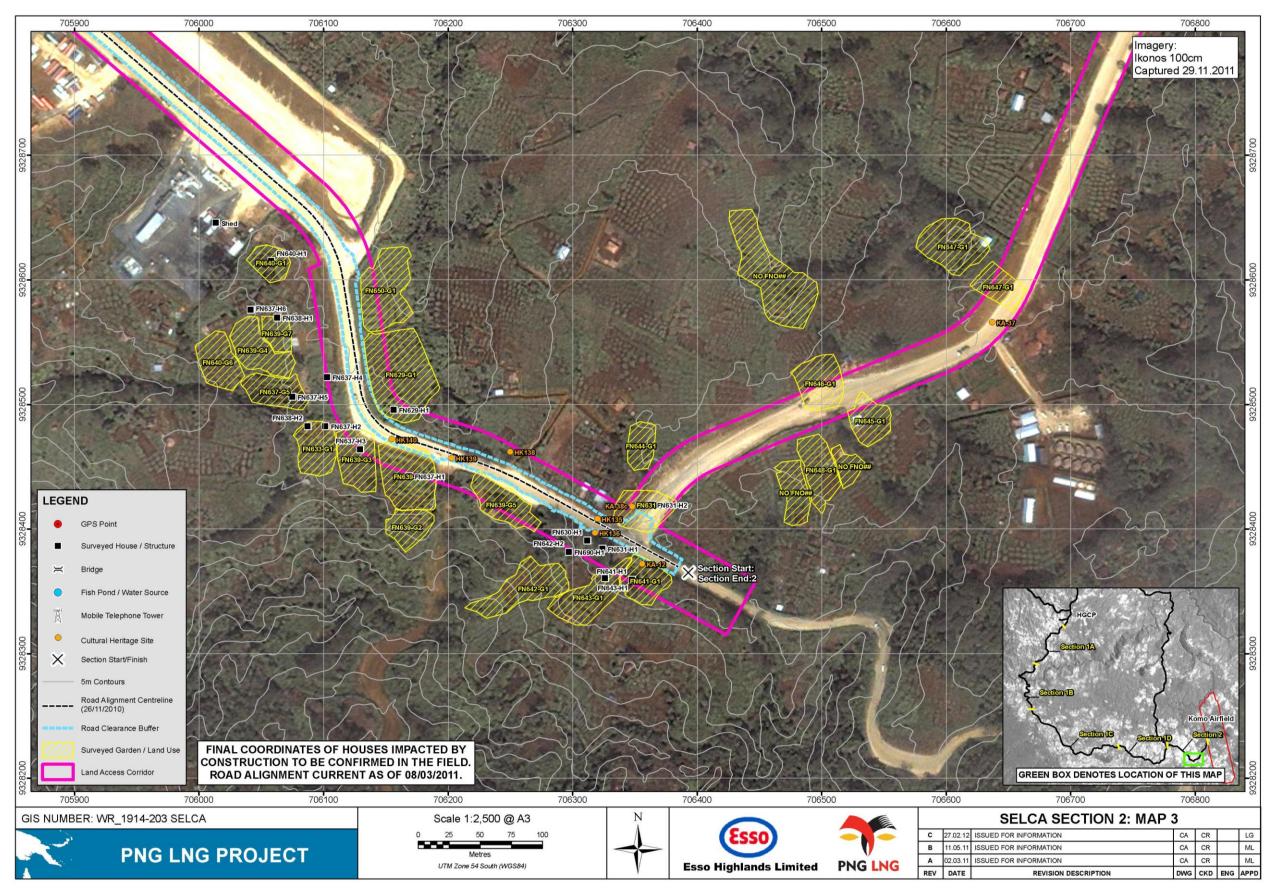


Figure 2-5: Location of Gardens along Section 2

2.5.2 Field crops, trees and economic trees

The agricultural survey counted avocado plants, fig, pandanus, marita, and lemon trees. There are no significant differences in agricultural practices between logistics road, Obai, HQ1–3, Komo and HGCP.

A large number of useful trees are planted around gardens and when gardens are fallowed these trees make up an important component of the fallow vegetation. By far the most important economic tree is Casuarina (*bauwa*). Castonopsis (*bai*), a timber tree which also produces edible nuts, is the next most important economic tree. A total of PGK121,105 has been paid for loss of agricultural crops to impacted Section 2 FNs.

2.5.3 Livestock

Average livestock per household levels have shown similar spikes over the regional mean for all the resettlement impacted catchments. Figure 2-6 below illustrates for Section 2 levels of pig ownership above other resettlement impacted areas but this is accounted for by one household only which reported some four times the average 6–8 pigs *per household*.

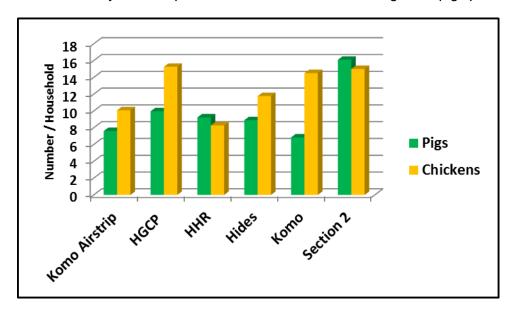


Figure 2-6: Comparative Livestock Holdings per Household Across Region

The Project has committed to applying FRV rates for all gardens and trees including those that are around the present house and which are currently being assessed.

2.6 Cultural Heritage Sites

No cultural heritage sites were reported or recorded for the two construction areas of Talibuni and Galoma Hale.

Preliminary cultural heritage interviews were conducted along the proposed HHR in April 2008 which covered Section 2 (A Kuaso, J Sepe & S Jones), followed in Nov–Dec 2008 by an aerial reconnaissance and ground cultural heritage survey (J Dop, J Sepe & T Kokents). A pre-construction cultural heritage survey was also undertaken along the previous HHR in June 2009 by Coffey Natural Systems (J Sepe, J Mangi, J Pilgne & R Bone).

This last survey considered a 50 m buffer either side of a road centerline vector and detailed 123 sites consisting of burials, dancing grounds, archaeological and ceremonial sites within the survey area.

There was only one cultural heritage site of high local significance, HK064 (see Figure 2-7), which is located within 250 m of the HGCP to Komo Airport road worksite and which has been designated as 'not to be disturbed'. The site is outside the logistics road area.

