



Department of Provincial & Local Government Affairs

Rural Service Delivery and Local Governance Project

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

Final Draft June 25, 2013

Papua New Guinea: Rural Service Delivery and Local Governance Project

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

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ACRONYMS

AusAID	The Australian Agency for International Development
BP	(World) Bank Procedures
CDD	Community Driven Development
CLUA	Clan Land Use Agreement
DEC	Department of Environment and Conservation
DPLGA	Department of Provincial and Local Government Affairs
EA	Environmental Assessment (of the World Bank)
EC	Environmental and Social Coordinator (PMU level)
ECOPs	Environmental Codes of Practice
EIA	Environmental Impact Assessment (of DEC)
EIS	Environmental Impact Statement (of DEC)
EMP	Environmental Management Plan
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESPC	Environmental and Social Protection Champion (community level)
ESSC	Environmental and Social Safeguards Checklist
GoPNG	Government of Papua New Guinea
GRM	Grievance Redress Mechanism
IPPF	Indigenous Peoples Policy Framework
LLG(s)	Local Level Government(s)
M&E	Monitoring and Evaluation
MIS	Management Information System
OP	Operational Policy (of the World Bank)
PEC	Provincial Environmental and Social Coordinator (PPO level)
PMU	Project Management Unit (within DPLGA)
PNG	Papua New Guinea
PNGSDP	Papua New Guinea Sustainable Development Program
PPO	Provincial Project Office
PSC	Project Steering Committee
RSDLGP	Rural Services Delivery and Local Governance Project
WB	World Bank
WDC	Ward Development Council

1. INTRODUCTION

1.1. Purpose of the Environmental and Social Management Framework

The overall objective of the Environmental and Social Management Framework (ESMF) is to provide guidance and processes to the project planners, proponents and implementers of the Rural Services Delivery and Local Governance Project (RSDLGP) in identifying, appraising and implementing sub-projects to adequately address and mitigate adverse environmental and social impacts that potentially may be generated by the sub-project activities. This is also to ensure that the project complies with the Government of Papua New Guinea (GoPNG) and the World Bank's safeguards policies and that appropriate institutional and capacity building arrangements are established and strengthened through the project.

The ESMF establishes the objectives, procedures, institutional framework and implementation arrangements for identifying, managing and monitoring potential environmental and social impacts of the project activities. It provides mechanisms for public consultation and disclosure of project documents as well as redress of possible grievances.

Specifically the ESMF will provide guidance on the following:

- The relevant GoPNG and World Bank laws, regulations, policies and procedures that govern the environmental and social safeguards that apply under the RSDLGP;
- The processes to be applied and the responsibilities for ensuring and carrying out relevant activities that would safeguard against environmental and social risks;
- The types of sub-project that due to their nature or location would be ineligible for support under the RSDLGP due to the environmental and social safeguards requirements of the project;
- The issues that need to be considered in screening sub-project proposals to identify the types of mitigating measures or actions to avoid environmental or social risks
- A set of standard/generic Environmental Codes of Practice that would assist communities and RSDLGP entities (DPLGA, Provincial Administrative offices and Local Level Administrative units) in identifying and monitoring application of the relevant mitigating measures;
- A simple format for an Environmental and Social Management Plan (and a Clan Land Use Agreement for the donation of land, if required) that would be developed for each sub-project that requires specific mitigating actions;
- Implementation responsibilities including monitoring and reporting arrangements for the DPLGA/PMU, Provincial Administrative offices/PPOs, LLGs, and the World Bank supervision arrangements;
- Guidance on a Grievance Redress Mechanism that would facilitate the provision of feedback or complaints on all aspects of project implementation including environmental and social safeguards issues.

In relation to the World Bank’s safeguard policy on Indigenous Peoples (IPs), it is important to note that an Indigenous Peoples Policy Framework (IPPF) is not included as part of this ESMF. This is due to the fact that, given that the overwhelming majority of beneficiaries are indigenous peoples, compliance with the World Bank’s IP safeguard policy is directly incorporated into the project design. A summary of how the main concerns of the IP policy are reflected in the design is presented in an annex to the Project Appraisal Document, which is disclosed in lieu of an IPPF.

This ESMF document has been prepared by the Department for Provincial and Local Government Affairs (DPLGA), publicly consulted and vetted by key stakeholders, and will be disclosed locally in Port Moresby at the offices of DPLGA, and at the offices of participating provinces and Local Level Governments (LLGs), as well as through the World Bank’s Infoshop before appraisal of the project has been completed.

1.2. Organization of Report

The remainder of this document addresses the following areas: a summary description of the RSDLGP, the basic physical and social geography of the project’s area of operations, the institutional and implementation arrangements particularly in relation to safeguards, identification of the project’s pilot areas of operation, relevant GoPNG and World Bank legal, regulatory and policy framework for the environmental and social safeguards, and a description of the environmental and social safeguards processing and management guidelines that would be applied under the RSDLGP. The document also includes as annexes: a customized set of Environmental Codes of Practice to guide the identification of risk areas and mitigating measures for eligible sub-projects, an Environmental and Social Safeguards Checklist to screen sub-projects and identify specific necessary mitigating measures, a model “Clan Land Use” agreement for voluntary land donation, guidelines governing “chance find” measures for physical cultural property, and a summary of the Grievance Redress mechanism for the project that would cover environmental and social safeguards issues and concerns.

1.3. Project Description

The Rural Service Delivery and Local Governance Project is a 3-year pilot project jointly financed and implemented by the Government of Papua New Guinea, PNG Sustainable Development Program (PNGSDP), and the World Bank. AusAID is also financing relevant project inputs in relation gender and inclusion, and independent monitoring of the project. The project shall be implemented initially in two provinces and later to be scaled-up according to the results of the pilot-testing. RSDLGP shall support the current directions of GOPNG with regard to improving service delivery at the local level, consistent with priorities expressed in the Vision 2050 document and the Development Strategic Plan. RSDLGP shall actively seek the participation of other development partners during pilot implementation.

1.3.1 Project Development Objective

The development objective of RSDLGP is to pilot a successful Community Driven Development (CDD) platform in PNG that would later be scaled up and eventually adopted by government as a way to improve the access, quality and management of basic public services delivered in rural communities. In so doing, the pilot project would help to address the low levels of access and desired development outcomes of a number of basic services (health, education, water, transport, etc.) in the target local level governments (LLGs) and wards of the two pilot provinces. The CDD approach focuses on empowering a broad base of community members to participate in the prioritization of community needs, design of projects to meet these needs, as well as the implementation and monitoring of the projects.

1.3.2 Project Components

The RSDLGP has three main components: (i) systems and financing of community service-delivery grants, (ii) capacity building of national and sub-national government (or non-government) entities, and (iii) project management (including monitoring, evaluation and knowledge sharing). These three components are described in more detail below.

1.3.2.1 Component 1: Systems and Financing of Community Service Delivery Grants

This component shall provide grants to Local Level Governments (LLGs) to finance community-identified sub-projects. Communities will be responsible for the identification and prioritization of community needs. The sub-projects will be developed through a participatory planning process that will be integrated into the preparation of Ward and LLG development plans. Typical sub-project grants are expected to include small-scale community infrastructure, technical assistance and capacity building, and enhancement of sustainable service delivery systems.

1.3.2.2 Component 2: Capacity Building of National and Sub-national Entities

This component shall support the strengthening of capacities of national and sub-national government (and non-government) entities to manage and implement the project, and to improve local governance as it relates to basic service delivery. There are three (3) sub-components under this component, namely (i) capacity building of the Department for Provincial and Local Government Affairs (DPLGA); (ii) capacity building of Ward and LLG Personnel; and (iii) social capital formation at the Ward level.

1.3.2.3 Component 3: Project Management

This component shall support a Project Management Unit (PMU) at the national level and Provincial Project Offices (PPOs) in the targeted provincial administrations. The national team would lead the dialogue with sub-national partners in setting up and executing the project, in the development of the procedures and materials to be used in support of the first two components of the project, and in coordinating the work at national level. Where required, additional contractual staff, consultants, and technical

advisors will be brought in to support project implementation and gradually build local capacity. A robust monitoring and evaluation (M&E) system, a project management information system, and a grievance redress mechanism will be developed as part of the overall project management system.

1.4 Basic Geography

Papua New Guinea is located within the tropical zone (latitude 0° (equator) to 12° S and longitude 141° E to 156°30' E (Figure 1). It shares international land boundary with Irian Jaya Province, Indonesia to the west and Australia lies to the south. PNG has total land area of 462 842 sq km and only 27 percent is occupied by people. The land is covered with tropical type vegetation of comprising forests (360 000 sq km), rivers, 10 940 sq km, coastline (5 152km), reefs (40 000 sq km), 5 380 lakes, and vast areas of grasslands and savannah woodlands.

Papua New Guinea's varied physical geographic scenery reflects a generally recent geologic history. The movements of the Earth's crust resulted in the collision of the northward-moving Australian Plate with the westward-moving Pacific Plate and the consequential folding creating Fold Mountain ranges. The low-lying plains of southern New Guinea are geologically part of the Australian Plate. Indeed, New Guinea was separated physically from Australia only 8,000 years ago by the shallow flooding of the Torres Strait. The southern New Guinea plains, called the Fly-Digul shelf after the Fly and Digul rivers, are geologically stable but very sparsely populated by semi-nomadic sago gatherers.

PNG has four main geopolitical regions including Southern, Highlands, Momase, and Highlands which contain country's general cultural, geographic, and political features impacting on socioeconomic development initiatives. The country has 22 provinces, 89 districts and 297 Local Level Government Units. PNG has a diversity of cultural and biological resources which are mostly managed under traditional communal landownership (97 percent) with only 3 percent owned by the state.

1.4.1 Existing Physical Environment

The main ecosystems of PNG include littorals or mangrove forests, swamplands, lowlands forests, savannah, grasslands, tropical rainforest and mountain type vegetation. The relief and landforms play a part in distribution or density of various flora and faunal species. The ragged mountainous terrains and swampy landscapes are also blamed for topographic difficulty in carrying out infrastructure development for effective delivery of goods and services to the rural areas of PNG. The natural environment of PNG contains unique and diverse forms of flora and fauna, comparable to global scales.

The forests of PNG are the third largest block of intact tropical forest in the World. Papua New Guinea has significant forest resources that have been commercially exploited through industrial scale developments since the 1970s. Estimates of Papua New Guinea's forest resources vary between 26.1 million hectares to around 33 million hectares or approximately three-quarters of PNG's land mass. The forests of Papua New Guinea are generally referred to as Tropical

rainforests, monsoonal forests, savannah Woodlands or Gallery forests zoned altitudinally as either a lowland or montane locality.

Papua New Guinea's rich ecosystems contain considerable biodiversity. Varying rainfall, temperature differences, altitude, soil, geological and history of natural disturbances have greatly contributed to the wide variety of biological compositions and distribution in PNG. The flora and fauna is diverse and pristine with comparable capacity or value to other parts of the world. The terrestrial and aquatic, marine and coastal flora and fauna has range of values and most are yet to be fully understood for economic development. The geological activities of volcanism, earth movements and subsequent mountain building processes contributed to the formation of the valuable mineral resources which are currently being mined. Extractive industries in some areas have led to major environmental disasters that include massive deforestation, pollution from mines (including along the Fly river of Western Province), flooding and severe droughts.

1.4.2 Social-Cultural Environment

PNG has over 800 languages and cultural groups while natural environment is a niche to variety of biological species, mineral, petroleum and energy resources, and fresh air generated from natural primary forests. The aquatic environments and resources of both freshwater and saltwater origin are also naturally healthy as the terrestrial environments, except for areas under mining, logging, petroleum, commercial agriculture and transportation infrastructures development corridors. The country contains a range of protected, endemic, endangered, and rare biological species, while there are also various sites of significance to culture and heritage. These environmental conditions are vital to livelihood of the majority of the rural population for food, shelter, clothing, beverages, aesthetics and modern economic opportunities.

In PNG, more than 80 percent of the country's population lives in rural areas. Rural settlement patterns are extremely varied. In isolated areas of the southern interior there still remain a handful of the previously common giant communal structures that house the whole male population, with a circling cluster of women's huts. In many coastal areas, villages stretch between the beach and an inland swamp in long lines usually broken into clan or family segments.

A detailed social assessment (SA) was carried out in preparation of the project and was formally disclosed by Government and the World Bank. The key findings of the SA are that: (i) women are marginalized in general (all groups studied were patrilineal societies) but have differing levels of power in different communities but note that in general their status has been improving, (ii) the village court system works well as a traditional dispute resolution mechanism in both provinces, while the church also plays a prominent role in some areas, (iii) decisions regarding land are handled by clan leaders alone in Western province, whereas in Central church leaders also play an important role; allocating land for development activities is done consensually, and (iv) literacy levels are low, especially in Western province and among women.

Nearly all socio-economic indicators are significantly worse in rural areas than in towns and cities. Poverty in PNG is defined also in terms of lack access to functional basic infrastructure. A significant proportion of the population is unable to take advantage of basic public infrastructure

and services. In 2006, an estimated 39 percent of Papua New Guineans lived on less than US\$1 per day. Fifty-three percent of the population now lives below the national poverty line, and the share of rural poverty is estimated to be around 85 percent.

1.5 Project Location

The project would initially be piloted in two provinces and 8 local level governments (LLGs): Western Province (Kiunga Rural, Lake Murray, Kiwai and Oriomo-Bituri LLGs) and the Central Province (Cloudy Bay, Rigo Inland, Kairuku and Tapini LLGs).

Western Province is a coastal province and the largest and least densely populated in PNG. It comprises more than half of the country's border with Indonesia. There are several large rivers that run through the province including the Fly River and its tributaries (Strickland and Ok Tedi rivers). The largest lake in Papua New Guinea, Lake Murray, is also in Western Province. The Tonda Wildlife Management Area in the south-western corner of the province is a wetland of international importance and the largest protected area in Papua New Guinea. The RSDLGP will not operate in the LLG in which Tonda WMA is located (Morehead). The major economic activity in the province is constituted by the Ok Tedi Mine, initially established by BHP and the subject of considerable litigation by traditional landowners both in respect of environmental degradation affecting the livelihoods of many communities along the length of the Fly River, and disputes over royalties. Western has a total estimated population of 153,304 inhabitants (2000 census), 3 districts of North, Middle and South Fly, and 14 local level administrative units.

