

Esso Highlands Limited



Papua New Guinea LNG Project

**Kutubu to Kantobo KP 80-153
Communal Resource Plan**

Addendum No. 1: KP 97.5 Laydown Area

PGHU-EH-SPZZZ-490014

CONTENTS

EXECUTIVE SUMMARY	4
1.0 INTRODUCTION.....	7
1.1 Background	7
1.2 Resettlement Goal.....	8
1.3 Sources of Information and Compliance Protocols	8
1.4 Project Description	8
1.4.1 Construction	8
1.4.1.1 Quarries / Borrow Areas.....	9
1.4.1.2 Construction near Waterways	9
1.4.2 Operations.....	9
2.0 INSTITUTIONAL AND LEGAL FRAMEWORK	9
3.0 SOCIAL, ECONOMIC AND CULTURAL ENVIRONMENT	9
3.1 Cultural Context.....	9
3.1.1 Social Organization of Clan	9
3.1.2 Subsistence Patterns.....	10
3.1.3 Types of Land Rights and Land Ownership	10
3.2 Land ownership	10
3.3 IPCAs and Project Socio-Cultural Context.....	10
3.4 Land Requirements	10
3.4.1 Land Needs	10
3.4.2 Minimizing Resettlement.....	11
3.5 Cultural Heritage Sites.....	11
4.0 CONSULTATION AND DISCLOSURE	11
4.1 Stakeholder Engagement	11
5.0 PROJECT IMPACTS.....	11
6.0 ELIGIBILITY AND ENTITLEMENTS.....	13
7.0 LIVELIHOOD RESTORATION PROGRAM	13
8.0 GRIEVANCE MANAGEMENT FRAMEWORK.....	14
9.0 ORGANIZATIONAL ROLES AND RESPONSIBILITIES	14
10.0 MONITORING AND EVALUATION	14
11.0 IMPLEMENTATION SCHEDULE	15
12.0 COST AND BUDGET ESTIMATE	15

FIGURES

Figure 1-1: KP 97.5 Laydown Area locality map..... 8
Figure 5-1: Social Sites Within Laydown and Access Road Areas 13

TABLES

Table 5 - 1: Principal Impacts Likely to be Experienced by KP 97.5 Laydown Landowners. 11
Table 5 - 2: Social Sites in the Laydown and Access Road Areas..... 12
Table 11- 1: CRP Implementation Schedule 15

ACRONYMS

Acronym	Definition
BSA	Benefit Sharing Agreement
CRP	Communal Resource Plan
EHL	Esso Highlands Limited
EIS	Environmental Impact Statement
ELC	Environmental Law Centre
FEED	Front End Engineering Design
FRV	Full Replacement Value
HGCP	Hides Gas Conditioning Plant
IFC	International Finance Corporation
ILG	Incorporated Land Group
IPCA	In-Principle Compensation Agreement
KP	Kilometer Point
Lanco	Landowner Company
LBBSA	License-Based Benefit Sharing Agreement
LNG	Liquefied Natural Gas
M&E	Monitoring and Evaluation
O&GA	Oil and Gas Act
OSL	Oil Search Limited
PNG	Papua New Guinea
PNG LNG	Papua New Guinea Liquefied Natural Gas Project
PS	Performance Standard
RAP	Resettlement Action Plan
RIT	Resettlement Implementation Team
ROW	Right of Way
RPF	Resettlement Policy Framework
SIA	Social Impact Assessment
SMLI	Social Mapping and Landowner Identification
UBSA	Umbrella Benefits Sharing Agreement
VG	Papua New Guinea Valuer General

EXECUTIVE SUMMARY

Introduction

Esso Highlands Limited proposes to develop the Papua New Guinea Liquefied Natural Gas Project to commercialize gas reserves within the PNG Southern Highlands and Western Provinces. An onshore gas pipeline and liquid condensate pipeline are required as part of the upstream infrastructure development for the Project.

An additional laydown area is required, adjacent to KP 97.5, within the pipeline section KP 80 – 153. The laydown area is required for 12 months for logistical support and for the storage of construction equipment and line pipe. This report has been prepared as an addendum to the Kutubu to Kantobo CRP (KP 80 - KP 153)¹ and is referred to as the Kutubu to Kantobo CRP -- Addendum 1: KP 97.5 Laydown Area.