Table 2-5: Cultural and Archaeological Sites in the Logistics Road Area

| SITE No | Description | Recommendation | | | |
|------------------------|------------------|---|--|--|--|
| Komo Access Road Sites | | | | | |
| HK135-136 | Cemetery / Grave | | | | |
| HK 138-140 | Burial site | | | | |
| HK 054 | Burial site | | | | |
| HK075 | Burial site | Avoid where necessary but If site is disturbed then | | | |
| HK005 | Burial site | assist with reburial and relocation and/or negotiated compensation. | | | |
| HK067 | Burial site | ' | | | |
| KA 38c | Dance Ground | | | | |
| KA12b | Heritage Site | | | | |

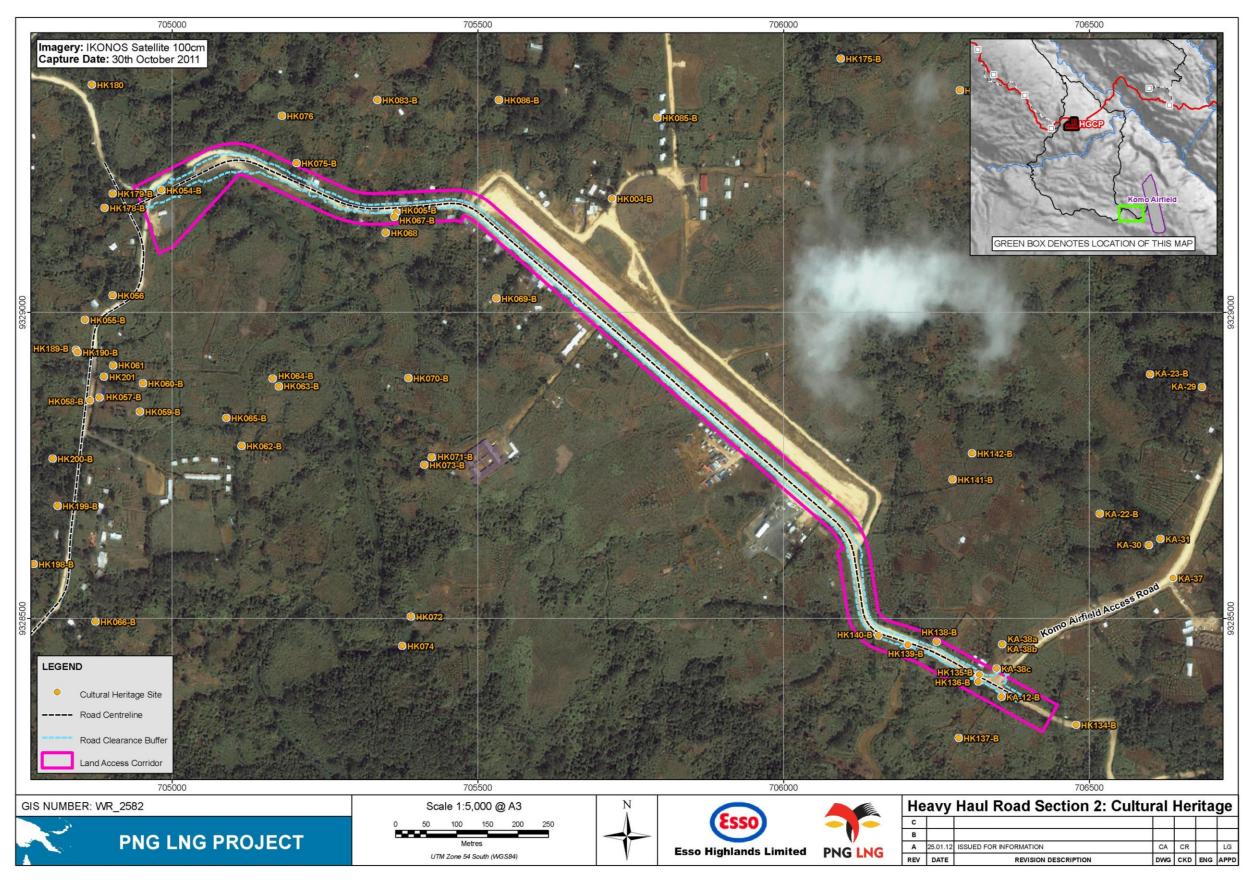


Figure 2.7: Cultural Heritage Sites – Logistics Road Section 2

The Project's cultural heritage programs and protocols address archaeological evidence and secondary burials and ensure that, where appropriate, relocation of ritual items occurs in accordance with Huli custom.

2.7 Vulnerable Households

The Project will assist elderly, young, landless, infirm and disabled people affected by involuntary resettlement to appropriately meet their needs during the physical relocation process and reestablishment of houses and gardens.

The female household head of the physically-impacted family at Talibuni has been designated as 'vulnerable' and will be provided with special assistance in respect to the relocation process. Other potential vulnerable persons who will be closely monitored include:

Three children, 5 years and under.

For Section 2, of the 26 people over 55 years of age, 22 were over 60 (14 male, 8 female). There were no pregnant or disabled people recorded. The Vulnerable Assessment Team Coordinator maintains a list of vulnerable households and individuals across all resettlement sites, which is used for ongoing monitoring of these households' progress during and post resettlement.

2.8 Resettlement Sites

The resettlement social survey and census solicits responses from affected landowners in respect to the relocation process and their preferred and prospective resettlement site. To the survey Question A9—"Do you or your family have another residence outside Talibuni?" the affected household responded in the negative. To the survey Question I10—"What is your relationship to this [relocation] land?" the respondents said they would relocate to their father's (Hora) clan land. In respect to Section 2, 47% of those who responded to survey question A9 said they had another alternative residence. All impacted Section 2 households have since successfully relocated.

In response to Question I11—"How far is it [preferred relocation site] from your current house?" the Talibuni respondents indicated a travel time of between 1–3 hours from their current locale. The nominated relocation locale was Hora clan land so that in effect the same security of tenure conditions should prevail post-resettlement as prevailed pre-resettlement. The physically affected family has land but no house or gardens in the proposed relocation site.

2.9 Project Knowledge and Attitude to Relocation

The resettlement family/house social survey recorded the subjective comments from Logistics Road affected landowners concerning their attitudes to resettlement.

In response to Question I4—"Are there any aspects of this Resettlement Action Plan that you do not agree with?" the principal concerns of Talibuni residents were all related to resettlement processes. They felt payment given after dismantling of the house was counterproductive and reiterated the need for more diligent counting of crops and trees; complaints were also aired that the RAP disclosure had been too public and had caused disputes amongst land claimants.

Along the Section 2 road, landowners' principal concerns were about the rate of deprivation compensation that would be forthcoming (22%) and the burden on relocatees to find alternative land resources (11%). Other issues raised included crop replacement values and general resettlement processes.

In response to the Question I5-"Are you willing to self-relocate?" all affected Talibuni householders responded 'yes'. Notwithstanding this willingness to move, the landowners were all 'unsure' that resettlement would improve the conditions of their lives. The principal concern was that the Project would not be providing relocation land.