Central Province is situated on the south coast of PNG and extending inland to the Owen Stanley Range. The city of Port Moresby or National Capital District (NCD) is within Central Province. Transportation to most district is by road except the inland Goilala District. Goilala District is home to Tolokuma Gold mine and transportation is by air. Motu people live in the coastal areas, while inland is primarily occupied by the Koitabu and the Koiari. The Koiari people live in the hills around the sogeri plateau, the Varirata National park occupies Koiari traditional hunting grounds, and the Sirinumu Dam is also on Koiari land. Central provinces has 4 districts of Abau, Rigo, Kairuku-Hiri and Goilala. There are 13 local governments in Central Province, and the total population is 183,983.

Maps of Western and Central Provinces are shown on the following pages.

Figure 1: Map of Central Province, PNG



Figure 2: Map of Western Province, PNG



2. PROJECT INSTITUTIONAL AND IMPLEMENTATION ARRANGEMENTS

The agencies and organizations responsible for the implementation of the RSDLGP are: (i) the Department for Provincial and Local Government Affairs (DPLGA); (ii) the Provincial and District Governments of the two pilot provinces; (iii) selected LLG Governments; (iv) selected Ward Development Councils; (v) the World Bank; (vi) the Papua New Guinea Sustainable Development Program (PNGSDP Ltd.); and (vii) Other relevant government agencies through the RSDLGP Project Steering Committee (PSC). A Project Management Unit (PMU), lodged within the DPLGA, and its associated Provincial Project Offices (PPOs) shall manage the day-to-day operation of the project.

The overall responsibility of ESMF implementation and compliance monitoring is with DPLGA. The Project Management Unit (PMU) will include staff from the Department and consultants funded by the project. It will be responsible for ensuring the screening and impact mitigation mechanisms are implemented. It will designate an Environmental and Social Coordinator (EC) from among its staff who will be the focal point for all matters relating to the environmental and social issues during the project. Each pilot province will also designate a Provincial Environmental and Social Coordinator (PEC) who will be responsible for monitoring environmental and social issues within the sub-projects in their respective provinces.¹ All communities implementing a sub-project will be required to nominate an Environmental and Social Protection Champion (ESPC) who will be responsible for ensuring that the environmental and social process steps as described in the ESMF are followed. These “Champions” will be responsible for implementing and reporting on the sub-projects’ compliance to the ESMF to the PPO.

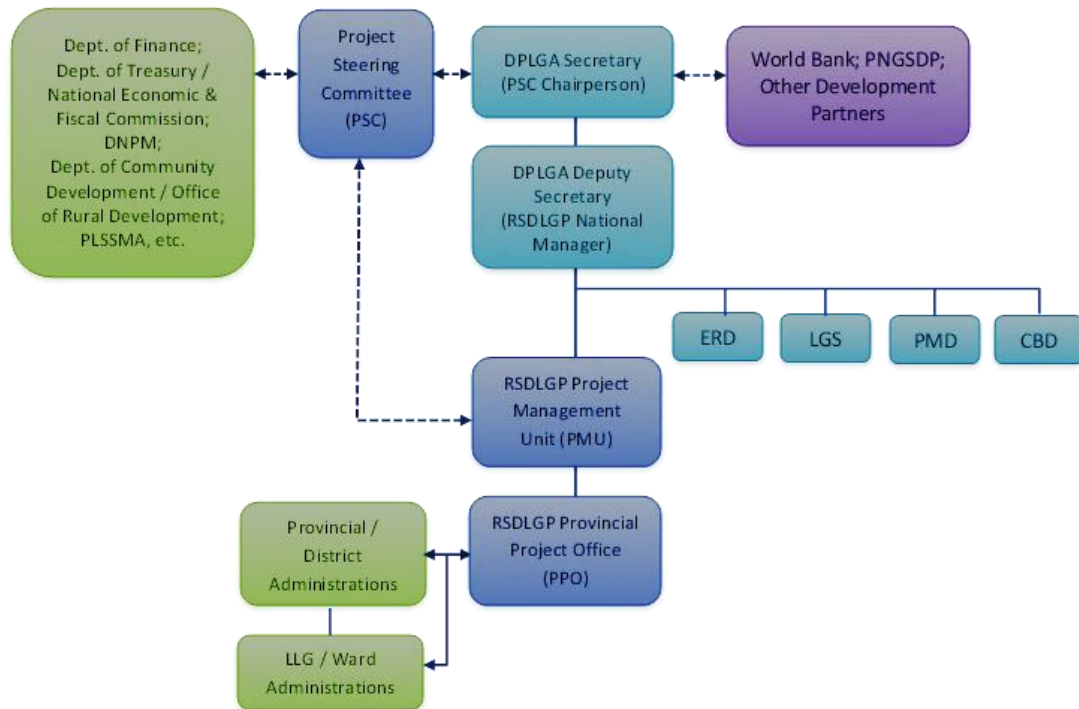
The RSDLGP institutional arrangements are illustrated in Figure 2 on the next page and the roles of the participating bodies are discussed in detail below.

2.1 Role of DPLGA

DPLGA has overall responsibility for: (i) managing the RSDLGP and reporting to donors and Government on its achievements; (ii) staffing and overseeing the work program of the RSDLGP PMU; (iii) financing thru sub-national authorities the Community Grants Fund (CGF) and ensuring that the Fund is implemented in accordance with approved procedures; (iv) monitoring and evaluating the performance of the CGF and RSDLGP in general; (v) mobilizing relevant sections within DPLGA, including the Local Government Services, Capacity Building Division, Performance Monitoring Division, and the External Relations Division, to provide support to RSDLGP implementation; and (vi) coordinating RSDLGP policy concerns with the World Bank, PNGSDP and other development partners. The DPLGA Secretary shall chair the RSDLGP Project Steering Committee, but the DPLGA Deputy Secretary shall be responsible for day-to-day project oversight and supervision of the Project Manager. The Project Manager will be hired as a project consultant.

¹ The PEC is likely to be the Provincial engineer, but could vary depending on workload and interest at provincial level to oversee safeguards issues.

Figure 3: RSDGLP Institutional Arrangement



2.2 Role of Other Government Agencies

Other government agencies with mandates relevant to the pilot project shall participate in RSDLGP implementation through the Project Steering Committee (PSC). Among the agencies represented in the Steering Committee are: (i) the Department of Finance regarding funds flow arrangements; (ii) the Department of Treasury and the National Economic and Fiscal Commission regarding the monitoring of fiscal transfers to LLGs; (iii) DNPM regarding integration of Ward and LLG development plans to national planning processes; (iv) the Office of Rural Development, and others, in coordinating with other possible sources of funds at the district level. Other agencies may be invited into Steering Committee as deemed necessary by RSDLGP.

2.3 Role of the RSDLGP Project Management Unit

The day-to-day operation of the project shall be managed by the RSDLGP Project Management Unit (PMU) whose office shall be based at DPLGA premises and whose Project Manager shall report directly to a DPLGA Deputy Secretary acting as the National Project Manager. The PMU shall have a Provincial Project Office (PPO) in each pilot province headed by the Provincial LLG Advisor acting as the RSDLGP Provincial Project Coordinator. The PPO shall closely coordinate all its operational activities with the concerned provincial, district, LLG, and ward administrations.

2.4 Role of Provincial and District Government

Implementation of RSDLGP shall be closely coordinated with the concerned provincial and district government offices whose main functions in the project are to: (i) designate the Provincial LLG Advisor and the Provincial Project Coordinator for RSDLGP; (ii) provide technical and financial support to the local development planning processes, particularly the ward profiling and development planning, and ensure that these are incorporated into the district and provincial development plans; (iii) provide counterpart funding contributions to RSDLGP community projects and/or link such projects to potential funding sources such as DSIP, District Support Grants, OTML, etc.; (iv) provide technical support and/or link RSDLGP communities with relevant technical agencies such as the Department of Public Works for building plans and permits, the Provincial Planning Office for planning tools and instruments (e.g. maps, access to databases, etc.), and similar agencies; (v) provide logistical support to RSDLGP wards in materials canvassing, procurement and transport; and (vi) provide office space and other logistical support to the RSDLGP PMU at provincial level.

2.5 Role of Local Level Governments

The participating Local Level Governments (LLGs) in the 2 pilot provinces shall be the focal points for determining the pilot wards and sub-projects within the LLG and for mobilizing funds and other resources for the approved sub-projects. Specifically, the LLGs shall: (i) work closely with DPLGA and the RSDLGP PMU in determining target wards; (ii) spearhead the regular conduct of ward profiling and ward development planning among all the wards and ensure that the plans are integrated into the LLG development plans; (iii) provide counterpart funds and mobilize other resources for RSDLGP sub-projects; (iv) manage and be accountable for the funds received in the LLG account from the RSDLGP Community Grant Fund (CGF) which will be transferred to the individual accounts of concerned wards in accordance to RSDLGP policies and the approved sub-project financing arrangements; (v) support the Ward Development Committees (WDCs) in canvassing and procurement of materials and supplies for RSDLGP sub-projects; and (vi) regularly monitor implementation of RSDLGP-funded sub-projects.

2.6 Role of the Ward Development Committees

The roles of the Ward Development Committees (WDCs) of wards determined to be eligible for RSDLGP support based on these methods are to: (i) undertake regular ward development planning processes as mandated by law; (ii) develop proposals that support the latest WDP; (iii) designate the Ward Recorder as the RSDLGP Community Facilitator (CF) and pay for his/her compensation from the regular ward budget; (iv) provide counterpart funds and mobilize additional resources for approved projects; (v) implement sub-projects in accordance to the approved work and financial plan; (vi) disburse RSDLGP funds in accordance to RSDLGP policies and the approved work and financial plan; and (vii) monitor implementation and submit regular reports on the project.

2.7 Role of the World Bank

The World Bank administers financing for the RSDLGP through grant agreements and other financing instruments that are entered into between the World Bank and the Government of Papua New Guinea. These financing agreements also indicate that the World Bank would provide support to the Government in the implementation of the RSDLGP and specifically undertake together with Government at least semi-annual missions to review the implementation progress under the project and to provide advice on ways to enhance implementation performance.

2.8 Role of PNGSDP

PNGSDP Ltd. co-finances the RSDLGP through a grant of US\$3.82 million and will participate in regular supervision missions along with the World Bank to provide guidance and support to DPLGA. In addition, PNGSDP Ltd. field office in Kiunga has and would continue to provide discrete assistance to the project team in areas relevant to its own operations in Western Province.

3. PILOT AREAS

RSDLGP shall be pilot-tested initially in limited areas for three years and would later be scaled-up depending on the results of the pilot-testing. For the purpose of the pilot, two provinces and eight LLGs have been identified and agreed to between provincial authorities, DPLGA and the World Bank. These pilot sites are:

1. Western Province, Kiunga Rural, Lake Murray, Kiwai and Oriomo-Bituri LLGs; and
2. Central Province, Cloudy Bay, Rigo Inland, Kairuku and Tapini LLGs

Within participating LLGs, two methods for selecting wards for support will be tested: (i) Need-Based Selection; and (ii) Open Competition.

A Need-Based Selection Method shall be used to determine and select the neediest wards in the entire four pilot LLGs in Western Province. The method shall make use of an instrument agreed among DPGLA, the World Bank and PNGSDP to rank the wards in each pilot LLG according to critical factors such as level of development needs, population density, accessibility, and the ward's track record in managing development assistance (including willingness to contribute and mobilize complementary resources, community participation in projects, security/peace and order, etc.). The existence of Community Mine Continuation Agreements in many of the wards of Western province also argues for pre-selection of wards that have access to less development resources. Empirical data such as the most recent and accurate ward profiles shall also be used as one of the major basis for ranking the wards.

The Open Competition Method will be pilot-tested in Central Province. The method allows all wards in pilot LLGs to submit sub-project proposals for consideration by the LLG. The LLG will award a limited number of proposals (between 6 and 8 per cycle) for RSDLGP support.

4. RELEVANT LEGAL AND REGULATORY FRAMEWORK FOR ENVIRONMENTAL AND SOCIAL SAFEGUARDS

The relevant environmental safeguard policies to be applied to the RSDLGP are based on the Department of Environment and Conservation (DEC) environment management guidelines or laws including the requirements for Environmental Assessment of impact development projects and the World Bank. The provisions for strengthening environmental management in Papua New Guinea are enshrined in the National Constitution and the relevant Environmental Regulations such as Environment Act 2000, Land Act, Mining Act, Gas and Petroleum Act, Water Resources Act, Protection (Fauna) Act and others. The communities which propose sub-projects, and the provincial governments and DPLGA that oversee the implementation of the RSDLGP, are required to observe various acts while compliance monitoring is provided by the related government departments and statutory agencies.

4.1 PNG Legislation, Regulations and Policies

Development activities affecting the people and the environment must take account of relevant guiding principles or laws. The constitution of the country sets the foundation and accompanying acts must be closely observed in order to attain sustainable positive benefits. PNG has vital laws that address the environmental aspects of development directly or indirectly. The laws, Acts and policies most relevant to the proposed rural projects are briefly discussed below. A more detailed discussion of related laws, policies and customs is contained in Annex 1.

The Papua New Guinea Department of Environment and Conservation (DEC) is the national agency responsible for the development and implementation of the Government's environmental sustainability policies and programs. DEC is responsible for environment regulation for all the major industry sectors in the country, management of water resources, and for conservation of bio-diversity in compliance with national legislation and international conventions. DEC's specific responsibilities regarding environmental protection are derived from the Environment Act of 2000 and regarding conservation from the Conservation Areas Act of 1978, and related legislation. DEC has undergone a regulatory reform process in line with other public sector reforms and institutional structure for environmental management has changed. DEC has key strategic directions opting to move away from a central management to a national, provincial and community oriented management system (DEC, 1996). DEC provides the environmental regulatory framework and monitors compliance by the various developers working in the country.