Scope

This addendum focuses on economic displacement, there being no physical resettlement, resulting from the following:

- Laydown Area of approximately 4.0 ha, and
- Access road of approximately 0.23 ha, which will be 12 m wide and 190 m long. The total area required will be 4.23 ha.

The proposed site and access area have been used previously as a logging site for the milling of local timber with the result that the vegetation is predominantly disturbed lower montane small-crowned forest and secondary regrowth forest. The landscape of the KP 97.5 Laydown survey area can be broadly characterized as a flat valley floor, drained by numerous minor watercourses and drainage lines, with the topography increasing in elevation to the east of the site.

Resettlement Goal

The Project's overall resettlement goal is to minimize 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.

There is no physical resettlement but two fallow/abandoned gardens are located within the area as well as one breadfruit tree. The protocols defined in this CRP will be applied should additional gardens and structures be identified during the construction period.

Institutional and Legal Framework

The resettlement process complies with legal requirements and criteria as detailed in the Kutubu to Kantobo CRP.

¹Kantobo to Kutubu KP 80-153 Communal Resource Plan PGHU-EH-SPZZZ-490009, Oct 2011.

Social, Economic and Cultural Environment

The Fasu linguo-cultural group occupies the area around the site. The claimant landowner group is the Yaferaga clan from Hedinia Village. An IPCA covers the laydown area around KP 97.5.

Consultation and Disclosure

The Yaferaga clan was included in stakeholder engagement sessions undertaken for the KP 80 - 153 section of the pipeline. Clan representatives assisted with the surveys of the laydown area and were supportive of the development. The public disclosure of documents will include dissemination/distribution of this CRP addendum.

Project Impacts

The laydown and access road developments are expected to result in the following impacts and associated mitigation measures:

- Approximately 4.23 ha of communal forestland which has previously been used for logging will be accessed. Compensation will be paid according to IPCA negotiated rates. No physical resettlement is expected.
- Two fallow/abandoned gardens and one breadfruit tree will be compensated at Full Replacement Values.
- No businesses or employment is lost because of the Project. A logging site developed 2-3 years ago is no longer used.
- Impact on water resources will be low and mitigated according to the Water Management Plan.
- Access across the site will be affected and an alternative track will be constructed;
- No cultural sites are affected.
- Influx of migrants to the site is unlikely due both to the short duration of site use and lack of any direct associated employment. The use of the access road will be controlled.

The site will be used for 12 months during construction and will be rehabilitated thereafter, in accordance with the environmental management plans and in consultation with landowners.

Eligibility and Entitlements

Individual households subject to economic displacement due to loss of economic trees or gardens will receive damage and deprivation compensation as well as livelihood restoration, if required. Landowners will also be entitled to once off and rental payments for damage and deprivation, including loss of access to traditional hunting grounds. This will be paid out through clan representatives as per the IPCA agreement.

Livelihood Restoration Program

Although the loss of livelihoods is expected to be minimal, the Project will ensure it implements livelihoods restoration in accordance with IFC PS 5 and the RPF.

Grievance Management Framework

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

Organizational Roles and Responsibilities

Overall responsibility for the planning, implementation, and monitoring of economic displacement rests with the Company as specified in the RPF. The Company's Land & Community Affairs Team will undertake these activities.

Monitoring and Evaluation

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 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 the addendum implementation through to 2012.

Cost and Budget Estimate

The cost of the KP 97.5 laydown area is estimated at approximately US\$ 0.1 million, including IPCA clan payments

1.0 INTRODUCTION

1.1 Background

Esso Highlands Limited proposes to develop the Papua New Guinea Liquefied Natural Gas Project to commercialize gas reserves within the PNG Southern Highlands and Western Provinces. An onshore gas pipeline and liquid condensate pipeline are required as part of the upstream infrastructure development for the Project.

The upstream onshore gas pipeline extends 292 km and will transport natural gas from gas fields at Hides, Angore and South East Hedinia to the Omati Landfall. The onshore liquid condensate pipeline will transport condensate from the Hide Gas Conditioning Plant for approximately 109 km to the Oil Search Limited's Kutubu Central Processing Facility.