At the time of the initial social questionnaire, 59% of Section 2 households had indicated they did not want to relocate, 24% were willing, and 17% remained unsure (Figure 2-8).

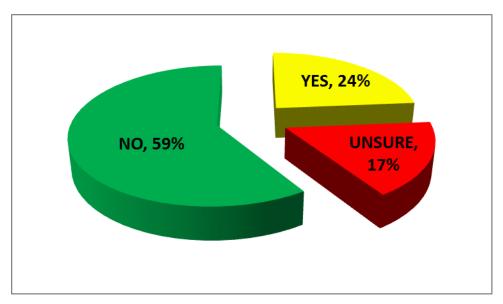


Figure 2-8: Section 2 Logistics Road Landowners' Willingness to Relocate

In response to the Question I7, 'Do you think your life will be better after the relocation?' 100% of Talibuni respondents expressed reservations compared with 70% of Section 2 landowners. Consistent with the higher number of people in Section 2 who did not want to relocate (Figure 2-8), some 24% of people thought their life would not improve after relocation. Whether this pessimism is warranted will no doubt be gauged from the postrelocation monitoring and audit surveys. This diffidence and negativity is expected in the early phase of the resettlement process and not atypical in the experience of resettlement research analysts.

In answers to Question 18, 'Do you think there will be any benefits from the relocation?' all Talibuni residents identified cash compensation streams as the single most important benefit. By contrast the Section 2 road respondents identified both a greater variety of, and more even spread between, various cash and non-cash benefit streams (Figure 2-9).

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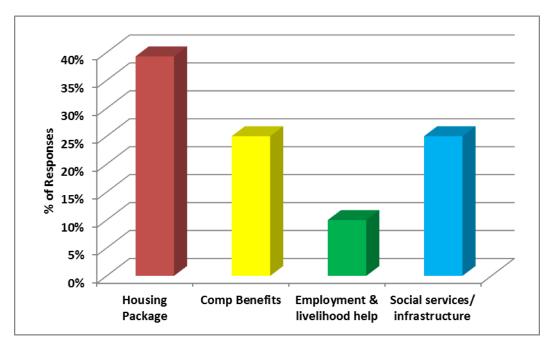


Figure 2-9: Perceived Benefit Streams of Section 2 Road Landowners

Other issues raised by the Section 2 affected landowners were captured in the open survey Question I13 'Is there anything else you would like to say?' There were few differences in these responses from those captured from other resettlement areas. Repeated concerns raised by Talibuni people included, but were not limited to, the following:

- Need for pre-dismantling payments to assist with re-establishment costs.
- Need for immediate cash with no deferred payments.
- Need for RIT to maintain daily presence during the resettlement process.

By contrast the Section 2 road respondents emphasised their expectations that the Project will provide (a) relocation land (50%); replacement houses (23%); employment (7%); school fees (7%) and training programs (7%).

3.0 **CONSULTATION AND DISCLOSURE**

3.1 Stakeholder Engagement

Α 11 November 2011(public disclosure meeting was held on

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Table 3-1) at Talibuni Bridge. The Environmental Law Centre (ELC) played an active monitoring and review role as an impartial observer. Representatives of Hora and Tombe clans were present during the public disclosure meetings.

Table 3-1: Logistics Road Public Disclosure Meetings Log

| Resettlement Awareness | | | | | | | |
|--------------------------------------|-------------------------------------|-------------------------------|---------------------|--------|----------|-------|--|
| Village | Date | Awareness Team* | Number of Attendees | | | | |
| | | | Male | Female | Children | Total | |
| Logistics Road Section 2 - Yarima | 19 th May 2010 | ELC & RIT | 53 | 16 | 11 | 80 | |
| Logistics Road – Waguba Bridge | 1 st October 2010 | ELC & RIT | 33 | 35 | 15 | 83 | |
| Impacted FNs | Feb-June 2011 | ELC | - | - | - | 20 | |
| Talibuni bridge | 21 October 2011 11 November 2011 | RIT, L&CA, MCJV Eng. & ELC | 52 | 12 | 10 | 72 | |
| Impacted FN - Household | 16/17/18 November 2011 | ELC & RIT | - | - | - | 1 | |

Table 3-2 presents a summary of the landowner concerns.

Table 3-2: Summary of Talibuni Public Consultation

| Question/Issue | Answer | Subject Category | Follow-up Required | Recommended Action |
|---|--|---|--|--------------------|
| Logistic Road | | | - | |
| Are you going to just fix the bridge or will some land be affected. | MCJV Engineer explained that given the angle at which the bridge is approached from either side there is stress on side lands. Land on either side of the bridge will be cleared and the road widened giving ample space and distance from the bridge for manoeuvrers. | Road plans | Engineers will peg the 25m alignment from the centre of the road that will be affected | None |
| My immediate family is the only household that will be affected, so when will I be consulted. | RIT and ELC officers will come to you very soon. There will be household consultation and negotiations leading to agreement signings. | Resettlement process | RIT to action household agreements | RIT and ELC |
| Like everything else the Company is not "longlong" (mad), the government knows what it is doing. The company has a plan and that is what we now agree to. You remain within that plan but if you get outside of those boundaries we must be compensated fairly. It is the same as going to the hardware to buy material, every size | The final road alignment will be done in a few days when the engineers will peg out the required land surface. When that happens the various compensation components will be divided between the different teams who will deal with the packages. The environment and land matters will be | Land damage and access Compensation | None | None |

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| Question/Issue | Answer | Subject | Follow-up | Recommended |
|--|--|---------------|-----------|--------------|
| of noil book different | L QCAla reconcibility | Category | Required | Action |
| of nail has a different price. Just like the | L&CA's responsibility while the resettlement | | | |
| different sizes of bush | team will ensure that the | | | |
| strings and tree material | affected household will | | | |
| in the bush that we use | be resettled in | | | |
| have their own different | accordance with the | | | |
| value. Remember if you | resettlement plan. Any | | | |
| jump the barrett that is | damages will be fairly | | | |
| private property but since | compensated. | | | |
| you already explained the | , | | | |
| process we understand | | | | |
| and will be expecting that | | | | |
| you will not go outside the | | | | |
| boundary we will agree | | | | |
| to. | | | | |
| The LBSA & UBSA were | We are resettlement and | Scope of work | Inform | Engineers to |
| negotiated by MPs and | we only have a rough | | engineers | assist |
| we have little knowledge | idea. You will see the | | | |
| about it but right here and | boundaries when the | | | |
| now we want you to tell us where the road | engineers start to peg | | | |
| extension will go? | out the place. | | | |
| I want both sides of the | Because we are not | Scope of work | None | None |
| road to be cleared so why | considering building a | Ocope of work | INOTIC | None |
| clear only one side of the | new bridge. The | | | |
| road? | engineers are looking at | | | |
| 1000 | how to fix the road so | | | |
| | that long trucks avoid | | | |
| | hitting the existing | | | |
| | bridge when they turn. | | | |
| | And that is something | | | |
| | we cannot tell the | | | |
| | engineers to do. We | | | |
| | can't just move people | | | |
| | and clear land as we | | | |
| | wish. You are not going | | | |
| | to be affected and we | | | |
| | want to minimise | | | |
| | impacts on people as | | | |
| | much as possible. | | | |

A public disclosure meeting was conducted on the 18th January 2012 for the Galoma Hale landowners from Tabu clan. No issues were raised and all leaders signed a Compensation Agreement with a commitment to avoid building any speculative houses.