4.1.1 Papua New Guinea Environmental Legislation

The environmental regulations of the Government of PNG are derived from the Environment Act of 2000. The Environment Act incorporates three previous Acts; Environmental Planning Act (1978), Environmental Contaminants Act 1982, and the Water Resources Act 1982.

The Environment Regulation of 2002 (Prescribed Activities) requires project proponents to identify, ex ante, the likely nature and magnitude of environmental and social impacts of development projects, and to identify and implement mitigation strategies to address and reduce these impacts. The regulation categorizes projects into three streams or levels, as described below.

- **Level 1 activities:** those that require a minimum level of environmental protection. Regulation of such activities will be based on standards, codes and regulations that set benchmarks for environmentally acceptable activities. For example, maximum discharge levels, ambient quality standards for receiving environment, codes of practice, guidelines for best/acceptable practice. In cases of non-compliance, environmental protection orders, clean-up orders and emergency directions may be issued.
- **Level 2 activities:** those that require a framework of environmental approvals allowing for water discharge permits, or licensing for importation, sale and use of environmental contaminants (hazardous chemicals) and for site-specific environmental conditions to be set for these activities which have more significant potential impacts. Level two activities will be regulated by means of conditions in environmental permits, environmental improvement plans and environmental management programs.
- **Level 3 activities:** those with the potential of major environmental impact and are projects of national significance or of large scale. Such activities will be subject to a process of public and detailed considerations of environmental implication through the Environmental Impact Assessment process.

Each stream implies a different approach to environmental assessment, as outlined in Figure 3 on the following page.

In general, The PNG EIA process follows the following steps:

* **Registering a development activity:** The proponent of an activity/project is required to register the activity or project with the DEC. **This will be done by DPLGA through the submission of the Project Paper and this ESMF.**

* **Screening and Decision Making:** The project is classified to determine the level at which the environmental assessment should be carried out. If the project does not have any significant impact on the environment then the activity falls under Level 1 and will be approved and subject to the guidelines, regulations, standards or code of best practice. If the project falls under Level 2 or Level 3 then the EIA process will continue.²

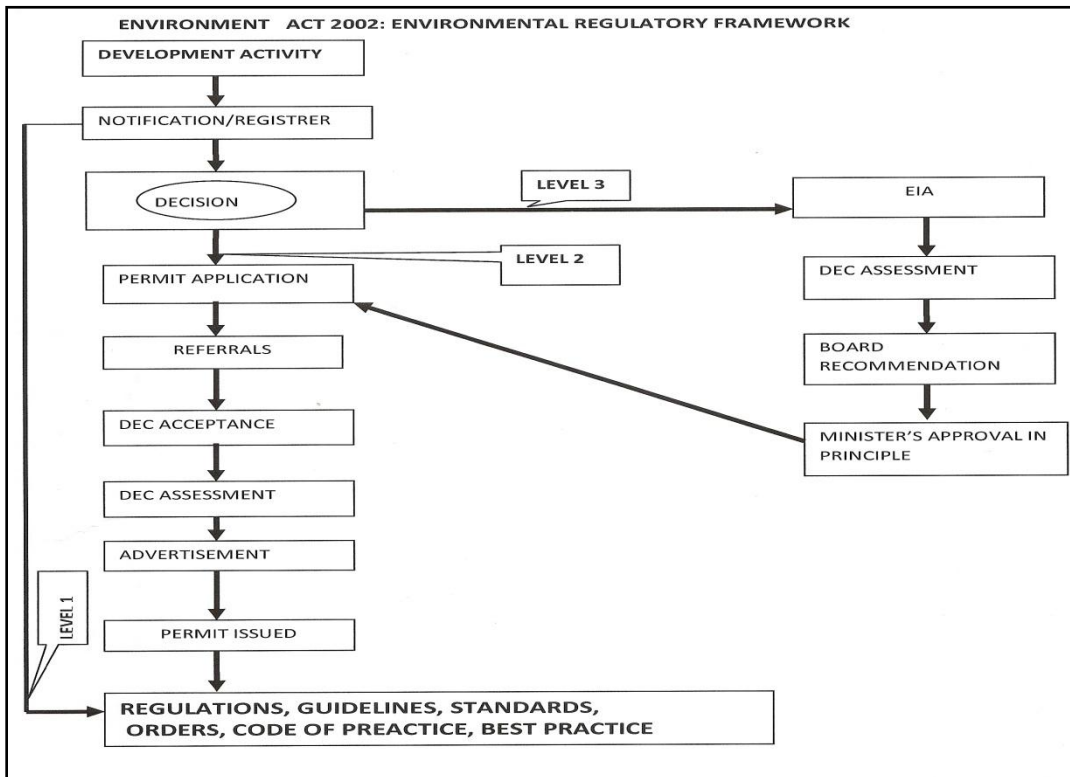
* **Conducting an EIA:** This involves the three main stages of the EIA process (scoping, preparing terms of reference and preparing a Notification of Preparatory Work). By

² It is assumed that all RSDLGP activities will be classified as level 1 activities and therefore not require an EIA. In the event that an activity would qualify a sub-project as level 2 or higher, the sub-project would either need to be redesigned or it would be ineligible for financing under the RSDLGP.

submitting a notification of the preparatory work, projects can be further screened and then decisions made. Level 2 activities will be assessed and then approval through an appropriate Permit. For Level 3, a full EIA will need to be conducted. Public consultation and participation is required during the scoping stages and while fulfilling the terms of reference for the impact assessment of the EIA process.

A number of documents are submitted to DEC for the Level 3 project with firstly an Environmental Inception Report. This is assessed and feedbacks made to the proponent to adjust or expand on the EIA process. This is then followed through with the full project EIA. Guidelines for the Environmental Inception Report and the Environmental Impact Statement (EIS) are provided by DEC.

Figure 3 Environmental Assessment Process in PNG



* **Reviewing the EIA:** An Environment Council established by the DEC reviews the EIA and decides whether the EIA is acceptable or not.

* **Issuing the relevant permits:** If the EIS is approved, the DEC issues the necessary environmental permit that confirms the EIS has been satisfactorily completed and the project may proceed.

* **Decision-making:** A decision is made as to whether a proposal is approved or not; a record of decision explains how environmental issues were taken into consideration.

* **Monitoring project implementation:** The operator prepares and executes an appropriate monitoring program (i.e. an environmental management program). To fulfill this requirement, DPLGA would submit to DEC its quarterly progress report that will include a section on environmental and social safeguards issues and will share with DEC at Provincial level lists of sub-project activities within the given provinces for DEC review. DEC undertakes periodic and independent compliance monitoring of the project (and sub-projects). It will provide a report which will be given back to the operator (DPLGA) for discussions and amendment to its operation, should there be an environmental concern.

* **Decommissioning the project upon its completion:** A decommissioning report is prepared at the end of the project life. This report outlines the restoration/rehabilitation activities to be carried out by the operator and is lodged with the DEC. At the moment in PNG, only mines have followed the process of decommissioning completed projects. In the other sectors, reporting has not been consistent.

Projects that are likely to have significant adverse environmental impact (Level 2 and Level 3) are required to obtain an Environmental Permit (EP) from the DEC following the relevant environmental assessment.

4.1.2 Relevant International Regulations and Environmental Obligations

The International Conventions and treaties on environmental issues to which PNG is a party and has an obligation, and would be relevant to the RSDLGP, include:

i. Convention on Biological Diversity (1992) – the convention aims at conservation of Biological Diversity, Sustainable use of Biodiversity components and the equitable sharing of benefits arising out of the utilization of natural resources. The signatories to the convention are required to develop a National Strategies for the Conservation and Sustainable use of biological diversity and integrate, as far as possible, these strategic measures into other planning systems and programs.

ii. The Convention on Conservation of Nature in the South Pacific (APIA Convention) –The objective of this convention is to take action for conservation, utilization and development of the natural resources of the South Pacific region through careful planning and management for the benefit of both the present and the future generations.

iv. UNESCO World Heritage Convention (1972) – this convention is aimed at ensuring that the national governments provide effective and active measures for the protection, conservation and presentation of the cultural and natural heritage situated on its territory. The signatories to the convention are required to adopt a general policy which aims to give the cultural and natural heritage a function in the life of the community and to integrate the protection of that heritage into comprehensive planning programs. Given the

demand driven nature of the project it is unlikely that cultural heritage would be adversely impacted by the project, however, to ensure that this is the case the environmental screening and assessment processes will check to ensure that this remains the case.

4.2 World Bank Environmental and Social Safeguard Policies

In this section, the Bank's safeguards policies and their applicability for RSDGLP are discussed. These policies apply to all activities funded under the project irrespective of whether or not they are being funded in whole or in part by the World Bank and the Government of Papua New Guinea or any other development partner.

4.2.1 Operational Policy (OP) 4.01 Environmental Assessment

OP 4.01 Environmental Assessment requires the conduct of an environmental assessment (EA) of projects/programs proposed for Bank financing to help ensure that they are environmentally and socially sound and sustainable. This is the umbrella policy for the Bank's environmental and social safeguard policies. The EA needs to consider natural and social aspects in an integrated way and take into account the variations in project and country conditions; the findings of country environmental studies; national environmental action plans; the country's overall policy framework, national legislation and institutional capabilities; and obligations of the country pertaining to project activities under relevant international environmental treaties and agreements.

The EA is a process whose breadth, depth, and type of analysis depend on the nature, scale, and potential environmental impact of the project investments/sub projects that the Bank is supporting. The RSDGLP is considered an environmental category B project by the World Bank given the anticipated small-scale, site-specific and temporary/reversible nature of the likely impacts. This current document proposes that Environmental Codes of Practice (ECOPs), contained in Annex 2 be used to identify relevant mitigating measures and good practices relating to different types of sub-projects to be financed. This categorization of the project and the proposed use of ECOPs is fully consistent with the Government own EIA requirements for level 1 project activities.

The RSDGLP would generally have a positive net impact on the environment and social welfare of the target beneficiaries. Project activities under component 1 will involve the rehabilitation, upgrading and maintenance of small rural infrastructure, such as feeder roads, local markets or storage/collection points, or small water supply infrastructure. Individual sub-projects (e.g. rehabilitation or upgrading of village or district level infrastructure) are expected to be small and limited in environmental impact.

Given the fact that sub-project activities under component 1 are not yet identified, the relevant EA instrument for the RSDGLP is the current Environmental and Social Management Framework (ESMF) document. This ESMF provides guidelines to screen and identify eligible and ineligible sub-projects based on the Bank's and Government's environmental and social

safeguard policies and laws, determine specific mitigating measures to reduce or eliminate potential negative impacts (through the application of Environmental Codes of Practice—ECOPs), and identifies responsibilities among the different RSDLGP implementing partners. While the RSDGLP only triggers the application of one other World Bank safeguard policy, OP 4.10 (Indigenous Peoples), the proposed ESMF includes provisions and guidelines on other relevant safeguard policies.

4.2.2 Operational Policy OP/BP 4.36 Forests

The Bank's policy on Forests is not triggered under the RSDLGP. The policy aims to reduce deforestation, enhance the environmental contribution of forested areas, promote afforestation, reduce poverty and encourage economic development.

During separate community consultations, it was noted that extensive wood gathering and cutting for timber in native forests and logging operations is a daily activity, as wood is a main source of fuel and construction material in the villages. There is no evidence of firewood or tree plantations being established. Construction sub-projects would encourage replanting of trees and sub-projects proposing specific logging activities would be ineligible under the project.

4.2.3 Operational Policy OP/BP 4.04 Natural Habitats

The Bank's policy on Natural Habitats is also not triggered. The policy promotes the conservation of natural habitats for long term sustainable development. It supports the protection, maintenance and rehabilitation of natural habitats and it expects the government to apply a precautionary approach to natural resource management. The project will not finance sub-projects located in critical habitats or declared, established or proposed conservation or protected areas, or lead to the conversion or degradation of the same. All locations for potential sub-projects will be carefully screened to ensure that the proposed sub-projects will not be located within or near any Declared Protected Area. For sub-projects located in natural habitats, the project will apply a precautionary approach and prepare the appropriate environmental instrument to determine their potential impacts, if any. For those whose potential impacts are small-scale, temporary and manageable, the necessary mitigation measures will be integrated in the project design and EMSP.

4.2.4 Operational Policy OP/BP 4.11. Physical Cultural Resources

This policy aims at assisting client countries to avoid and mitigate adverse impacts from Bank-assisted projects on physical cultural resources. These include resources of archaeological, paleontological, historical, architectural, religious, aesthetic or other cultural significance. Given that all sub-projects would be the result of a participatory and demand-driven process that is managed directly by the communities themselves, it is highly unlikely that any such resources that are known to the community would be adversely impacted by the project. Nonetheless, all

construction activities will include simple mechanisms and agreements to address chance finds.³ Ways to address chance finds are further elaborated in Annex 3, Cultural Property and Protection Measures.

4.2.5 Operational Policy OP/BP 4.09 Pest Management.

The policy seeks to minimize the environmental and health hazards related to pesticide usage. Under RSDLGP, pesticides would be an ineligible expense. In the event that small-scale irrigation infrastructure was financed, the project would monitor how this impacts subsequent farming practices and would promote integrated pest management techniques if called for.

4.2.6 Operational Policy OP/BP 4.37 Safety of Dams

The policy's objective is to assure quality and safety in the design and construction of new dams and the rehabilitation of existing dams, and in carrying out activities that may be affected by the operation of an existing dam. The project does not expect to finance water-impounding reservoirs or small dams, and if requested by a community would be restricted to less than 5 meters in height. Technical guidelines for sub-projects that may require the construction or rely on existing dam structures are outlined in the ECOPs presented in Annex 2.

4.2.7 Operational Policy OP/BP 4.10 Indigenous Peoples

OP 4.10 on Indigenous Peoples (IPs) is triggered under the project. However, as the majority of the project beneficiaries are IPs, no IP Plan or Policy Framework is required as relevant policy requirements have been integrated directly into the project design. The potential adverse impacts of the project are limited and no land acquisition or resettlement is foreseen, nor will the project have any impacts on the use of any natural resources. As required by the policy, (i) a social assessment commensurate to potential social issues has been undertaken (and will be disclosed); (ii) free, prior and informed consultation resulting in broad community support will be undertaken before any sub-project investment is made at community level; and (iii) particular attention has been given to ensure that mitigation measures and project benefits are culturally appropriate.