An additional laydown area is required at KP 97.5 for logistical support of the PNG LNG Project and will be used for the storage of construction equipment and line pipe for the construction of the pipeline from KP 153 northwards towards Homa - Pua. This report has been prepared as an addendum to the Kutubu to Kantobo CRP (KP 80 to 153)² and is referred to as the Kutubu to Kantobo CRP -- Addendum No.1: KP 97.5 Laydown Area.

This addendum focuses on economic displacement (there being no physical resettlement) resulting from the following constructions:

- Laydown Area of approximately 4.0 ha, and
- Access road of approximately 0.23 ha, which will be 12 m wide and 190 m long. The total area required will be 4.23 ha

The proposed site has previously been used as a logging site for the milling of local timber. Access to the Laydown Area is via an existing, 2-m-wide bush track that extends eastwards from the existing Moro to Gobe Road to the western corner of the site. The short 190 m access road will be constructed along the existing bush track's alignment to provide vehicle passage between the existing Moro to Gobe Road, the KP 97.5 Laydown Area and the ROW.

The landscape of the KP 97.5 Laydown survey area can be broadly characterised as a flat valley floor, drained by numerous minor watercourses and drainage lines, with the topography increasing in elevation to the east of the site. These drainage lines and watercourses flow to a nearby unnamed river that subsequently joins an outlet of Lake Kutubu. The location of the survey area is downstream of nearby villages and settlements.

The vegetation within the KP 97.5 Laydown Area is predominantly disturbed lower montane small-crowned forest and secondary regrowth forest. The disturbed nature of the area is attributed to past logging activities.

²Kantobo to Kutubu KP 80-153 Communal Resource Plan PGHU-EH-SPZZZ-490009, Oct 2011.

Figure 1-1 illustrates the location of the site in relation to the KP 80 - 153 pipeline section.