For the Logistics Road Section 2 area, a public consultation was held on the 1 October 2010 at Waguba bridge (Table 3-3). Many of the affected households would also have attended the various meetings at Komo Airfield and along the originally proposed HHR road during May 2010.

Table 3-3: Summary of Waguba Bridge Public Consultation

| Question/Issue | Answer | Subject Category | Follow-up Required | Recommended Action |
|--|---|---|----------------------------------|---|
| Logistic Road | | | • | |
| As a councillor representing the people I am pleased to see the road going ahead. Land is a major issue for the Imini clan which has now 6 sizeable sub-clans. The question of availability of land is already an issue; Komo Station is on Imini land, land has been taken up by the airfield and now more land will be taken up by the road. He asked if ExxonMobil could purchase land on which to resettle the displaced households? | The team responded by clarifying that the project policy was not to purchase/rent land and give to relocatees because the project could not guarantee security of tenure. Assistance for real cases of land shortage will be looked at on a case-by-case basis. | Land Availability and acquisition | Report to livelihood restoration | Monitoring by LR of any land shortage |
| Concern at failure of ExxonMobil to provide support to the District's health services and to income earning activities. He expressed a wish to see a comprehensive effort to get people to supply vegetables to the various companies operating in the Komo and Hides areas. He asked why RIT hadn't set up nurseries to distribute seedlings of cabbage, carrot, tomato, coffee, etc. He noted that some community developers came from Port Moresby, asked some questions and were not heard from again. He asked that RIT abandon the distribution of rations and provide the people with cash. | RIT had a component called Livelihood Restoration who were advising the resettled households on establishing new gardens. He explained that RIT needed to ensure that resettled families has sufficient food and the only way to do so was to provide food since money could be diverted to other purposes. The livelihood restoration team will be implementing nurseries throughout the region. | Livelihoods and rations | Refer to LR | LR to ensure community engagement on plans |
| Trade-store owners know the profits the store generates, households know the improvements on their land and the economic trees and plants such as bamboo. All of these people have to be compensated to the | RIT would visit individuals to discuss Household Resettlement Packages and loss of business compensation. | Compensation | None | RIT to address |

| Question/Issue | Answer | Subject Category | Follow-up Required | Recommended Action |
|---|--|---------------------|-----------------------|--------------------|
| full value of their assets. Now they are effectively 'millionaires' and can sustain their lives; when the project displaces them and they lose their land they will have serious problems. | | | | |
| This old man and his wife regretted the loss of the airfield and expressed their hope that any payments would be made before they both passed on. | RIT will expedite the payments as fast as possible. | Compensation timing | None | None |
| I disagree that we be given money instead of rations. I request RIT to continue rations and backdate to the date people were told not to plant gardens | We assured the group that rations would be continued for the designated period and advised that families were not told to stop gardening but simply to plant new gardens outside the road alignment. | Rations | None | None |



Plate 3: Disclosure at Galoma Hale 18/1/2012



Plate 4: Disclosure at Waguba 1/10/2010

3.2 Consultation and Disclosure Methods

Verbal information (during community meetings and household meetings) on the proposed Logistics Road intervention was supported by various materials concerning the resettlement process:

- "Resettlement Information Booklet for the PNG LNG Project" (written in English, Huli and Pidgin); and
- Flipcharts and A0 vinyl sheets to support verbal presentations during public meetings.

After the first community and consultation meeting the Logistics Road household was consulted to establish awareness and understanding of the resettlement process by RIT & ELC.

Survey results to assess feedback on the public disclosure are summarized in Table 3-4.

Table 3-4: Awareness of the Logistics Road RAP Consultation Process

| Question No. | Question Posed | Yes | No | Unsure |
|-----------------|--|------|-----|--------|
| Talibuni I1 | Did you attend the road-show presentations of the RAP? | 100% | 0% | 0% |
| Section 2 I1 | Did you attend the road-show presentations of the RAP? | 82% | 18% | 0% |
| Talibuni I2 | Do you think you understand the Resettlement Action Plan? | 75% | 0% | 25% |
| Section 2 | Do you think you understand the Resettlement Action Plan? | 59% | 24% | 18% |
| Talibuni I3 | Would you like the Project to explain the Resettlement Action Plan to you again? | 75% | 25% | 0% |
| Section 2 | Would you like the Project to explain the Resettlement Action Plan to you again? | 82% | 12% | 6% |

Attendance at all disclosure events was good. The expressed reservation about understanding the RAP process and the request for a repeat disclosure by Section 2 attendees is consistent with the higher than usual 'negativity' to resettlement captured in their responses to survey question I5 (see Figure 2-8 above).

In response to the open ended survey Question I6—"What problems do you think relocation will present to you and your family?" we note the continued concerns amongst Talibuni residents about provision of replacement houses and lack of adequate time to build, shortage of building and subsistence resources, and perceived shortages of land. Figure 3-1 illustrates the concerns raised by Section 2 road residents. Much was also echoed in responses above to question I13, residents were anxious about shortage of land, provision of adequate housing and both adequate and fair business compensation for loss of income.

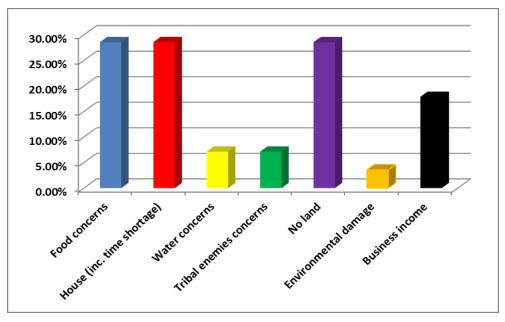


Figure 3-1: Concerns Raised by Logistics Road Section 2 Landowners

4.0 PROJECT IMPACTS

4.1 Introduction

Table 4-1 summarizes potential impacts and mitigation measures.