4.2.8 Operational Policy OP/BP 4.12 Involuntary Resettlement

OP 4.12 seeks to restrict the involuntary taking of land or any form of economic displacement of populations affected by or participating in World Bank financed activities. In the event that alternative project sites or strategies cannot be found, the OP requires that any persons affected by project activities, regardless of the legality of their land tenure, should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them to pre-displacement levels. Under the RSDLGP, OP 4.12 has not been triggered as involuntary resettlement would not be allowed. Land acquisition, if any, would be done on a voluntary basis through the use of a "clan land use agreement" (CLUA), which is commonly used in PNG to

³ A chance find is the unanticipated discovery, in the course of a project activity, of an artifact of cultural value. When such a discovery is made it is essential that appropriate procedures be followed to avoid or mitigate damage to physical cultural resources.

grant access to and use of customarily owned land. A sample agreement is included as Annex 4. The community process used in PNG to enter into such a land use agreements is outlined in Section 5.2.2 below.

Other social and safeguard issues such as relating to gender, community health and safety, etc., are also catered for under this ESMF through the ECOPs and operational procedures of the RSDGLP.

Table 1 summarizes the applicability of the WB safeguard policies to the RSDGLP.

Table 1: World Bank Environmental and Social Safeguard Policies triggered by RSDGLP

WB Safeguard Policy	Triggered	Comments
Environment Assessment (OP/BP 4.01)	Yes	The proposed project is classified as category B project, since the proposed activities are likely to cause only low level and non-permanent adverse impacts
Natural Habitats (OP/BP 4.04)	No	The proposed project is unlikely to significantly affect any natural habitat, including the protected areas. Any unavoidable activities in such locations will require prior approval and detailed Environmental Assessment to identify possible suitable sites.
Pest Management (OP 4.09)	No	Proposed project and associated activities would not involve the use of pesticides.
Physical Cultural Resources (OP/BP 4.11)	No	Given the small-scale and demand-driven nature of the project, it is very unlikely that such resources would be affected. However, the sub-project prioritization process will identify any physical cultural resources and chance find procedures would be included in community and any contractor agreements (see Annex 3)
Involuntary Resettlement (OP/BP 4.12)	No	The project will not allow any involuntary resettlement and the use of land for sub-project purposes will be on a voluntary basis only, and documented through the use of a “Clan Land Usage Agreement”. A template for such an Agreement is provided as Annex 4.
Indigenous Peoples (OP/BP 4.10)	Yes	As the majority of the project beneficiaries are Indigenous Peoples, no Indigenous Peoples Policy Framework (IPPF) is needed and policy requirements have been directly integrated into project design and documented in the Project Appraisal Document.
Forests (OP/BP 4.36)	No	The project will not affect the forests and associated resources. If any, impacts will be marginal, insignificantly temporary and limited to specific sites of small-scale construction work.
Safety of Dams (OP/BP 4.37)	No	The proposed project does not involve development of dams. Guidance on the potential construction of

		small-scale, micro-hydropower facilities will be provided in the ECoPs.
Projects in Disputed Areas (OP/BP 7.60)	No	There are no disputes over international land boundaries.
Projects on International Waterways (OP/BP 7.50)	No	The proposed project and its activities do not involve International Waterways. The project will be limited to PNG's political boundary.

5 ENVIRONMENTAL AND SOCIAL SAFEGUARDS PROCESSING GUIDELINES

This chapter sets out to establish the process to be undertaken in the screening and scoping of RSDLGP activities when they are identified and implemented. This process requires that the PMU, the province, LLGs, district, WDCs, NGOs, village officials and sub-project proponents use the procedures contained in the ESMF to identify potential adverse impacts of their activities under the project and determine the corresponding mitigation measures they would need to incorporate into their planned activities. Table 2 shows the applicable safeguard instruments to fulfil the requirements of the WB safeguard policies.

5.1 Relationship between GoPNG and WB safeguard requirements

The project will not fund physical activities that will cause significant environmental degradation. Component 1 is mainly composed of small-scale community infrastructure, technical assistance and capacity building, and enhancement of sustainable service delivery systems. Because of their nature and scale, these activities are generally considered Level 1 activities under the Government's (DEC's) environmental classification. However certain activities commonly associated with improvement of works, such as drain cleaning that allows surface water discharge into storm water and water courses, are considered Level 2 activities that may require an environmental permit depending on the duration and scale of the activity. Therefore, to ensure compliance with the government's environmental assessment requirements, DPLGA will disclose to DEC a list of sub-projects, including screening checklists and proposed mitigation measures, so that DEC can decide whether any specific environmental requirements will be needed for the proposed routine maintenance activities.

5.2 Guidelines for Environmental and Social Screening and Development of Relevant Safeguard Instruments

The table below outlines the actions to be taken and the specific documents to be prepared as part of the safeguards review process, as well as the responsibility for these actions. The safeguards process is shown in parallel with the sub-project planning and implementation process for RSDLGP.

Table 2: RSDLGP Safeguard Review and Implementation Steps and Documents

Sub-project Process	Safeguard Review and Implementation Steps	Responsibility for
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		Safeguard Actions
1. Community orientation and training	(a) Orient community members on safeguards and requirements, and on ineligible activities or sub-projects that are contrary to safeguards	Community Facilitators (CFs)
2. Prioritization of sub-project by communities/wards	(b) Safeguard screening to confirm sub-project eligibility (screen out activities on sub-project negative list)	CF and Ward Development Committee (WDC)
3. Sub-Project Proposal Preparation	(c) Preparation of Social and Environmental Safeguards Checklist (including use of ECOPs to identify mitigating measures) (d) Processing and preparation of a “ Clan Land Use Agreement ”(CLUA) if necessary	CF and WDC
4. Appraisal of sub-project by LLG	(e) Review and confirm identified risks and mitigating actions; (f) prepare (and disclose) sub-project environmental and social management plan (ESMP) and disclose CLUA if required; (g) ensure resources to implement ESMP are included in project financial plan; (h) register sub-projects with Dept of Environment and Conservation (DEC)	Assigned specialist from the PPO for the review and disclosure; Engineer for ensuring resources to implement ESMP; DPA to notify DEC
5. Implement sub-project	(i) Monitor and report on implementation of ESMP actions	Environment Champion (ward); PPO Engineer
6. Completion of sub-project	(j) Audit application of safeguards	Independent specialist /consultant from PMU

5.2.1 Initial Screening for Ineligible Sub-project Activities

In conformity with the National and World Bank environmental and social safeguards, the following types of activities or sub-projects would be **ineligible** for support under the RSDLGP:⁴

- (a) Any activity or sub-project that could have a potentially adverse impact on a critical natural habitat (including conservation areas and other sensitive environments in the project area) as defined by the World Bank and the DEC
- (b) Any activity or sub-project involving significant conversion or degradation of critical forests as advised by the Department of Forests;
- (c) The purchase of pesticides, herbicides, insecticides, materials with unbounded asbestos fibres or any other potentially dangerous materials;
- (d) Any activity or sub-project involving the construction or repair of a dam that is higher than 5 meters;

⁴ The Project Operations Manual would include any additional activities or sub-projects on the overall negative list and therefore ineligible for project financing.

- (e) Any activity or sub-project that would adversely affect a site that has historic, cultural, archaeological, religious or unique natural value;
- (f) Any activity or sub-project supporting marine or coastal fishing, such as large-scale pelagic drift net fishing, that would be harmful to vulnerable and protected species in large numbers and damaging to marine biodiversity and habitats;
- (g) Any activity or sub-project to be sited on land for which the ownership is disputed;
- (h) The purchase of or compensation for any land or assets on land that would be used for the project or sub-project.

As the **first step** in the ESMF process for RSDLGP, the Community Facilitators would discuss the “**negative**” list with communities at the time of initial orientation and training so that the subsequent work of communities to analyze their local development problems and identify possible sub-project concepts would take these ineligible activities into account.

As a **second step** in the process, the CFs and the Ward Development Committee (WDC) members would confirm that the proposed sub-project profiles are consistent with these guidelines and that no sub-project proposed is considered ineligible from a safeguards perspective. In the event of any uncertainties (e.g., not certain how close a proposed sub-project may be to a water source or sensitive natural habitat) the CF and/or WDC members would visit the proposed site and, if necessary, seek guidance from relevant specialists (Dept. of Forestry, etc.).

5.2.2 Social and Environmental Screening and Management Planning

The **third step** of the process involves CFs and WDCs reviewing prioritized sub-project proposals which have been prepared by the communities and preparing the **Environmental and Social Safeguards Checklist (ESSC; Annex 5)** prior to submission to the LLGs. This checklist would guide the CF as to what the mitigation measures/actions required for the proposed sub-project, and would draw on the standard guidelines shown in the **Environmental Codes of Practice (ECOPs; Annex 2)**.

Once ineligible sub-projects have been identified and screened out of consideration (under step two), the ESSC is used to identify specific areas of risk and related mitigating measures for the generally temporary and reversible effects of sub-project site selection and construction. The ESSC considers effects on the physical (including land and water), biological and socio-economic environments of the sub-project. The Checklist is designed to link an identified area of risk with specific actions that may be appropriate in the given context of the proposed sub-project. The CF and WDC would fill out the ESSC and use it to work with communities to identify appropriate mitigating actions or alternative sub-project sites if necessary. The filled-in ESSC would be required as part of the sub-project proposal submission to the LLG Assembly for sub-project review and approval.

The project will not support activities that involve involuntary relocation, nor will it provide compensation for any land or assets on land required for a sub-project. Therefore, in the event that land is required as part of a sub-project proposal, a “**Clan Land Use Agreement**” (CLUA) must be entered into between the clan that owns the land and the other representatives (clans and

traditional leader) of the community. A form of a CLUA currently applied in PNG is presented in Annex 4. If necessary, a duly completed CLUA must accompany a community sub-project proposal to be considered for approval by the LLG.

Based on discussions during the preparation process with community groups, local level government representatives, provincial authorities and the team that prepared the Social Assessment, the process that would be used under RSDLGP to enter into the CLUA is as follows:

- If land is required for the identified community sub-project then the clan leaders of the community, along with other community leaders as appropriate ⁵(chief, religious leaders, etc.) would organize a meeting with the representatives of the specific clan who have customary ownership of the proposed land;
- The meeting would discuss the proposed sub-project with the land owning clan (in the event the clan had not participated in the community meetings to prioritize the sub-project) to share the rationale for the sub-project and its proposed siting, and seek the donation of the necessary land by the owning clan;
- At the same time, the owning clan would also be notified clearly that their agreement to donating their land should be completely voluntary;
- If the owning clan agrees, then a CLUA will be entered into between the clan, the other clans and the leader of the community;
- The signed CLUA will be submitted as part of the sub-project proposal.

The CLUA is also generally submitted to the local magistrate (Commissioner of Oaths) for certification.

The **fourth step** of the ESMF process involves the Provincial engineer or other assigned specialist who will: (i) review the SESC for each sub-project proposal to ensure it meets with project requirements and has properly identified the most likely risks and provided for relevant mitigating actions, and (ii) prepare a simplified **Environmental and Social Management Plan (ESMP; Annex 6)** that would be attached to the Sub-project Grant Agreement signed between the Ward, the LLG and DPLGA. Once the ESMP is agreed upon, it would be disclosed locally (at the LLG administrative offices and in the most logical site for similar public documents in the community/ward). Similarly, if a CLUA is required it would also be disclosed at the LLG offices and publically in the community/ward.

Figure 4 on the following page shows how the ESSC would be applied in the development of the sub-project ESMP.

Once sub-projects have been approved by the LLC, the PPO would ensure that a list of the same is registered with the Department of Environment and Conservation at the provincial level.

5.2.3 Safeguards Monitoring and Audit

⁵ The RSDLGP Social Assessment found that the church plays an important role in discussions around land allocation in Central Provinces

Step five of the ESMF process would involve the monitoring of the application of the mitigating measures identified in the ESMP for each sub-project. An Environmental Champion (EC) would be nominated by communities to ensure that the basic mitigation measures agreed to are implemented by the construction teams or contractors (when called for). The ESMP form is designed in a way to facilitate such monitoring and allow for the recording of observations by the EC. This form would remain in the community and the CF and Provincial engineer would periodically review the monitoring effort and ensure that the mitigation measures are being applied in a technical appropriate manner.

Step six would involve an independent audit of the application of all relevant safeguards measures to a randomly selected number of sub-projects. This audit would be managed by DPLGA PMU in accordance with TORs agreed upon with the World Bank

Table 4 on the subsequent pages provides guidance as to which environmental and social aspects are most likely to be affected by different types (and phases) of sub-project activities, and estimates the likely magnitude of that impact.

Figure 4: Illustration of how ESSC informs ESMP

Environmental and Social Safeguards Checklist

#	a. Impacts on Landscapes, Soils, Slope Stability, Plants and Animals	Yes / No		Level of Disturbance*			Action #	Actions the Sub-Project will carry out to prevent negative impacts
		Y	N	Low (L)	HIGH (H)	Unknown (U)		
01.	Will any vegetation including trees and forests be removed due to planned construction at subproject site?	Y	N	L	H	U	0101	not to cut or remove too many trees or plants.
							0102	not to build in rainforest, wetland and other critical habitats.
							0103	to re-plant trees immediately after construction especially those that provide sources of food.
							0104	to certify that subproject site is not a private food garden.
02.	Will planned construction of subproject leave soil surface bare?	Y	N	L	H	U	0201	to re-plant trees and other vegetation immediately after construction.
							0202	not to cut or remove too many trees or plants.
							0203	to re-plant trees immediately after construction especially those that provide sources of food.
03.	Is it possible for remains of construction works [i.e. Leftover gravel and cement mixture] entering nearby streams like rivers?	Y	N	L	H	U	0301	to re-plant trees and other vegetation immediately after construction.
							0302	to limit volume of construction works [i.e. mixing of gravel and cement] so that sediments will not enter streams like rivers.
							0303	to confine construction site with trench or bund (mound) to avoid surface runoffs from entering surrounding environments.
							0304	not to discharge water in slopping areas.