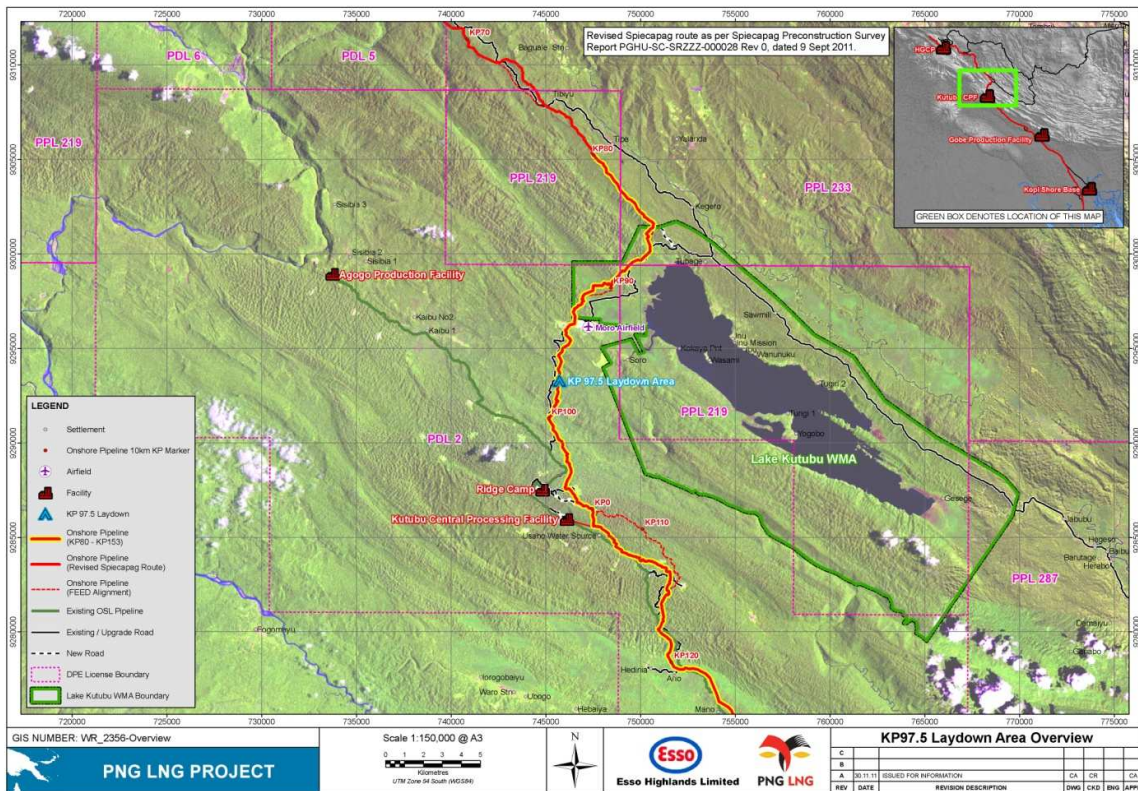


Figure 1-1: KP 97.5 Laydown Area locality map

1.2 Resettlement Goal

The Project's overall resettlement goal is to minimize 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 addendum is consistent with the goals, principles and processes set out in the Resettlement Policy Framework (October 2009).

Whilst no physical relocation is anticipated within the laydown area and access road, should any activities covered by this CRP result in a need to relocate households, RAPs commensurate with the scale and complexity of resettlement will be prepared in accordance with the RPF.

1.3 Sources of Information and Compliance Protocols

Key sources of information for compilation of this addendum are detailed in the Kutubu to Kantobo CRP. This addendum is compliant with all the Lenders and Social Requirements.

1.4 Project Description

1.4.1 Construction

The laydown area of 4.0 ha is required for the construction of a pipeline storage yard and for logistical support. An access road to the laydown area will be constructed along an existing bush track. The area will be required for 12 months, commencing February 2012, after which

it will be rehabilitated according to the Environmental Management Plan guidelines for a brownfields site.

1.4.1.1 Quarries / Borrow Areas

No quarry or borrow areas outside the laydown site were planned at the time this document was prepared.

1.4.1.2 Construction near Waterways

As per the Company's Water Management Plan, prior to commencement of construction work, people utilising water sources within the Project area will be informed through community consultation of the type, location, timing and duration of construction activities. The KP 97.5 Laydown Area is situated downstream of nearby villages and settlements and there are other water resources in the area (Puni River, Arusiamano Creek, Egehe Creek and several unnamed watercourses) that can be used for drinking, cooking and washing. However, particular attention will be given to the water resource Buni Creek (07-SO-191), as it flows through the access road construction footprint and will be impacted during construction. Although minimal impact is expected, should access to water be affected for any reason then the same mitigation measures will be applied as detailed in the Kutubu to Kantobo CRP.

1.4.2 Operations

The laydown area will be required only for the construction period of 12 months and will be rehabilitated thereafter. The same applies to the access road, which will be decommissioned and reinstated to its use as a bush track.

2.0 INSTITUTIONAL AND LEGAL FRAMEWORK

The principal PNG legislations relating to land and compensation are the 1996 Land Act and 1998 O&GA. PNG has no formal resettlement policies or statutes. Further details are included in the Kutubu to Kantobo CRP.

3.0 SOCIAL, ECONOMIC AND CULTURAL ENVIRONMENT

Details of social, economic and cultural environment for this section of the pipeline are included in the Kutubu to Kantobo CRP. The Fasu linguo-cultural group occupies the laydown area and access road.

3.1 Cultural Context

3.1.1 Social Organization of Clan

Fasu social organization is based on patrilineal descent³ principles with clans (*aporoira*, 'man line') and sub-clans having headmen (*uniha*) as corporate representatives. Fasu clans are often represented in more than one village and, because of their small size, prone to erratic population fluctuations. The clans are totemic in the sense of recognizing descent from some animal or plant species. Fasu land use and tenure are determined by descent group membership. There are common clan segment territories and distinct hunting districts

³**Patrilineal (or agnatic) descent** - by this is meant that people are born into, or become members of, named groups commonly called **clans** by virtue of their capacity to demonstrate an unbroken line of descent to founding ancestors through successive generations of male links.

as well. These clan segments are normatively corporate groups whose members define themselves in terms of common and collective responsibilities for each other's bride wealth obligations.