Table 4-1: Summary of Impacts and Mitigation Measures

| Impact | Locale | Scale | Mitigation - Project Responses |
|--|-----------|--|---|
| Resettlement impacts – | Talibuni | One household will be physically displaced and they own 1 house. | Package reflects agreed cash and inkind compensation provisions for affected landowners. Landowner acceptance evidenced and signalled by signed agreements, copy of which will be lodged with |
| households and structures | Section 2 | 18 economic and 12 physical resettlement impacted households with declared 27 structures | Department of Petroleum and Energy (DPE). |
| | Talibuni | Approximately 2.3 ha during construction (six months) but only 0.4 ha will be permanently damaged (road area) | The Company will pay the Landowning clans and individuals compensation at FRV. In compliance with Section 118(2) of the Oil and Gas Act, at equivalent market rates. Three forms of |
| Loss of access to land and natural resources (deprivation) | Section 2 | Approximately 9.21 ha | payments will be made: Compensation for the use and enjoyment of the surface of the land (annual payment at market rates). Compensation for land surface damage (one-off payment at market rates); and Compensation for initial damage to naturally-occurring bush, vegetation, birds, animals or fish (one-off payment at market rates). |
| | | 202 linear meters of | L&CA will deal on a case-by-case basis with any land access claims for areas outside state road borders. Individual landowners are entitled to one-off damage compensation |
| Loss of gardens, trees and crops | Talibuni | ditch; 0.17 ha of house and mixed garden affected; impacted garden crops include bananas (128), Chinese cabbage (605) and pitpit (400) for a total of 2044; 473 trees including coffee (130), marita (168), casuarina (79) and fig (68). | payments. Compensation at the equivalent of market rates will be paid for crop losses, and temporary rations are provided to households resettling to assist with subsistence requirements until gardens are re-established. A livelihood restoration program will be implemented to assist the affected household with restoring or improving livelihoods. |

| Impact | Locale | Scale | Mitigation - Project Responses |
|-----------------------------------|-----------|---|---|
| | Section 2 | Over 23 garden zones of sweet potato and mixed crops | >PGK123,000 paid out in compensation for agricultural damage |
| Disruption in | Talibuni | Disruption in social networks is expected to be minimal, as the affected household will | The household will self-relocate to an area in close proximity. Social networks with respect to |
| social networks | Section 2 | be moving to a site in close proximity to the Logistics Road and on the same clan land. | exchange relations will continue as these are based on kinship, descent, affinity and friendship ties not related per se to specific locales/areas. |
| | Talibuni | I female household head and 3 children under 5. | If households present as genuinely 'land challenged' or 'landless' they will qualify for special assistance. A dedicated Vulnerable Assessment Team has been established to |
| Vulnerable | | 22 individuals >60 present as potentially | monitor all potentially vulnerable households. |
| | Section 2 | vulnerable and will be monitored but no disabled persons recorded. | Special assistance will be provided, for example, with transit, or house construction. |
| Impacts on business and | Talibuni | None (Spotter's Shelter will be moved by the company to accommodate the new alignment) | |
| employment | Section 2 | 11 trade-stores impacted | Loss of business compensation already paid to trade-store owners to value of PGK337,700. |
| | Talibuni | No community | |
| Community services and facilities | Section 2 | infrastructure will be impacted by the development. | None |
| | | | Compensation schedules for range of cultural heritage sites. |
| | Talibuni | No cultural sites will be impacted. | Skeletal material to be handled by PNG National Museum. Appropriate rituals to be undertaken by local landowners and caretakers of sites. |
| Cultural Sites | Section 2 | 11 heritage sites of mostly burials and a ceremonial dance-ground | Chance-find sacred stones and artifacts to be relocated by people themselves. Other material to be lodged with National Museum and overseen by archaeologists as per mitigation measures outlined in the Logistics Road Pre-Construction Survey Report. |

| Impact | Locale | Scale | Mitigation - Project Responses | | |
|-------------------------------|--|---|---|--|--|
| | Talibuni There is no anticipated occupation of the Logistics Road site by migrants without local | | Squatter settlements will be difficult to establish in this area as most of the land is under customary ownership so that migrants without close relatives will find it hard to | | |
| Influx of migrants | Section 2 | migrants without local Huli sponsors. Small opportunist trade stalls will inevitably be established. There will be further house construction and relocation along the road boundaries by entitled landowners | maintain any subsistence livelihood. The Project is currently developing Project Induced In-Migration response plans using a community- based process. The outcomes of these activities will assist in developing an area specific plan for the Hides and Komo areas. It is anticipated that these plans will be implemented by early 2012. | | |
| Noise, dust traffic accidents | Talibuni, Section 2 | Increased noise, dust and traffic inevitable. | Will require more signage, public awareness of pedestrian behaviour, and traffic control measures. Dust and noise subject to project Environmental Management plans. | | |

4.2 Cumulative Impacts

The Logistics Road interventions are relatively contained and limited eventually to only 0.4 ha permanent damage. The gain for this loss will be a wider bridge approach and road section. Project resettlement experience to date suggests most affected landowners do self-relocate without undue and adverse impacts on their subsistence livelihoods or access to available land. All of the Section 2 households have been successfully relocated and there is only one further FN at the Talibuni bridge which will be subject to physical resettlement.

The direct impact of the Logistics Road intervention will be an increase in cash compensation to affected landowners from both the rental area and associated damage compensation. This means higher disposable incomes for subsistence, business enterprises and/or leisure activities. The reported use of funds from these cash interventions are captured in the Monitoring and Evaluation assessments (see Section 8.0).

4.3 Closure and rehabilitation

The road will be maintained for the duration of the project construction period and for as long as the Komo airstrip is used by operations. It will continue to be a public access route and the improvements will benefit the local population.

4.4 Eligibility and Entitlements

The RPF provides a full schedule of eligibility criteria for compensation and entitlements that will be adopted by the Project. Appendix 1 summarizes eligibility and entitlements relevant to Logistics Road communities for statutory damage and deprivation compensation. Damage and deprivation payments will have regard for the customary classification of landowners, landholders and land users with respect to their tenurial status and portfolio of land rights.

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5.0 LIVELIHOOD RESTORATION PROGRAM

A livelihoods restoration program will be implemented for affected Logistics Road families as detailed in the HGCP RAP (Section 8)⁴.

6.0 GRIEVANCE MANAGEMENT FRAMEWORK

The resettlement process for the Logistics Road landowners will consider grievances through the Grievance Procedure, which will apply across all Project activities. The Grievance Procedure is available to people affected by displacement, other local populations residing in the Project impact area, and other stakeholders directly affected by the Project.