Environmental and Social Management Plan

Type of Sub Project	Potential Environmental Impacts	Mitigating measures	Date to be accomplished
Extension of primary school	<input type="checkbox"/> Cutting of trees and vegetation in and around construction site <input type="checkbox"/> Construction debris and waste could enter stream near school, leading to river	<input type="checkbox"/> Replant trees and bushes immediately after construction (using local varieties & engage students)	At conclusion of construction (Dec 2013)
		<input type="checkbox"/> build trench around construction site to reduce run-off from bare ground	Sept 2013
		<input type="checkbox"/> pile construction waste (especially cement bags) at least 50 m. from stream; cover with tarp;	Sept-Nov 2013
		<input type="checkbox"/> remove waste (metal, cement bags, etc.) from community once construction completed	Nov-Dec 2013
		<input type="checkbox"/> dispose of natural debris in area away from community and water sources	Sept-Nov 2013
	<input type="checkbox"/> ...	<input type="checkbox"/> ...	

Table 4: Environmental Screening Matrix

Environmental Aspects	Impacts of sample sub-projects					
	Siting/ Construction of Resource Center / Aid post / Health clinic	Road repairs and Foot Path track Maintenance	Siting/ Construction of Water supply / water tanks	Siting/ Construction Sanitation facilities	Siting/ Construction community-based saw mill/ rice mill	Siting/ Construction Market stalls/ food shops/baker
Physical						
Soil Erosion/Contamination	0	0	-1	0	-1	-1
Air Quality and Odor	N	N	N	-1	-1	-1
Surface Water Quality	0	0	0	-1	-1	-1
Groundwater Quality	N	N	N	-1	N	N
Water Availability and Consumption	N	N	N	N	N	N
Noise and Vibration	N	N	N	N	-1	N
Aesthetic Value	N	N	N	N	N	N
Wastes Generation	0	N	N	-1	-1	-1
Biological						
Natural Vegetation	0	N	0	0	0	0
Wildlife	N	N	N	N	N	N
Agriculture	N	N	N	N	N	N
Social and Economic						
Land Acquisition	0	N	0	N	-1	-1
Sites of Archeological, Historical or Cultural Significance	N	N	0	N	-1	0
Blocked Access	N	N	-1	N	-1	0
Safety Hazard	0	N	-1	N	-1	-1
Infrastructure	N	N	-1	+2	-1	N
Employment / Earning Opportunities	+1	+1	+1	N	+1	+2
Public Health (Clean Water and Sanitation)	+2	N	+2	+2	N	N
Gender Issues	+2	+1	+1	-2	+1	+2
Key: Impact Levels						
-2 High Negative Impacts, -1 Low Negative Impacts, 0 No Insignificant/Negligible Impact, +1 Low Positive Impact, +2 High Positive Impact, N No Impact						

6 INSTITUTIONAL ARRANGEMENTS IN ENVIRONMENTAL AND SOCIAL SAFEGUARDS IMPLEMENTATION AND MONITORING

DPGLA/PMU and the PPOs (with specialized recruited staff and consultants) will provide oversight in reviewing the environmental process and documentation for the subprojects to ensure that the ESMF process is properly followed and implemented. Training and capacity building will be provided to community project teams to ensure application of mitigation measures, and to the technical staff of the DPGLA PMU and Provincial PPO (engineers).

Compliance with the ESMF will be made a contractual requirement for communities and any contractors engaged for the proposed sub-project activities. Sub-project Grant Agreements between communities and DPLGA would reference the application of the ESMF and bind any implementing partner (communities or their contractors) to implement mitigation measures as identified in the specific ESMP for each sub-project.

Table 5: Environmental and Social Safeguards Roles and Responsibilities of Implementing Agencies and Personnel

Organization and Individual Staff	Roles and Responsibilities
DPGLA PMU and Provincial Project Offices (PPO)	Overall responsibility to ensure that the ESMF is implemented as described and for the overall environmental performance of the project
	Develop training modules and conduct relevant training for PPO staff, LLGs, WDCs, CFs and community project teams
	Prepare/update simple guidelines for communities to comply with safeguard requirements such as simplified checklists as environmental and social instruments
	Regularly monitor construction activities and assess compliance reports submitted by communities
	Ensure that the environmental and social considerations for the sub-project siting and design are adequately adhered to
	Ensure that relevant sub-project safeguard instruments (ESMP, CLUA) are publically disclosed are called for in ESMF
	Periodically report on compliance with ESMF requirements (to Government, World Bank and other development partners)
LLGs, WDCs, CFs	Assist PMU/PPO in facilitating, promoting and monitoring the project activities
	Ensure communities prepare sub-project environmental and social safeguards documentation in accordance with ESMF as part of sub-project appraisal process
	Mobilize community members to participate in the sub-project selection and screening process to identify mitigating measures
	Review regular compliance with safeguards instruments (checklist, ESMP and CLUA)
	Disclose sub-project safeguard instruments (ESMP, CLUA)

<p>Sub-project proponents (communities), and Environmental champions (ECs)</p>	Identify mitigating measures and ensure that adequate financing is provided for under sub-project costs
	Implement the ESMP during construction and operation activities
	Prepare environmental checklists
	Provide feedback to LLG and PPO on the effectiveness of the checklists and ESMF
	Attend trainings and workshops as part of continuing education and capacity building on environmental management
<p>Independent consultants (Environmental monitors) and process monitoring group</p>	Undertake safeguards monitoring and audit activities
	Prepare and present reports for PPOs, PMU, World Bank and other development partner review.
<p>Community beneficiaries</p>	Ensure on-going maintenance of investments to protect against any environmental or social safeguards concerns

7 PUBLIC CONSULTATION, PARTICIPATION AND DISCLOSURE

As a community driven development project, consultations and participation of beneficiary groups are core underlying principles and project implementation strategies of the RSDLGP. The specific processes of consultation and participation of, and disclosure to, target beneficiary communities regarding the objectives, strategies and specific areas of investment of the RSDLGP happens in two phases: during overall project preparation and during implementation. To date, during the preparation process, consultations and participation on project design have focused on the overall project principles and operational procedures. This process has taken place in a sample of target communities, and among government partners and civil society representatives (including relevant churches) in the provinces, districts and LLGs in which the project will operate. This level of consultations is considered appropriate given the demand-driven nature of the project and therefore an uncertainty around what types of specific sub-projects that will be financed and in which wards. In addition, at the stage of implementation, as a community driven development project, the RSDLGP will involve a core strategy of consultations and participation of potential beneficiary communities. This process would allow for full engagement of a majority of citizens from a given community to decide on how the project resources can best be used to address the development needs of the community. The project will promote the disclosure of relevant operation procedures, safeguards arrangements, and channels for voicing complaints or grievances at community/ward and LLG levels. Activities would not be undertaken in a given area unless broad community consensus was reached on the type and location of a sub-project.

7.1 Public Consultation

Public consultation and participation ensures project acceptability and fosters good community relationship between the community, community leaders and the sub- project proponents. Information provided will include: the purpose, nature and scale of the project; and the duration of the proposed activities and of any potential impacts on the community. By using a combination of participatory methodologies such as community meetings, focus groups discussions, interviewing individual and field observations that best suit the situation at hand, target groups will be encouraged to share their views about the project. Community group meetings should be held at the beginning of the consultations to introduce the project and get general reaction and feed-back. Smaller group discussions that engage men, women and youth separately would be used to elicit different perspectives on needs and likely responses.

During the project preparation phase, the draft ESMF was presented to key project stakeholders in a series of meetings and Public Consultations to gather comments and suggestions as to its content and process. The consultations were led by the DPLGA and with the participation of key stakeholders from the Papua New Guinea Sustainable Development Program (PNGSDP); the Provincial Governments of the two pilot provinces; target LLGs and other stakeholders including national NGOs involved in environmental and social safeguards issues in the country.

During the project implementation phase, the proposed community consultations and training at the beginning of the sub-project cycle would be responsive to the requirements of the PNG (DEC) EIA that calls for identification of interested parties and opportunity to voice concerns or objections to a proposed activity. The Project Operations Manual describes in detail and provides guidelines for the process of consultation and participation. The RSDLGP would require that notification of such community consultations are made through the most logical local methods (signboards, notification of village elders and clan leaders, etc.) to ensure the broadest level of participation. The Community Facilitator (CF) is responsible for identifying interested and affected parties in the community and ensuring that all parties concerned are given adequate opportunity to participate in the process. The CF would use traditional announcement and public information methods at community level to ensure that all concerned are informed of the sub-project process.

7.2 Public Disclosure

As part of the safeguards disclosure policies of the World Bank, the current Environmental and Social Management Framework document and the Social Assessment (SA) report prepared as part of the preparation process of the RSDLGP will be disclosed in PNG and through the World Bank's Infoshop. Within PNG, the ESMF and the SA documents will be made available through the offices of DPLGA in Port Moresby, the Provincial administrative offices of Western and Central Provinces, the provincial offices of DEC, and in each LLG in which the project will initially be piloted. The availability of these documents will be made known to the generally public through an advertisement to be released in one of the major national newspapers that has wide national circulation.

During implementation, and consistent with the PNG EIA system and the World Bank safeguard policies, the environmental and social safeguard information to be disclosed will include, at a minimum: sub-project information, the Environmental and Social Management Plans

that identify potential impacts and proposed mitigation measures, and safeguard monitoring reports. Local disclosure of information should target, at a minimum, directly affected communities (including project-related workforce, where applicable). Disclosure would be done through community meetings, local postings (in communities and LLGs), posters, booklets, and newspapers announcements. The Provincial Project Office and the DPLGA PMU would also have copies of all sub-project proposals and ESMPs for public review. The World Bank would also make a list of sub-project location and activities available through the Public Information Centre in Port Moresby. Public disclosure of documentation shall be in accordance with the disclosure policies of the PNG government and the World Bank. These documents should be disclosed prior to initiating work under any sub-project.

8 CAPACITY BUILDING

The capacity building for key project staff and other stakeholders will cover the following general and specific topics.

8.1 General Awareness of the environmental and social aspects of the project:

- Understanding, identification and mapping of the various physical, social and economic components of the environment
- Assessment of the importance and value of different environmental and social components and relationships for sustaining natural life and promoting social well-being.
- Identification of (a) existing social structures which the village/community wants to use as a framework for participatory decision-making and any capacity strengthening or modification required. Should the village/community decide that (b) the most effective structure needs to be established alongside existing structures in order to achieve environmentally sustainable sub-projects.
- Identification and design of remedial measures to reduce existing impacts and enhance environmental quality/value, including identifying the resources needed to implement these remedial measures.
- Potential effects of climate change on the local environment and livelihoods

8.2 Capacity Training for Provincial and Local Governments and Ward Development Committees

To improve the success of the community development component of the RSDLP, attention will be given to capacity building of Provincial Project Office and Ward Development Committees. The training will include but not be limited by the following:

- Training programmes for project staff at the PMU, PPO, LLGs and Wards on the environmental and social aspects of the project concepts and processes, roles and responsibilities, participatory planning in implementing and monitoring compliance of sub-projects to the ESMF.
- Training on the need for inclusion of women, the poor and other vulnerable groups in awareness, planning and decision making processes for environmental, social and health issues.

- Awareness programs for village members and (more detailed training) for WDCs. Developing the management and organizational capacity of the PMU and the village and WDC, PPO representatives on specific training needs to co-ordinate and manage community projects, conduct community needs assessment and participatory approaches to community development, inventories and sketch mapping, participatory action planning and village development

ANNEX 1: DISCUSISON OF RELEVANT LAWS, POLICIES AND CUSTOMS THAT MAY AFFECT THE RSDLGP

Regarding Freedom of Movement, Internally Displaced Persons, Protection of Refugees, and Stateless Persons: The constitution provides for freedom of movement within the country, foreign travel, emigration, and repatriation, and the government generally respected these rights in practice. The government cooperated with the Office of the UN High Commissioner for Refugees (UNHCR) and other humanitarian organizations in providing protection and assistance to internally displaced persons, refugees, returning refugees, asylum seekers, stateless persons, and other persons of concern.

The laws have provisions for extensive rights for women dealing with family, marriage, and property disputes. Some women have achieved senior positions in business, the professions, and the civil service; however, traditional discrimination against women persists. Women continued to face severe inequalities in all spheres of life: social, cultural, economic, and political. There is no employment antidiscrimination law. According to statistics published by the UNESCO, women continued to lag behind men in literacy and education; 53 percent of women were literate, compared with 62 percent of men.

Village courts tended to impose jail terms on women found guilty of adultery while penalizing men lightly or not at all. By law a district court must endorse orders for imprisonment before the sentence is imposed, and circuit-riding National Court justices frequently annulled such village court sentences. Polygyny and the custom in many tribal cultures of paying a "bride price" tended to reinforce the view that women were property. In addition to the purchase of women as brides, women sometimes were given as compensation to settle disputes between clans, although the courts have ruled that such settlements denied the women their constitutional rights.

The constitution prohibits discrimination against persons with physical or mental disabilities; however, there are no antidiscrimination laws. Persons with physical, sensory, intellectual, and mental disabilities faced discrimination in education, training, and employment. No legislation mandates accessibility to buildings, and most buildings are not accessible. There are no policies or programs to assist persons with disabilities in obtaining access to communications and information. There is a strong societal stigma attached to HIV/AIDS infection that has prevented some individuals from seeking HIV/AIDS-related services. While citizens have the right to the full protection of the law (Constitution Part III.3), freedom from the discrimination is not a guaranteed right.

Legislation regarding national/racial/ethnic minorities: Centuries-old animosities among isolated tribes, a persistent cultural tradition of revenge for perceived wrongs, and the lack of police enforcement sometimes results in violent tribal conflict in the highland areas. During the year tribal fighting continued in the highlands provinces. In the last few years, the number of deaths resulting from such conflicts continued to rise due to the increased availability of modern weapons.