Whilst the clan segment acts as a landholding unit, and is commonly registered as an independent ILG, individuals hold separate land parcels by exploiting them for productive purposes. Such rights are passed from father to son. Access to land use can also be extended to others based on cognatic kinship or affinal ties.

3.1.2 Subsistence Patterns

The Fasu are traditionally dependent on three forms of subsistence strategy, as detailed in Kutubu to Kantobo CRP: sago palm cultivation; swidden (shifting) gardening or horticulture, and hunting, gathering, fishing and pig husbandry.

Two fallow/abandoned gardens were identified within the construction area which were last cultivated when the site was utilised for timber milling.

3.1.3 Types of Land Rights and Land Ownership

Although as noted above the local clan owns territory communally, individuals within the clan stake their claims to particular places within the communal territory, and commonly these men's sons continue to live at these places and utilize resources around them. These men acquire rights over the places that are considered proprietary and can even prevent other local clan members from encroaching on the land.

Permanent and semi-permanent tree crops including sago palms, Pandanus, kara'o (tigaso) trees and a variety of others are individually owned. A man may request permission to plant such permanent trees on another man's land and sometimes this is granted. Land decisions are usually relegated to those directly involved or impacted.

3.2 Land ownership

The KP 97.5 Laydown Area is owned by the Yaferaga Clan. The clan representative (from Hedinia Village), was present during the surveys.

3.3 IPCAs and Project Socio-Cultural Context

The IPCAs was signed on the 12 August 2009 for this section of the pipeline, which included signing by the Yaferaga clan. The full IPCA is included in the Kutubu to Kantobo CRP.

3.4 Land Requirements

3.4.1 Land Needs

The land-take for the laydown area and access road is 4.23 ha. IPCA compensation rates are the same as those detailed in the Kantobo to Kutubu CRP.

The laydown area includes the remains of an old timber milling site. The area is not presently used for residential settlement or active gardening. There are two fallow/abandoned gardens within the laydown and a breadfruit tree within the road construction area. Other signs of past gardening activities in the area include a cluster of three red Pandanus plants and one young sago palm, all located outside the site. Any affected trees or crops will be fully compensated at FRV.

All construction, logistics and labor resource activities will be undertaken in accordance with the Social Management Plans detailed in the Kantobo to Kutubu CRP. The construction footprint shall be demarcated and works shall not be permitted to exceed the designated areas as defined in Figure 5-1.

Negotiations will be conducted with landowners with respect to the rehabilitation and return of the laydown area, taking account of environmental considerations.

3.4.2 Minimizing Resettlement

The laydown site was previously impacted by timber milling activities. Although a walking path from the Kara hamlet crosses the site, the social and physical impacts are assessed as minimal. No settlement or active gardening is currently undertaken on the site.

3.5 Cultural Heritage Sites

There are no cultural or archaeological sites in the laydown area or along the access road.

4.0 CONSULTATION AND DISCLOSURE

4.1 Stakeholder Engagement

Stakeholder engagement interactions along the KP 80 - 153 section were detailed in the Kutubu to Kantobo CRP that included the Yaferaga Clan. Representatives of the clan were present during the PCS surveys and are in favour of the development.

5.0 PROJECT IMPACTS

Although the site is unoccupied, the laydown area is close to villages and settlements and therefore traversed by local villagers from the surrounding area. Table 5 - 1 summarizes principal impacts likely to be experienced by landowners.

Table 5 - 1: Principal Impacts Likely to be Experienced by KP 97.5 Laydown Landowners

Impact	Scale	Mitigation – Project Responses
Residential, business or other structures affected	None.	None (if structures are encountered then protocols detailed in the HGCP RAP will be implemented.)
Loss of trees and crops	Two fallow/abandoned gardens and one breadfruit tree.	As per O&GA Section 118 and Eligibility Matrix landowners are entitled to one-off damage compensation payments, should losses arise. Garden and tree owners will be compensated for loss of crops and trees at FRV.
Loss of forest/other natural resources	Access to 4.23 ha of communal forest resources. The area was previously logged and utilized as a sawmill site so has been disturbed.	As per O&GA Section 118 and Eligibility Matrix these affected landowners are entitled to temporary loss, damage as well as deprivation compensation. All currently negotiated rates will be verified against full replacement values (market rates). These payments will be made to the Yaferaga clan. In the event of disputes, the money is held in reserve until the dispute has been resolved either formally through the court system or informally.
Disruption in social networks	No physical relocation. Some affect from contractors' workers operating in the area during construction.	Minimal. Contractor's workers will be housed within a closed camp environment to minimize the effect associated with the introduction of large numbers of people into the community.
Water	Minimal. No water sources on the site are used specifically by local villagers but the Buni Creek may be	The Company's Water Management Plan mitigation measures and consultation processes are in place. Where water supplies are impacted mitigation measures will