The Grievance Procedure to be adopted for the Logistics Road is defined in the RPF. The Project will disclose information about the Grievance Procedure to the affected Logistics Road communities, interested persons and organizations. The transparency and fairness of the process will be explained through both verbal (via regular stakeholder meetings) and written updates (such as newsletters, website, and posters). A number of disclosures on the grievance procedure have been held with the communities in the general Logistics Road area.

7.0 ORGANIZATIONAL ROLES AND RESPONSIBILITIES

The Company is responsible for overall resettlement planning, implementation, and monitoring as per the RPF. It is implemented by the Land and Community Affairs Department. Overall organizational details are described in the HGCP RAP Section 10.

8.0 MONITORING AND EVALUATION

The Monitoring and Evaluation (M&E) system provides Project Management and directly affected persons, households and communities, with timely, concise, indicative information on whether compensation, resettlement and related development investments are on track and achieving Project goals. The Resettlement Team Coordinator (RTC), supported by the Field Implementation Coordinators, will coordinate M&E internal and external implementation.

Further details of the monitoring process to be implemented are contained in the HGCP RAP (Section 11).

9.0 RAP IMPLEMENTATION SCHEDULE

Table 9-1 sets out the tasks required in order to implement the Logistics Road resettlement program.

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⁴ Hides Gas Conditioning Plant Resettlement Action Plan, May 2010 (Revised November 2010).

Table 9-1: Logistics Road Resettlement Implementation Schedule for 2012-2014: Talibuni & **Galoma Hale**

| Activity or Task | Actions | | 2012 | | | | |
|--|---|---|------|---|---|---|-----|
| | | F | M | Α | M | J | J++ |
| Planning | Completion of RAP | | | | | | |
| | Internal EHL approval of the RAP | | | | | | |
| Approvals | RAP Submission to Lenders | | | | | | |
| | RAP Summary to community | | | | | | |
| Land Issues | Confirm resettlement sites & any impacted water sources (provision) | | | | | | |
| Confirm and | Final identification of vulnerable households | | | | | | |
| finalize compensation | Verify inventories of affected land and assets (incl. special valuations) | | | | | | |
| agreements | Finalize any entitlement contracts | | | | | | |
| Compensation | Cash payments to individuals & relocation | | | | | | |
| payments & relocation | Housing package, distribution materials or cash component/restitution | | | | | | |
| Graves, spiritual & other cultural sites | Relocate / recover (provision) | | | | | | |
| | Provide livelihood restoration program to affected families | | | | | | |
| Livelihood Restoration | Non-agric training and agribusiness programs | | | | | | |
| | Distribution of rations | | | | | | |
| | Design & implementation of monitoring and evaluation system (ending Feb 2014) | | | | | | |
| Verification and monitoring | Local advocacy & compensation advisors | | | | | | |
| . | Internal monitoring | | | | | | |
| | External evaluation (including completion audit) | | | | | | |

10.0 **COST AND BUDGET ESTIMATE**

All funds for the cost of the Logistics Road resettlement program have been made available by the Project, which is estimated to be US\$3 million.

11.0 APPENDIX 1: ELIGIBILITY AND ENTITLEMENTS—TALIBUNI & GALOMA HALE

| Eligibility | Affected Category | Assistance/Compensation | Considerations for Implementation | | | |
|--|--|--|---|--|--|--|
| 1. Houses and o | 1. Houses and other Fixed Assets (Physical Relocation) - Resettlement Assistance Package | | | | | |
| Recognized owners of the assets and structures (identified in the Surveys by the cut-off date) | Category 1 Households with an available relocation home | Housing: The housing package totals PGK41,500 consisting of various parts which have changed since the original Section 2 payments: (a)Cash Compensation: PGK11,500 with payments linked to signing of agreement, dismantling and garden establishment. (b)Deferred Payment: PGK10,000 (previously 20,000) deposit into an Interest Bearing Deposit or deferred payment for 6 or 12 months. A bonus of PGK400 for 180 days deferred, PGK1000 for 360 days deferred. (c)Replacement Housing: PGK20,000 for replacement housing. | Clearly inform about site development and relocation schedules Consultation to determine list of options for materials, goods and equipment Delivery of in-kind packages will be negotiated upon agreement and delivery will commence at the time of relocation | | | |
| | | Part D: Supplementary Package: Payment of PGK10,000 for structures of second or subsequent wives, or unmarried adult sons or daughters where they occupy separate structures and are recognized as a separate economic unit. | | | | |
| | | Provided to all households: Transition rations for nine months. Livelihood restoration measures directed at establishing and maintaining subsistence patterns. Access without financial penalty to old house materials. Provision of 4 sets of garden tools and malaria nets to family members. Provision of Compensation Advisor to assist and advise on investment and business options. | | | | |

| Eligibility | Affected Category | Assistance/Compensation | Considerations for Implementation |
|-----------------------|---|---|---|
| | Category 2 Households with no available relocation land | Support will be provided for finding suitable land for relocation Otherwise as for Category 1 | As for Category 1 |
| 2. Land Depriva | ation | | |
| Recognized landowners | Clans or other groups (e.g. ILGs) with rightful recognized claim to communal land | Annual payment for land deprivation as per guidelines set out in IPCA/Compensation Agreement includes compensation for use of, and damage to surface land. | Clearly inform about site development and relocation schedules. Clearly inform affected group authorities about site development and land allocation schedules and regulations. Compensation paid at agreed intervals directly and publicly to landowner. |
| | | Compensation for the use and enjoyment of the surface of the land. | The Company will pay Landowners at a rate per year (to be verified against market rates) for each hectare of land occupied (but not otherwise damaged) by the Company for depriving Landowner(s) of the use of the surface of the land, for cutting Landowner(s) off from other parts of their land, and for any loss or restriction of rights of way, in compliance with Section 118(2). |
| | | 2. Compensation for land surface damage. | If the surface of any land of the Landowner(s) is damaged by the Company, the Company will make a one-off compensation payment to the Landowner(s) for each hectare of the land surface which is damaged by the Company. |
| | | 3. Compensation for initial damage to naturally occurring bush, vegetation, birds, animals or fish at FRV. | The Company will make a single payment to the Landowner(s) for any damage on their land to the natural bush, birds, and fish (initial damage amount to be verified against market rates) for each hectare of land on which the Company damages the natural bush. |
| | Individual/ household landowners for garden land | Annual payment for land deprivation as per guidelines set out in the IPCA/Compensation Agreement (as above if land individually owned). Compensation for loss of crops and other assets at FRV. | As above for clan land. (Note that there is no privately registered land in the Project area.). |