Customary law has constitutional legal status. This means that customs relating to inheritance and property ownership that favour men are effectively preserved. Although there are some limits on customary law, in the absence of a constitutional guarantee that equality between men and women takes precedence over customary law, women have limited recourse against discriminatory practices. Schedule 2.1 (!) of the Constitution provides that customary law is part of the ‘underlying law’ of Papua New Guinea. This is subject to the provisos that customary law cannot be inconsistent with the Constitution or with statute and is not valid if inappropriate to conditions of country. The Customs Recognition Act 1963 provides that customary law is not recognized if it results in injustice or is contrary to public interests or is contrary to the best interests of a child under 16.

Customary laws have been recognized for land disputes, sorcery, marriage, and other related customary issues. For example, patrilineal primogeniture is the dominant system of inheritance and land tenure in both Western and Central Province. The first born son of a family, or the first-born son of a founding clan ancestor has the most decision-making power over customary matters like land usufruct, inter-clan marriage, clan alliances, scheduling ritual cycles, and so forth. In Central Province, the traditional leadership system involved a series of ‘small chiefs’ within one language group, and these are also the first born of first born’s. Their titles involve various dietary and social laws restricting their own behaviour and that of people interacting with them. Chiefs are sometimes prohibited from eating shellfish or certain wild game; they may be required to sit slightly higher or central in a community gathering; and their descendents can only marry from within the aristocracy (traditionally). Today these roles have become less formal, but their restrictions might vary.

Additionally, in most cultures there are laws regarding social interactions between in-laws and cross-cousins. With the latter, this can mean more open ‘joking’ relationships than normal across the gender boundaries; with the former, it can mean prohibitions on making eye contact or eating with father/daughter in law or brother/sister in law.

The original CMCA agreement established in 2001 set up an independent development foundation (the Ok Tedi Development Foundation), and resulted in the Mining (Ok Tedi Mine Continuation (Ninth Supplemental) Agreement) Act. This established a program for continuous review of the compensation and development package. There are 152 CMCA villages which receive direct benefits from the mine. There are also five (5) landowner villages which are part of the Special Mining Lease and receive further benefits from OTML. These amounts vary, but they render all the communities who benefit less needy than the rest of the province.

There are a total of nine CMCA Trusts, running from the Ok Tedi mine down to Daru: The Mine Site, Nupmo, Tutuwe, Wai Tri, Middle Fly, Dudi, Kiwaba, Manawete and Suki Fly Gogo.

The Special Support Grant (SSG) facility was introduced in 1998 to the Provincial and Local Level Governments as part of their development needs in recognition of their contribution to the national revenue. Through this funding facility the National Government provides budgetary support as a major component of a benefits package. The calculation of funds for the Western

Province is based on projected revenues from mining projects¹⁵. This is distributed between the Provincial Government and the project-impacted area according to a sharing agreement. In the Western Province, 80% of the distribution is allocated to the Provincial Government and 20% to the impacted area through the North Fly District Administration (NFDA). Application of SSG is guided by the national medium term development strategy, and priorities outlined in the relevant provincial and district development plans. Because of the uncertainty about mining revenues, SSG applications are submitted after the passage of the National Budgets by Parliament. Multi-year projects can only be approved where ongoing funding is assured for project completion. Eligible socio-economic development projects funded under the SSG facility are primarily infrastructure projects for transport, health, education, primary industry, district administration etc., and all projects are appraised by the Department of National Planning and Monitoring. The *Public Finances (Management) Act* requirements for procurement and contracting must be followed. The Fly River Provincial Administration (FRPA) is responsible for managing the funds through their annual budgets, however capacity to implement the approved SSG projects has been weak, and the FRPA has relied on OTML to take a lead role in project implementation. (OTDF Business Plan 2011).

ANNEX 2: ENVIRONMENTAL CODES OF PRACTICE AND TECHNICAL GUIDELINES FOR COMMUNITY DRIVEN DEVELOPMENT SUB-PROJECTS

1. General Environmental Codes of Practice (applicable to most construction activities)

Issue	Environmental Prevention/Mitigation Measures
1. Noise during construction	(a) Plan activities in consultation with communities so that noisiest activities are undertaken during periods that will result in least disturbance. (b) Use noise-control methods such as fences, barriers or deflectors (such as muffling devices for combustion engines or planting of fast-growing trees) (c) minimize project transportation through community areas (d) Maintain a buffer zone (such as open spaces, row of trees or vegetated areas) between the project site and residential areas to lessen the impact of noise to the living quarters
2. Soil Erosion	(a) schedule construction during dry season (b) contour and minimize length and steepness of slopes (c) use mulch, grasses or compacted soil to stabilize exposed areas (d) cover with topsoil and re-vegetate (plant grass, fast-growing plants/bushes/trees) construction areas quickly once work is completed (e) design channels and ditches for post-construction flows and line steep channels/slopes (e.g., with palm fronds, jute mats, etc.)
3. Air quality	(a) minimize dust from exposed work sites by applying water on the ground regularly (b) do not burn site clearance debris (trees, undergrowth) or construction waste materials (c) keep stockpile of aggregate materials covered to avoid suspension or dispersal of fine soil particles during windy days or disturbance from stray animals
4. Water quality and availability	(a) activities should not affect the availability of water for drinking and hygienic purposes (b) no soiled materials, solid wastes, toxic or hazardous materials should be poured or thrown into water bodies for dilution or disposal (c) the flow of natural waters should not be obstructed or diverted to another direction, which may lead to drying up of river beds or flooding of settlements
5. Solid and hazardous waste	(a) collect and transport construction waste to appropriately designated/controlled dump sites (b) maintain waste (including earth dug for foundations) at least 300 mts. from rivers, streams, lakes and wetlands (c) use secured area for refuelling and transfer of other toxic fluids distant from settlement area and ideally on a hard/non-porous surface (d) train workers on correct transfer and handling of fuels and other substances and require the use of gloves, boots, aprons, eyewear and other protective equipment for protection in handling highly hazardous materials

	(e) collect and properly dispose of small maintenance materials such as oily rags, oil filters, used oil, etc.
6. Health and safety	<ul style="list-style-type: none"> (a) provide personal protective gear for workers as necessary (gloves, dust masks, hard hats, boots, goggles) (b) keep worksite clean and free of debris on daily basis (c) keep corrosive fluids and other toxic materials in properly sealed containers for collection and disposal in properly secured areas (d) Ensure adequate toilet facilities for workers from outside of the community (e) Rope off construction area and secure materials stockpiles/ storage areas from the public and display warning signs. Do not allow children to play in construction areas. (f) Fill in all earth borrow-pits once construction is completed to avoid standing water, water-borne diseases and possible drowning (g) Each construction sub-project to have a basic first-aid kit with bandages, antibiotic cream, etc.
7. Other	<ul style="list-style-type: none"> (a) No cutting of trees or destruction of vegetation other than on construction site (b) No hunting, fishing, capture of wildlife or collection of plants (c) No use of unapproved toxic materials including lead-based paints, un-bonded asbestos, etc. (d) No disturbance of cultural or historic sites

2. Specific Environmental Codes of Practice/Technical Guidelines for Construction and/or Rehabilitation of Minor Works

A. Buildings: Construction, Rehabilitation or Minor Extension of Existing Facilities

Sub-Project Type	Environmental Prevention/Mitigation Measures & Design Elements
1. In general	<ul style="list-style-type: none"> (a) Provide adequate drainage in the building's immediate surroundings to avoid standing water, insect related diseases (malaria, etc.) and unsanitary conditions (b) Include sanitary facilities such as toilets and basins for hand-washing (c) Avoid use of asbestos cement tiles as roofing (d) Tiled floors are preferred for easier cleaning and more hygienic
2. School, clinics and community centers (including: child care centers, community hall, etc.)	<ul style="list-style-type: none"> (a) SCHOOLS/CLINICS: Maximise natural light and ventilation systems to minimise artificial light needs; use large windows for bright and well ventilated rooms. (b) CLINIC: Provide adequate area for treatment, waiting area and patient's rooms, all of which should be well ventilated (c) CLINIC: Include facilities for proper disposal of health and biological wastes (syringes, blood, etc.) (d) MARKET: Provide garbage/waste disposal that can be emptied regularly (e) MARKET: Ensure stalls/shops have covers/rooves to avoid standing water during rainy season

B. Rural Roads: Construction, Rehabilitation or Maintenance within Existing Alignment

Sub-project Types	Environmental Prevention/Mitigation Measures & Design Elements
<p>1. Roads connecting villages, between villages and township</p>	<p>Protect from erosion and landslides:</p> <ul style="list-style-type: none"> (a) Avoid road construction in unstable soils, steep slopes and nearby river banks. Additional measures need to be applied should there be no alternatives for road alignments (see below) (b) Avoid road construction through primary forests as it gives access to illegal logging (c) Sediment control structures should be applied where needed to slow or redirect runoff and trap sediment until vegetation is established (d) Spray water on dirt roads, cuts, fill materials and stockpiled soil to reduce wind-induced erosion, as needed (e) Plant locally available, fast-growing grass on slopes prone to erosion (f) Provide interceptor ditch, particularly effective in the areas of high intensity rainfall and where slopes are exposed. This type of ditch intercepts and carries surface run-off away from erodible areas and slopes before reaching the steeper slopes, thus reducing the potential surface erosion (g) For steep slopes, a stepped embankment (terracing) is needed for greater stability (h) Rocks (riprap) can be used in addition to protect the slope (i) Place a retaining wall at the lower part of the unstable slope. The wall needs to have weeping holes for drainage of the road sub-base, thus reducing pressure on the wall (j) Prevent uncontrolled water discharge from the road surface by sufficiently large drainage ditches and to drain water away from the down slope
<p>2. Small bridges</p>	<p><u>Erosion protection.</u> The main method of slope and erosion protection is through the use of gabions (gravity walls that support embankments or slopes) and ordinary stone pitching.</p> <ul style="list-style-type: none"> (a) Gabions: <ul style="list-style-type: none"> - The slope of gabions should be in the ratio of at least 1 vertical: 2 horizontal. Flatter slopes may be adopted depending on the site terrain. - The filling of the gabions should be from strong and competent rock which is laid very closely packed to maximise the weight. - Bracing wire should be used to prevent the gabion bulging out. The bracing wire should be placed at each third of the gabion height. - The gabions should be firmly anchored into the ground by founding the gabions below the expected scour depth level. - In cases where stone pitching is not provided, the top layer should be covered by soil to encourage the growth of grass and the stabilisation of the slopes. (b) Stone pitching may be provided as an adequate erosion protection measure in those cases where the erosion potential is deemed minimal. Stone pitching is not very resistant to strong water current and is mainly used as the top finish on gabion walls.

	<p><u>Water Quality and Fauna:</u></p> <p>(c) restrict duration and timing of in-stream activities to lower flow periods (dry season) and avoid periods critical to biological cycles of valued flora and fauna (e.g., spawning)</p> <p>(d) use techniques to divert water flow or isolate work area to reduce flow of sediments in moving water</p>
3. Culverts	<p>(a) Remove all formwork from inside the culvert (after concrete has reached full strength). Formwork that is not removed will rot eventually, drop down and obstruct the free flow of water</p> <p>(b) Place large stones at the outlet of the culvert to prevent erosion</p> <p>(c) Keep the culvert inlets free from sand and gravel – the water must flow through the culvert</p> <p>(d) Ensure that the water of the adjacent road sections can flow freely into the roadside ditch</p>

C. Rural Water Supply: Construction or Rehabilitation of Rural Water Supply

Sub-Project Types	Environmental Prevention/Mitigation Measures
1. Wells (deep/shallow)	<p>(a) Before using new water source, take samples for testing for coliform, pH, arsenic, nitrate, color, turbidity and temperature.</p> <p>(b) Include slab around the well for easier drainage, a crossbeam and a pulley to support the use of only one rope and bucket for collecting water. One rope and bucket is more hygienic for the well and water.</p> <p>(c) Steel rungs (placed inside wall of a deep well) are essential for maintenance of a well or in case of an emergency.</p> <p>(d) A groundwater well usually has a wide open water area. It is necessary to provide a cover/roof/wire mesh on top to protect this area from falling leaves or debris.</p> <p>(e) Wells should always be located upstream of the septic tank soakaway. Minimum 15 m (50 feet) distance from septic tank is recommended to maintain quality of the drinking water</p>
2. Rainwater Harvesting	<p>(a) Rainwater storage reservoir should be intact, connected to roof gutter system, with all faucets and piping intact.</p> <p>(b) If distribution pipes are attached into the storage reservoir, install the distribution pipes 10cm above the storage/tank bottom for better use of the storage capacity</p> <p>(c) Cover must be fitted tightly onto the top of the storage reservoir to avoid overheating and growth of algae (from direct sunlight), and to prevent insects, solid debris and leaves from entering the tank</p> <p>(d) A ventilation pipe with fly screen should be placed in the cover to help aerate the tank/reservoir</p> <p>(e) Roof gutters need to be cleared regularly, as bird and animal waste and leaf litter on roofs or guttering can pose a health risk if washed into the reservoir tank</p> <p>(f) Reservoir tanks need overflow so that heavy rain, the excess water can drain away. The overflow should be designed to prevent backflow and</p>

	stop vermin/rodents/insects entering the system. A good design will allow the main storage tank to overflow at least twice a year to remove build-up of floating sediment on the top of the stored water and maintain good water quality.
3. Pipelines from natural springs or surface water sources	<p><u>Water quality and preventing contamination at water sources:</u></p> <ul style="list-style-type: none"> (a) Build a structure with roof over the water source to prevent leaves or other debris from entering into the basin (b) Use fence to protect water source (springs particularly) from public access and risk of contamination (c) Include filter and sand trap, which needs to be regularly cleaned <p><u>Pipe Laying:</u></p> <ul style="list-style-type: none"> (a) PVC water transmission and distribution piping need to be buried underground (coverage 50cm minimum) to prevent pipe against external damage (e.g. passing vehicles, solar UV radiation, etc). Exposing PVC pipe to UV radiation causes the plasticiser in the PVC pipe to evaporate resulting in loss of integrity and becoming brittle. (b) Pipe shall be laid in a straight line, over a constantly falling slope. (c) When conditions do not allow piping to be buried (i.e. pipe is used above ground), then metal pipe must be used, and supported/braced as excessive movement may lead to leaks and breaks. (d) Outlet pipes and fittings from water storage/basin shall not be PVC pipe due to exposure to solar UV/sunlight. Metal piping and fittings are preferred.