Impact	Scale	Mitigation – Project Responses
	affected during construction of the access road.	include provision of trucked water and possible provision of water shelters.
Impacts on Business/ Employment	No existing business will be impacted. The logging-milling site is no longer used.	No loss of employment anticipated and there are no businesses, which require relocation or compensation.
Access	One access track linking the Kara hamlet to the main vehicular road, is affected and local communities traverse the area.	An alternative track will be constructed around the site. Appropriate traffic controls implemented along the access road.
Cultural Sites	None	None
Influx of Migrants	Minimal owing to the nature of use and the short duration.	The access road will be operated as a private project road during the construction period which will limit any influx.

The location of various social sites within the laydown and access road areas are illustrated in Figure 5-1 and include the following:

Table 5 - 2: Social Sites in the Laydown and Access Road Areas

Feature ID	Description	Impact
07-SO-191	<i>Buni Creek about 3 m wide running from north west to south east</i>	<i>Buni Creek is located within the access road construction footprint. Potential temporary loss of water resource</i>
07-SO-192	One breadfruit tree	Food source and potential income
07-SO-196	Fallow/abandoned garden that contains tree crops including Pandanus (marita), bamboo and tree fern.	Food source and potential income
07-SO-197	Old milling site during the small sawmilling operations in the area between 2007 and 2009.	No longer used
07-SO-198	Fallow/abandoned garden that contains tree crops including Pandanus (marita) and bamboo.	Food source and potential income