| Eligibility | Affected Category | Assistance/Compensation | Considerations for Implementation |
|---|--|--|---|
| | | Livelihood restoration measures as above. Provision of Compensation Advisor. Vulnerable individuals and groups including aged, young, infirm and disabled will obtain the following: Assisted transit; Provision of enhanced house facilities on request and after consultation; and Other assistance on request and after consideration. | Identify all vulnerable households and the nature of vulnerability prior to resettlement, and monitor closely during implementation to ensure effective. |
| 3. Damage to Tr | ees and Crops | | |
| Recognized land and resource users and owners | Clans or other groups with rightful recognized claim to communal land Individual/ household landowners for garden land | Cash compensation based on FRV for trees naturally seeded in affected area Payments also for ditches, fences and drainage improvements. Cash or in-kind compensation FRV for affected area for crops and trees planted by individuals (excluding mature crops that can be harvested). Assistance to restore the livelihoods through economic restoration programs. | Clearly inform about site development and relocation schedules. One-off compensation to community (landowners group) directly and publicly to landowner. Clearly inform about site development and relocation schedules. Cash compensation at FRV. Cost at replacement of trees considering "lost production" at full replacement value. One-off compensation or at agreed intervals to individual/household owners directly and publicly. Compensation will include land and resources not affected by the Project but that will not be accessible due to relocation of owners to distant locations. (see reference below: Reduced Access to Land and Resources). Economic and livelihood restoration programs will have provisions directly targeting affected individuals/households. Provide compensation at or prior to the moment when the land/resource stops being available to the owner. |
| 4. Reduced acce | ess to Land and | Resources | |
| Persons recognized as landowners of | Individual/ household landowners | Cash or in-kind compensation at agreed intervals until reduction in access ceases. | Clearly inform about site development and relocation schedules. |

| Eligibility | Affected Category | Assistance/Compensation | Considerations for Implementation |
|---------------------------------------|--|--|--|
| land to which access is reduced | and land users with reduced access to land due to Project activities | Assistance to restore the livelihoods through economic restoration programs. | Cash compensation at FRV. |
| | | | "Lost production" compensation will be considered for compensation. This means that if there is interrupted access to land during construction for a short time then affected people will be eligible for compensation for lost production – i.e. what they could have grown or done with the land had they had access. One-off payment or compensation at agreed intervals to individual/household owner directly. This will be done publicly. Economic and livelihood restoration programs will have provisions directly targeting affected individuals/households. Compensation provided at or prior to the moment when access to land/resource takes effect. If access to land and resources is permanent due to distant relocation, Land Deprivation compensation will apply. |

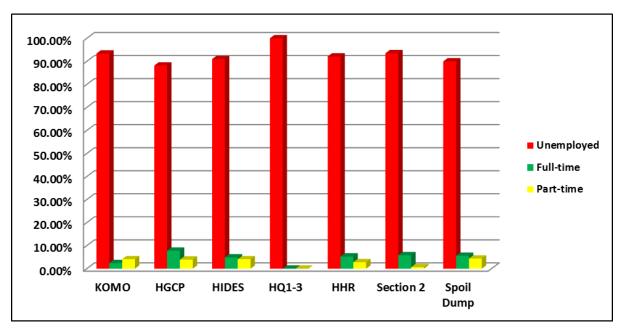
12.0 APPENDIX 2: SOCIAL, ECONOMIC AND CULTURAL CHARACTERISTICS⁵

Employment Activity and Income Sources

The logistics road social census recorded 93.5% of people had no form of paid employment at the time of the initial census in August 2010. This is unsurprising as construction works were just beginning and the establishment of lancos and contracts were not at an advanced stage. The majority of landowners are engaged in subsistence horticulture so these recorded levels of unemployment do not carry the same implications, values or consequences conventionally associated with industrialized societies. Most people in Huli produce to eat not sell.

Only 26 males and 1 female from established households had full-time paid employment, whilst 1 male and 3 females declared part-time employment. These paid employees had jobs as a driver, carpenter, teachers, field supervisors, load masters and clerical assistants. Employers included the Government, Oil Search, Missions, and various contractors and operators such as KSS, Oilmin, Carson Pratt, Interoil and MJC.

Appendix 2 Figure 1-1 indicates that across the resettlement impacted areas levels of paid employment of established households appear to show little variation. In this regard the logistics road Section 2 profile matches many of the resettlement impacted catchments in Hides and Komo and the levels recorded across the originally proposed HHR area.



Appendix 2 Figure 1-1: Comparative Employment Levels for HQ1-3, HGCP, HHR, Section 2, Spoil Dump, Komo and Hides Catchments

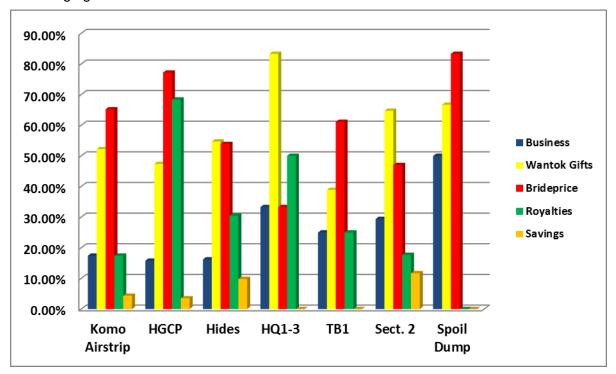
Longitudinal data from all previous petroleum and gas SIA surveys indicated that bride-price, local subsistence activity including fishing and cash cropping, and exchange (e.g. wantok gifts) continue to represent the vitality of the traditional economy in the financial lives of the populace. As noted above, loss and interruption of business compensation was paid out to 11 trade-store owners. Other declared business interests included shares in PMV vehicles, a bakery, a gaming and video house, a snooker hall and property rentals.

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⁵ All charts and analyses refer to Section 2 road households only. There is only one FN for Talibuni and Galoma Hale areas and thus too small a sample to warrant separate comment.

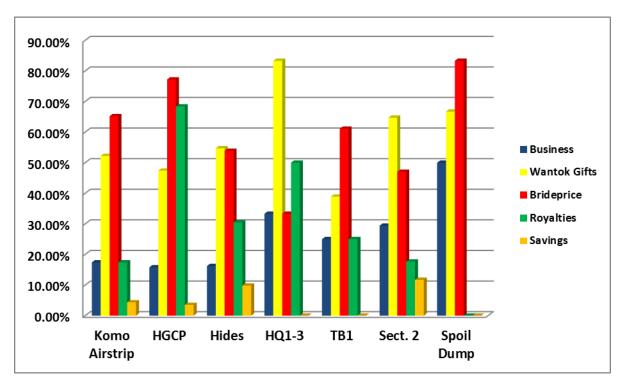
Appendix 2 Figure 1-2 sets out the principal income sources for the affected logistics road residents and compares this with the results for other resettlement impacted constituencies. The profile is broadly continuous with other impacted resettlement areas and we note the seemingly higher percentage of respondents with declared income from savings which is encouraging.