D. Rural Electrification: Construction or Rehabilitation of Rural Electrification

Eligible Sub-Projects	Environmental Prevention/Mitigation Measures
1. Solar panel and charge station 2. Pico hydro (<10kw) 3. Solar street lighting 4. Diesel generator (<15 kilovolt-amps)	<ul style="list-style-type: none"> (a) Provide a shed for genset (distributed electrical generator system) or pumps that is accessible for easy maintenance. Regular maintenance is important to avoid spillage/contamination (diesel/petrol/oil). (b) At genset installation, make sure that exhaust pipe ends at the wall side of shed, as the fumes in the shed are unhealthy for the operators. (c) Tidy wiring for easy maintenance and reduces the risk of accidents. (d) Electrical cabling connections for street lighting need to be protected against rain to prevent short circuits (e) A solid pole foundation (min 80 x 80 x 100 cm) is essential for safe lighting and power distribution.

E. Small-scale Irrigation: Rehabilitation (<100 ha) or Minor Extension of Existing Facilities; or New Construction (<25 ha)

Eligible Sub-Projects	Environmental Prevention/Mitigation Measures
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Small-scale irrigation	<ul style="list-style-type: none"> (a) Masonry walls (along the road) or stone riprap should be built to prevent erosion on a sloped bank. (b) May use bamboo as bank protection along the rice fields as the loads are low. (c) A bar screen (vertical bars; about 20mm diam. With an approximate 10 cm clear distance for easy maintenance) is essential in front of any inlet structure (upstream) to prevent large objects and debris blocking the irrigation canal. The angle between the bottom of the canal and the screen shall be between 45 to 80 degrees.
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F. Sanitation Facility: Rehabilitation or Minor Extension of Sanitation Facilities

Eligible Sub-Projects	Environmental Prevention/Mitigation Measures
1. Public latrines/toilets	<p><u>Toilets:</u></p> <ul style="list-style-type: none"> (a) All toilets must have a septic tank to provide primary treatment of waste. (b) PVC pipe used to connect pour-flush toilet to a septic tank must be buried underground or covered over (with cement) for protection and to prevent exposure to sunlight. (c) Metal pipe is a preferred choice to be used as the gas vent pipe on septic tanks. <u>Never</u> use PVC pipe as it is unable to withstand long-term exposure to sunlight. (d) Septic tanks must have a vent pipe to prevent the build up of gas inside the chamber and shall have a ‘manhole’ that provides access inside the tank if needed. (e) A toilet should be at least 20 metres from water sources (f) Septic tanks must be inspected periodically and accumulated sludge emptied every few years to continue functioning properly (g) Do not discharge septic tank effluent to an open drain or other surface water. The effluents need to be treated before final disposal. This may be achieved through: (i) an underground leachfield, (ii) a vegetated leachfield, or (iii) a pit for soaking away
2. Solid waste/garbage disposal	<p><u>Solid Waste Disposal (wastes from rural market)</u></p> <ul style="list-style-type: none"> (a) Solid waste depots/disposal need to be located on hard-standing areas that prevent waste entering surface or groundwater (b) Waste depots/storage/disposal should be contained, sealed and/or roofed/covered to prevent stormwater contamination. Wastes need to be emptied regularly.

ANNEX 3: PROTECTION AND MANAGEMENT OF PHYSICAL CULTURAL RESOURCES

Cultural resources are important as sources of valuable historical and scientific information, as assets for economic and social development, and as integral parts of a people's cultural identity and practices. The loss of such resources is irreversible, but fortunately, it is often avoidable. The objective of OP/BP 4.11 on Physical Cultural Resources is to avoid, or mitigate, adverse impacts on cultural resources from development projects that the World Bank finances.

Cultural property include monuments, structures, works of art, or sites of significance points of view, and are defined as sites and structures having archaeological, historical, architectural, or religious significance, and natural sites with cultural values. This includes cemeteries, graveyards and graves.

The operations of the RSDLGP pose limited risks of damaging cultural property since sub-projects would be identified by the communities themselves who are most likely aware of their own cultural property in the area of operation. In addition, the relatively small size of investments in community infrastructure, reconstruction of existing structures, and minor public works further reduces the risk of “chance find” events.

However, in the event of a “chance find” event (when project activities discover unanticipated cultural artifacts), chance find procedures will be used as follows:

- a. Stop the construction activities in the area of the chance find.
- b. Delineate the discovered site or area.
- c. Notify village leaders and secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard or other relevant protection shall be present.
- d. Notify the Ward Councilor and the LLG manager, who in turn would notify the PPO and Provincial Engineer (within 72 hours).
- e. Contact the responsible local authorities who would be in charge of protecting and preserving the site before deciding on the proper procedures to be carried out. This would require a preliminary evaluation of the findings to be performed by the relevant division of the DEC. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage, including the aesthetic, historic, scientific or research, social and economic values.
- f. Ensure that decisions on how to handle the finding be taken by the responsible authorities. This could include changes in the layout (such as when the finding is an irremovable remain of cultural or archaeological importance) conservation, preservation, restoration and salvage
- g. Implementation for the authority decision concerning the management of the finding shall be communicated in writing; and
- h. Construction work will resume only after authorization is given by the responsible local authorities concerning the safeguard of the heritage.

These procedures will be attached as part of the Sub-grant Agreement between DPLGA and participating communities, and would also be referred to as standard provisions in any construction contracts, when applicable. During project supervision, the PPO Engineer shall monitor the above regulations relating to the treatment of any chance find encountered are observed.

Relevant findings will be recorded by the World Bank in its regular supervision mission and through the Implementation Status and Results (ISR) Reports. If deemed appropriate, the project's Implementation Completion Reports (ICRs) will also assess the overall effectiveness of the project's cultural property mitigation, management, and activities, as appropriate.

ANNEX 4: LAND USE AGREEMENT



**GOVERNMENT OF PAPUA NEW GUINEA
CLAN LAND USAGE AGREEMENT**

Date:

1) We, the undersigned being the representatives of the hereby acknowledge that.....have the right under the native law and custom to lease the land known as (or more particularly described in the plan on the reverse hereof) for the purpose of with the rights to the receive the proceeds of crops, trees and palms grown, livestock grazed and/ or business conducted on the said land. We certify that all members of the said clan agree to the truth of this certificate and that we are the persons authorized by the clan to sign it.

Signature of Witness	Full Name of Clan Leader	His Signature/ Mark
Signature of Witness	Full Name of Clan Leader	His Signature/ Mark
Signature of Witness	Full Name of Clan Leader	His Signature/ Mark

2) We, the undersigned being the representatives of clan of Village,, COE, District ... hereby declares that;

(1) We have the right under customary law to transfer/ lease to thethe land as “.....” (Or more particularly describe in the plans on the reverse hereof) for the purpose of establishing thefacility land,

- (2) That we transfer rights to use, destroy and replenish (edible or non edible) shrub, water sources, creeks other organic matters thereof to the and;
- (3) That we undertake not to interfere in any manner on any activities or developments undertaken by ouron the said parcel of land and;
- (4) We commit ourselves in upholding the contents and the spirit of this agreement for so long as it remains in force;
- (5) We further undertake to convey the contents of this agreement to members of the And to ensure that they so honor it.

3) SIGNATORIES

NAME	SIGNATURE	DATE
1.
2.
3.

4) WITNESSES

We, the undersigned being representatives of clan (who share the land boundary with clan) hereby declare that by Customary Law, we are rightful owners of the land known as “.....” located at Village District and that it has the right by customary law to transfer/ lease the said parcel of land.

NAME	SIGNATURE	DATE
1.
2.
3.

4.

Made under our hands these agreements:

This _____ day of _____ 2013 at _____

village _____ COE _____ in Papua New Guinea

Annex 5

Rural Service Delivery and Local Governance Pilot Project

ENVIRONMENTAL AND SOCIAL SAFEGUARDS CHECKLIST (ESSC)

IDENTIFYING DATA

Title of Sub-Project	
Ward	
LLG	
Province	
Date of First Screening	
Date of Sub-Project Completion Audit	
Date of Final Audit	

A. POTENTIAL ENVIRONMENTAL IMPACTS (Encircle or write the answer)

#	a. Impacts on Landscapes, Soils, Slope Stability, Plants and Animals	Yes / No		Level of Disturbance*			Action #	Actions the Sub-Project will carry out to prevent negative impacts	Completed at Audit? (Y/N)	
		Y	N	Low (L)	HIGH (H)	Unknown (U)			Y	N
01.	Will any vegetation including trees and forests be removed due to planned construction at subproject site?	Y	N	L	H	U	0101	not to cut or remove too many trees or plants.		
							0102	not to build in rainforest, wetland and other critical habitats.		
							0103	to re-plant trees immediately after construction especially		

Rural Services Delivery and Local Governance Project ~ Environmental and Social Management Framework

#	a. Impacts on Landscapes, Soils, Slope Stability, Plants and Animals	Yes / No		Level of Disturbance*			Action #		Completed at Audit? (Y/N)
								those that provide sources of food.	
							0104	to certify that subproject site is not a private food garden.	
02.	Will planned construction of subproject leave soil surface bare?	Y	N	L	H	U	0201	to re-plant trees and other vegetation immediately after construction.	
							0202	not to cut or remove too many trees or plants.	
							0203	to re-plant trees immediately after construction especially those that provide sources of food.	
03.	Is it possible for remains of construction works [i.e. Leftover gravel and cement mixture] entering nearby streams like rivers?	Y	N	L	H	U	0301	to re-plant trees and other vegetation immediately after construction.	
							0302	to limit volume of construction works [i.e. mixing of gravel and cement] so that sediments will not enter streams like rivers.	
							0303	to confine construction site with trench or bund (mound) to avoid surface runoffs from entering surrounding environments.	
							0304	not to discharge water in slopping areas.	
04.	Will construction of subproject cause soil erosion?	Y	N	L	H	U	0401	to re-plant trees and other vegetation immediately after construction.	
							0402	not to cut or remove too many trees or plants.	
							0403	to construct temporary/permanent structures to control erosion.	
							0404	to stabilize sloping area before construction	
							0405	to construct retaining walls to hold back loose sediments	
							0406	to complete construction works within the planned timetable.	
							0407	to do construction works during the dry season.	
							0408	to re-plant trees and other vegetation immediately after construction.	
							0409	to phase ground disturbances so that it is limited to areas of workable sizes	
							0410	to do construction works [i.e. mixing of gravel and cement] on flat ground.	
							0411	to confine construction site with trench or bund (mound) to avoid surface runoffs from entering surrounding environments.	
							0412	not to discharge water in areas that are slanted and unstable.	
							0413	to construct proper drainage systems to divert water away	

#	a. Impacts on Landscapes, Soils, Slope Stability, Plants and Animals	Yes / No		Level of Disturbance*			Action #		Completed at Audit? (Y/N)
								from activity site and other sensitive environment	
							0414	to drain storm-water through a single filtered outlet by passing the water over gravel/sand sieve, then over vegetated surface to remove organic pollutants before discharging on to any drainage system.	
05.	Will subproject construction at identified site affect wetlands/swamp?	Y	N	L	H	U	0501	to look for alternative site if identified site is found to affect wetlands/swamps.	
		Y	N	L	H	U	0502	to confine construction site with trench or bund (mound) to avoid surface runoffs from entering surrounding environments.	
							0503	to construct proper drainage systems to divert water away from activity site and other sensitive environment	
06.	Will construction of subproject affect slope/soil stability?	Y	N	L	H	U	0601	to avoid construction on steep slopes or unstable area.	
							0602	to construct retaining walls to hold back loose soil.	
							0603	not to cut or remove too many trees or plants.	
							0604	not to discharge water in areas that are slanted and unstable.	
07.	Will heavy machinery be used during construction?	Y	N	L	H	U	0701	to avoid use of heavy machineries on unstable areas.	
							0702	not to allow heavy machinery to enter sensitive areas.	
							0703	to use alternative construction methods.	
							0704	to limit use of heavy machinery to construction works that are very necessary.	
08.	Will construction of subproject remove rocks/soils/timber that could change the present landscape?						0801	to avoid construction works that will significantly alter the present landscape	
							0802	needs to choose an alternative construction method or design	
							0803	to remove construction debris from site and dispose of debris in appropriate dumpsites or landfills.	
							0804	to do landscaping work to improve aesthetic value.	
							0805	to preserve or replace top soil.	
							0806	to replant trees immediately after construction.	
08	Will construction of subproject remove rocks/soils/timber that could change the present landscape?	Y	N	L	H	U	0901	to relocate subproject to another site.	
9.	Is the site prone to erosion, earthquake/ landslip, severe	Y	N	L	H	U	0902	to prepare detailed plan to protect infrastructure against any	

Rural Services Delivery and Local Governance Project ~ Environmental and Social Management Framework

#	a. Impacts on Landscapes, Soils, Slope Stability, Plants and Animals storms, floods, or droughts?	Yes / No		Level of Disturbance*			Action #		Completed at Audit? (Y/N)
								natural hazards.	
							0903	to prepare a detailed emergency response plan together with community.	
							1001	to identify natural areas, environmentally sensitive or ecologically fragile areas like rivers, wetlands, swamp, homes of endangered species before starting any activities.	
10.	Will construction of subproject affect important plant and animal species, sensitive environments, natural habitat or ecosystems in the area?	Y	N	L	H	U	1002	to stop any activity if it encounters environmentally or ecologically sensitive areas.	
							1003	to relocate subproject to another site.	
							1004	to provide a buffer of 50-100m between activities and sensitive sites	
							1005	to construct green paths to allow movement of species in search of food, escape predation and seeking refuge.	
							1006	to construct permanent bunds or trench to confine machineries and works	
11.	Can construction areas be placed to avoid disturbing natural habitats?	Y	N	L	H	U	1101	to chose alternative activity, methods or designs	
							1102	to construct permanent bunds or trench to confine machineries and works	
							1103	to construct green paths to allow movement of species in search of food, escape predation and seeking refuge.	