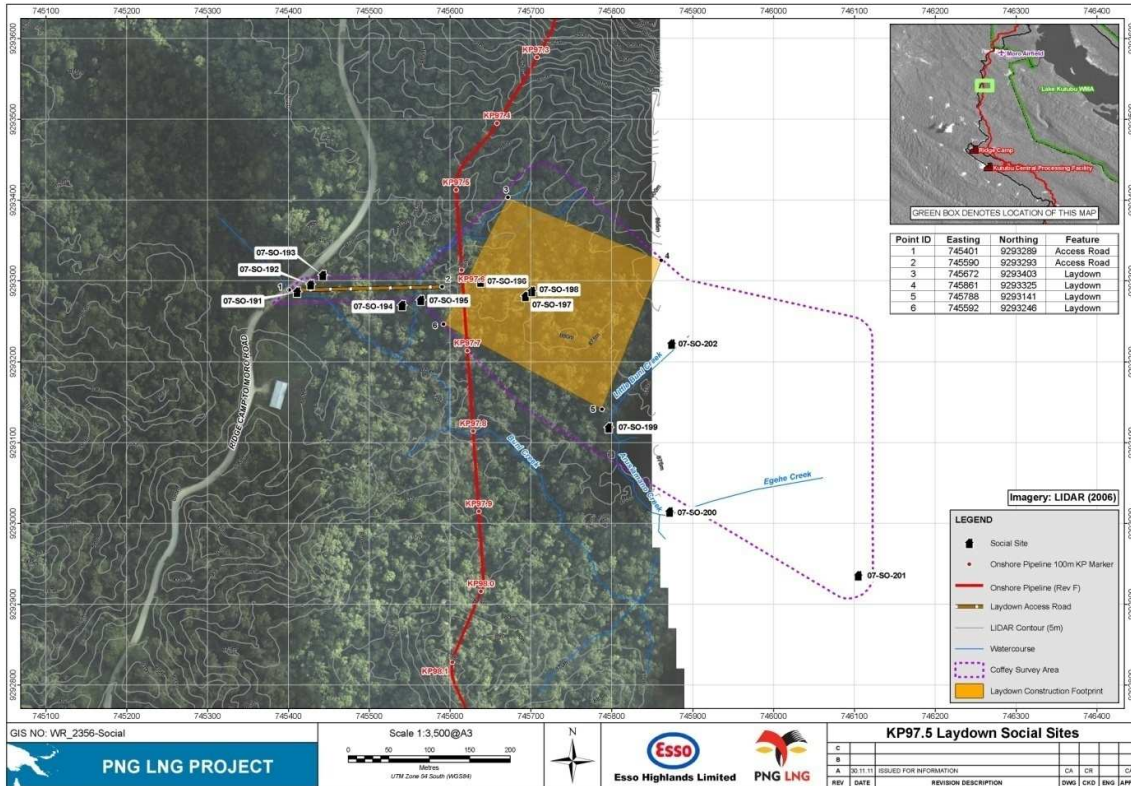


Figure 5-1: Social Sites Within Laydown and Access Road Areas

6.0 ELIGIBILITY AND ENTITLEMENTS

The RPF provides a full schedule of eligibility criteria for compensation and entitlements that will be adopted for the Project. The entitlements for the laydown area will be the same as those detailed in the Kutubu to Kantobo CRP.

7.0 LIVELIHOOD RESTORATION PROGRAM

Garden owners will be compensated for crop losses at full replacement value. However, as all impacted gardens in this area are temporary/one-rotation gardens, and all households have alternative gardens and will be moving onto other areas as is their custom, the livelihoods restoration program has less relevance. Nevertheless livelihoods will be monitored and the Project will ensure it restores impacted livelihoods in accordance with IFC PS 5 and the RPF as detailed in the HGCP RAP (Section 8)⁴.

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

8.0 GRIEVANCE MANAGEMENT FRAMEWORK

The resettlement process for KP 97.5 Laydown Area 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 laydown area is defined in the RFP. The Project will disclose information about the Grievance Mechanism to the affected laydown-communities, adjoining landowners and 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 and posters). The grievance procedure has been explained to communities along the KP 80 -- 153 section.

9.0 ORGANIZATIONAL ROLES AND RESPONSIBILITIES

The Company is responsible for overall resettlement planning, implementation, and monitoring as per the RPF, which is implemented by the Land & Community Affairs Team. Organizational details are described in the HGCP RAP, Section 10.

10.0 MONITORING AND EVALUATION

The Monitoring and Evaluation system (M&E) 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.

Further principles of the monitoring process to be implemented can be obtained from the HGCP RAP section 11. In the event of physical or economic displacement, the following parameters will be monitored: timely payment of compensation; works confined within agreed and defined works areas; unforeseen impacts of drainage changes or livelihood resources; complaints about project social or environmental performance; and timely and effective close-out of grievances.

11.0 IMPLEMENTATION SCHEDULE

Table 11- 1 below sets out an estimated timeframe of the tasks to be implemented. .

Table 11- 1: CRP Implementation Schedule

Activity or Task	Actions	2011		2012			
		N	D	J	F	M	A+
Planning	Completion of Addendum to CRP	■					
Approvals	Internal EHL approval of the CRP	■	■				
	CRP Submission to Lenders		■				
	CRP Summary to community			■			
Land Issues	Confirm resettlement sites and any impacted water sources (provision)		■	■			
Confirm and finalize compensation agreements	Verify inventories of affected land and assets (incl. special valuations)		■	■			
	Confirmation of any vulnerable households			■			
	Finalize any entitlement contracts			■			
Compensation payments	IPCA payments and cash payments to individuals (provision - gardens)			■	■		
Graves, spiritual and other cultural sites	Relocate / recover (provision)			■			
Livelihood restoration	Implement programs (provision)			■			
Verification and monitoring	Design and implementation of monitoring and evaluation system (ending Dec 2013)			■			
	Local advocacy and compensation advisors	■	■	■	■		
	Internal monitoring			■	■	■	■
	External evaluation (including completion audit)						■

12.0 COST AND BUDGET ESTIMATE

Budget provision of US\$ 0.1 million is included for forest damage and deprivation costs to clans, as well as losses associated with individual gardens and trees and other social infrastructure