Appendix 2 Figure 1-2: Income Sources for HGCP, HQ1-3, TB1, Sect.2, Spoil Dump, Komo **Airstrip and Hides Catchments**

More than 50% of respondents declared income from sale of agricultural produce, coffee, food crops, and various livestock.

The patterns of expenditure (Appendix 2 Figure 1-3), recorded in the survey, point to the continuity of traditional modes of social exchange through bride-price, wantok gifts, and The profiles of expenditure are very similar in relative distribution funeral donations. between categories across most other resettlement catchments. It is likely the balance between expenditure in trade-stores and 'markets' has changed dramatically in the intervening period given the relative shortage in agricultural produce for sale and the relative decline in markets compared with the efflorescence in trade-stores and market-stalls.

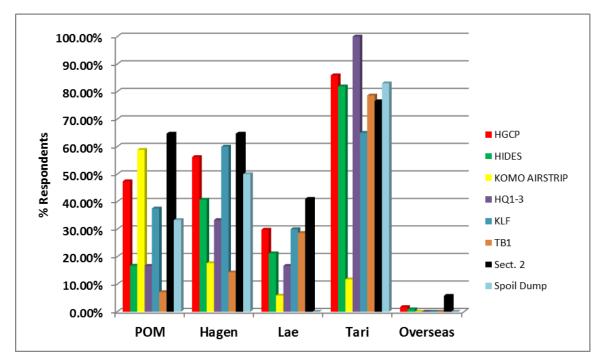


Appendix 2 Figure 1-3: Expenditure Patterns of HQ1-3, Section 2, Spoil Dump and HGCP Residents by Comparison with Komo Airstrip and Hides Catchments

As noted in other adjacent area RAPs, household item purchases such as biscuits (76%), rice (94%) and tinned fish (94%) are bought mainly from trade stores. The percentage levels are higher than in other locales due to the greater number and concentration of trade stores in the Komo airfield and road locations. By contrast, fresh meat (76%), vegetables (100%), fruit (82%) and buai (53%) are purchased from markets.

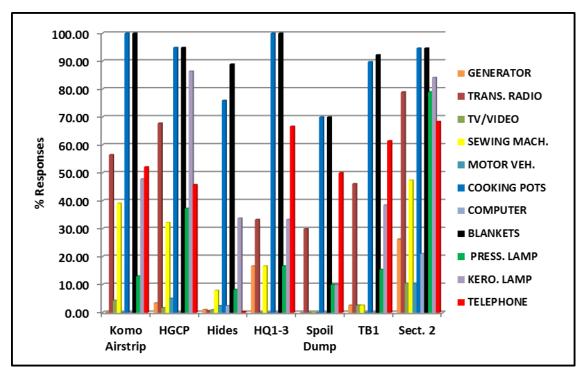
This division in food stuffs and how they are marketed in the area is unlikely to change in the short-term given the pronounced reluctance of trade-store owners to diversify the kinds of goods they sell and the equal reluctance of sellers to leave their fresh food goods with tradestore owners. Such items which are not purchased are likely consumed back in the household since there are no refrigeration units in the area.

Travel profiles for logistics road households (Appendix 2 Figure 1-4) appear mostly consistent with those across the area though with the higher income levels we note elevated levels of travel to capital ports in PNG and overseas.



Appendix 2 Figure 1-4: Travel Profiles for HQ1-3, KLF, TB1, HGCP, Sect.2, Spoil Dump and **Komo Airstrip and Hides Catchment**

Appendix 2 Figure 1-5 shows the comparative levels of reported ownership for a range of household assets. The relative levels of ownership and distribution of responses was slightly above regional means but one notes even as far back as 2010 the declared ownership of computers, sewing machines and radios. These elevated levels reflect the relatively high income levels and business interests of logistic road residents.



Appendix 2 Figure 1-5: Comparative Household Assets HQ1-3, Sect.2, TB1, HGCP, Spoil Dump, **Komo Airstrip and Hides Catchments**

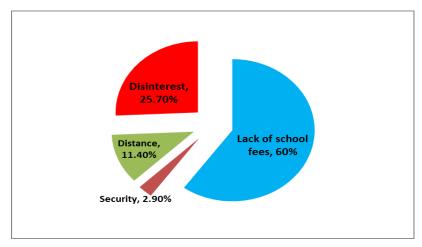
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Education Profile

School Attendance

The logistics road social survey indicates only 54% of school-age children were attending school with no discernible difference between male and female participation rates.

Appendix 2 Figure 1-6 shows the responses recorded for lack of school attendance with residents indicating 'lack of school fees', distance and disinterest of children as major factors. In part it may be that this set of circumstances will not change in the short-term during construction which looms as a major distraction for all residents in the area. The evident lack of government and governance—and thus any opportunity for joint Project and Government initiatives in education will continue until well after the projected national elections in 2012.



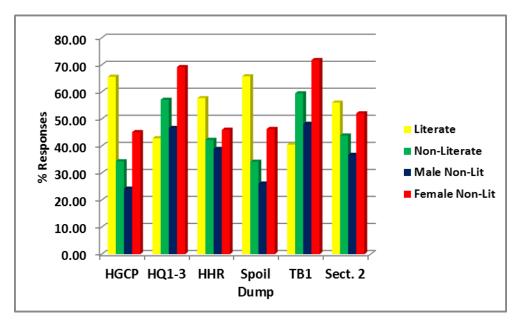
Appendix 2 Figure 1-6: Declared Explanations for Non-Attendance at School

Educational Attainment

Thirty-three per cent of persons aged 15 and over reputedly had no formal education, with a higher percentage of females lacking formal education. Only 6% of Section 2 residents aged 15 and over claimed they had achieved Grade 10. One female declared attainment of a vocational certificate and one male reported he had obtained a Diploma.

Literacy

Illiteracy rates for 15+ years (Appendix 2 Figure 1-7) was 44% in line with levels recorded for the general area: TB1 (60%), KLF (55%), Komo Airstrip (45%) and the wider Komo catchment (50%). As everywhere in PNG, Logistics Road female illiteracy rates (52%) were higher than recorded for males (36%).



Appendix 2 Figure 1-7: Literacy–Illiteracy and Male/Female Illiteracy Rates across Section 2, Spoil Dump, Hides and Komo Resettlement Impacted Areas