#	b. Impacts on coastal landscapes, ocean forms, processes, and ocean life	Yes / No		Level of Disturbance*			Action #	Actions the Sub-Project will carry out to prevent negative impacts	Completed at Audit? (Y/N)
12.	Will construction of subproject infrastructure affect beaches, coral reefs, sea grass beds, mangroves, or wetlands/swamps?	Y	N	L	H	U	1201	to avoid cutting or damaging mangroves	
							1202	to ensure that any turbidity & sedimentation of coral reefs & sea grasses is localized and temporary	
							1203	to limit construction period.	
							1204	not to discharge solid or liquid wastes in waterways or on coastal environment.	
							1205	If possible, to avoid extraction of beach gravel	
							1206	to construct permanent bunds or trench to confine machineries and works	
							1207	to consider good designs that are transparent to coastal processes as possible.	
13.	Will regeneration/replanting	Y	N	L	H	U	1301	to replant native species around activity site or other	

#	b. Impacts on coastal landscapes, ocean forms, processes, and ocean life	Yes / No		Level of Disturbance*			Action #	Actions the Sub-Project will carry out to prevent negative impacts	Completed at Audit? (Y/N)
	be necessary?							designated areas necessary	
14.	Will subproject infrastructure affect habitats, feeding grounds or nests for turtles, shells, mammals, fish, reptiles or other marine and coastal species?	Y	N	L	H	U	1401	to relocate subproject to another site.	
							1402	to choose alternative activity, methods or designs	
							1403	If possible, to avoid extraction of beach gravel	
							1404	to avoid cutting or damaging mangroves	
							1405	to ensure that any turbidity & sedimentation of coral reefs & sea grasses is localized and temporary	
							1406	to limit construction period.	
							1407	not to discharge solid or liquid wastes in waterways or on coastal environment.	
							1408	to construct permanent bunds or trench to confine machineries and works	
15.	Will the subproject infrastructure affect flight paths for birds?	Y	N	L	H	U	1501	to avoid construction of tall structures.	
							1601	to avoid discharging solid/liquid wastes into waterways or on coastal environment.	
16.	Will subproject involve discharging of waste products to coastal environment?	Y	N	L	H	U	1602	to dispose of liquid and solid wastes in appropriate places.	
							1603	to dispose of sewages in appropriate built septic tanks, and waste water discharged into soak pits.	
							1604	to dispose off any general wastes in community's dump-site.	
17.	Will construction of infrastructure cause coastal erosion?	Y	N	L	H	U	1701	to ensure good design to ensure flooding/ tidal effects and erosion is not locally increased and that effects of sea-level rise are buffered.	
							1702	If possible, to avoid extraction of beach gravel	
							1703	to stabilize shorelines , embankments & wharf abutments.	
							1704	to advise workers not to tip spills or any other materials uncontrollably.	
							1705	to consider good designs that are transparent to coastal processes as possible.	
18.	Will subproject and construction works involve use of coastal wells or water pumps?	Y	N	L	H	U	1801	to prepare a detailed plan to protect water sources from overuse and salt intrusion.	
							1802	to construct culvert around well and a lid on top.	
							1803	to avoid excessive drawing of water using water pump.	
19.	Will pesticides, fertilizer, petrol/oil, or other hazardous chemicals be used?	Y	N	L	H	U	1901	not to use chemicals near coastal environments.	
							1902	to store chemicals in appropriate shed	
							1903	to use chemicals according to instructions.	
							1904	to use biological alternatives to chemicals	

#	b. Impacts on coastal landscapes, ocean forms, processes, and ocean life	Yes / No		Level of Disturbance*			Action #	Actions the Sub-Project will carry out to prevent negative impacts	Completed at Audit? (Y/N)
							1905	to prepare detailed Emergency Response Plan to cover hazardous materials and oil storage and spills.	
							1906	to ensure that all occupational, health and safety requirements are in place	
							1907	to store oil/petrol in appropriate holding containers	
							1908	to indicate chemical hazards through signs, pictures and labels in chemical storage area, cabinet or other places.	
20.	Will subproject involve extraction of materials like sand/ gravel or other disturbances at the near-shore area?	Y	N	L	H	U	2001	If possible, to avoid extraction of beach gravel	
							2002	If not, to extract from an identifiable stable coastal environment	
							2003	to avoid any turtle nesting sites	
							2004	to extract quantities only as per BOQ	
							2005	to avoid extraction from ecologically sensitive areas or productive land	
							2006	to identify aggregate sources from rivers.	
							2007	to avoid extracting material from river bends or other sensitive areas.	
							2008	to replace top soil during rehabilitation.	
							2009	to use existing quarries	
							2010	to rehabilitate extraction site after use.	
21.	Is the location of the activity in an area previously affected by king tides or tsunami?	Y	N	L	H	U	2101	to exercise caution in construction works in coastal areas, especially tidal areas	
							2102	to use design that will not increase flooding/tidal effects/erosion & buffer effects of rise in sea level	
							2103	to use a design that is transparent to coastal processes	
							2104	to relocate subproject	

#	c. Impacts on water resources and water quality	Yes / No		Level of Disturbance*			Action #	Actions the Sub-Project will carry out to prevent negative impacts	Completed at Audit? (Y/N)
22.	Will the activity subproject add to demands on local water supplies or other resource or deteriorate water quality?	Y	N	L	H	U	2201	to construct large reservoir tanks	
							2202	to use rainwater resources by installing rainwater tanks.	
							2203	to identify water sources that would adequately cater to increasing population.	
							2204	to avoid discharge of wastes into surface water bodies	
23.	Will the activity affect downstream users of water	Y	N	L	H	U	2301	to avoid activities within catchment area of important water	

#	c. Impacts on water resources and water quality	Yes / No		Level of Disturbance*			Action #	Actions the Sub-Project will carry out to prevent negative impacts	Completed at Audit? (Y/N)
	resources?							sources such as like logging, animal farming and major construction activities	
24.	Will the activity cause excessive water to pond that would create breeding sites for mosquitoes?	Y	N	L	H	U	2401	to construct proper drainage system to effectively drain water away from site.	
							2402	to contain activity site to avoid natural surface flow entering into activity site.	
							2403	to re-vegetate bare surfaces immediately after construction works	

#	d. Impacts from pollutants, chemicals, toxic substances and infectious waste	Yes / No		Level of Disturbance*			Action #	Actions the Sub-Project will carry out to prevent negative impacts	Completed at Audit? (Y/N)
25.	Will the construction or operation of subproject generate waste materials, sewage, solid wastes and other materials such as batteries? Will wastes be disposed of locally	Y	N	L	H	U	2501	to dispose of raw manure and sewages properly to avoid contamination of water contained and waste water generated from cleaning manures must be disposed off in a sewage system so as any domestic sewages.	
							2502	to design sewage system in a way that waste water is slowly filtered out through medium of soil, sand and gravel to give time for bacteria to breakdown contaminants.	
							2503	to locate septic tank at low lying areas to avoid sewer pollution of ground water.	
							2504	to dispose of solid wastes like packaging and empty cans in community dumping sites or to bury them	
							2505	to incinerate other wastes including animal carcasses, blood and body parts	
							2506	to incinerate animals that died from diseases to avoid spread of diseases.	
							2507	to dispose of other general wastes in the community's designated dumping site.	
							2508	to design septic tanks based on sanitation manual obtainable from Project Office	
							2509	not to dispose of batteries locally; to be handled according to IDIB guidelines	
							2510	to prepare an adequate monitoring program and maintenance plan.	
26.	Will subproject generate clinical & related wastes such as wastes containing blood, bodily fluids, faeces, body parts,	Y	N	L	H	U	2601	to ensure that necessary facilities and capacity for upgraded facilities are consistent with Ministry of Health and Medical	

#	d. Impacts from pollutants, chemicals, toxic substances and infectious waste	Yes / No		Level of Disturbance*			Action #	Actions the Sub-Project will carry out to prevent negative impacts	Completed at Audit? (Y/N)
	medical instruments, sharps, chemicals?							services design standards & those in RWSS sanitation manual	
							2602	to dispose any clinical wastes strictly according to the guidelines set out in the Clinical waste disposal obtainable from PSUs	
27.	Will hazardous substances like fuel, paint, other chemicals, batteries, medicines be used/ stored in the area?	Y	N	L	H	U	2701	to store medicines according to standards & guidelines of the Ministry of Health.	
							2702	to store fuels, paints & chemicals in cool, dry shed that is properly lined and contained and away from public and important water sources.	
							2703	to prepare a detailed Emergency Response Plan to cover hazardous materials and oil storage and spills.	
							2704	to ensure that all occupational, health & safety requirements are in place on site	
							2705	to indicate presence of chemical hazards to employees and communities by signs, pictures and labels in chemical storage area, cabinet or other appropriate place.	
28.	Will construction or wastes from construction affect the quality of streams or groundwater?	Y	N	L	H	U	2801	to avoid activities like logging, agricultural activities including animal farming and major construction activities within the catchment area of important water sources.	
							2802	to avoid discharging solid/liquid wastes into waterways or on coastal environment.	
							2803	to dispose of liquid and solid wastes in appropriate places.	
							2804	to dispose of sewages in appropriate built septic tanks, and waste water discharged into soak pits.	
							2805	to dispose off any general wastes in community's dump-site.	
29.	Will construction activities create noise or dust problems?	Y	N	L	H	U	2901	to carry out noisy construction works during the day (normal working hours)	
							2902	to carry out construction works away from public areas.	
							2903	to advise locals if construction is to produce noise or dust	
							2904	to spray water on exposed areas during dry periods	
30.	Will concrete and bitumen be used during construction?	Y	N	L	H	U	3001	to contain mixing area for concrete and bitumen to avoid spillage and contamination of surrounding environment.	
							3002	to dump waste concrete in landfills	
							3003	to dispose of waste water in soak pits	

B. POTENTIAL SOCIAL IMPACTS

#	a. Impacts on people and communities	Yes / No		Level of Disturbance*			Action #	Actions the Sub-Project will carry out to prevent negative impacts	Completed at Audit? (Y/N)
		Y	N	L	H	U			
31.	Is the land area for the subproject more than 5% of the total community area?	Y	N	L	H	U	3101	to certify that subproject requires less than 5 percent of community land.	
							3102	to ensure that subproject does not conflict with the livelihood of people	
							3103	to show proof that community agreed on location of subproject	
							3104	to secure consent letter from landowner that land acquisition was done voluntarily	
32.	Will the subproject involve the permanent use of land?	Y	N	L	H	U	3201	to ensure that subproject does not interfere in any farm land or residential area	
							3202	to secure signed letter of consent [on the use of land] from the community.	
33.	Does the project require the taking of customary land or some private land?	Y	Y	L	H	U	3301	to secure consent letter from landowner that land acquisition was done voluntarily	
							3302	to inform workers to respect village & landowner boundaries, observe codes of conduct and avoid damage to properties and resources	
							3303	to advise community on project plan and to encourage community participation	
34.	Will the subproject involve the use or acquisition of land that has not yet being used for this purpose?	Y	Y	L	H	U	3401	to secure consent letter from landowner that land acquisition was done voluntarily	
							3402	to inform workers to respect village & landowner boundaries, observe codes of conduct and avoid damage to properties and resources	
							3403	to advise community on project plan and to encourage community participation	
35.	Will the subproject be built on public land and/or land not used for residence or farming?	Y	N	L	H	U	3501	to secure consent letter from landowner that land acquisition was done voluntarily	
							3502	to inform workers to respect village & landowner boundaries, observe codes of conduct and avoid damage to properties and resources	
36.	Will the subproject require land/water use leases or changes in tenure?	Y	N	L	H	U	3601	to secure consent letter from landowner that land acquisition was done voluntarily	
							3602	to certify that any other resources required by subproject will	

#	a. Impacts on people and communities	Yes / No		Level of Disturbance*			Action #	Actions the Sub-Project will carry out to prevent negative impacts	Completed at Audit? (Y/N)
		Y	N	L	H	U			
								be provided voluntarily by owner for community use and a signed consent letter obtained from them.	
37.	If the local populations live a traditional lifestyle, will the activity affect resources that local people take from the natural environment? Water, marine/ land food, fuel, home medicines, building materials etc.	Y	N	L	H	U	3701	to certify that subproject requires less than 5 percent of community land.	
							3702	to ensure that subproject does not conflict with the livelihood of people	
							3703	to secure consent letter from landowner that land acquisition was done voluntarily	
							3704	to inform workers to respect village & landowner boundaries, observe codes of conduct and avoid damage to properties and resources	
							3705	to replant any fruits trees or medical herbs that were cut during site clearance.	
38.	Will future opportunities to use natural resources or economic opportunities be lost due to the subproject?	Y	N	L	H	U	3801	to ensure that subproject uses natural resources sustainably.	
							3802	to replant any fruits trees or medical herbs that were cut during site clearance.	
							3803	to avoid disturbance to natural rainforests, important water sources, marine environment and other important natural resources.	
39.	Does the activity pose any other risk to people's livelihood?	Y	N	L	H	U	3901	not to continue with subproject	
40.	Will the subproject cause the resettlement of people, properties and food gardens?	Y	N	L	H	U	4001	SIC to certify that subproject will not force people out of their homes to relocate	
							4002	to certify that subproject not to forcibly take other people's properties/food gardens.	
							4003	to certify that any other resources required by subproject will be provided voluntarily by owner for community use and a signed consent letter obtained from them.	
41.	Will construction works involve workers or other people moving into or using the area?	Y	N	L	H	U	4101	to inform workers to respect village & landowner boundaries, observe codes of conduct and avoid damage to properties and resources	
							4102	to encourage skilled villagers to do construction works	
							4103	to advise community on project plan and to encourage community participation	
42	Will the subproject create jobs locally for women and youth?	Y	N	L	H	U	4201	to encourage skilled workers in the village to participate in construction works.	
43	Is the subproject location culturally or archaeological	Y	N	L	H	U	4301	to certify that no tambu areas are located within or close to	

#	a. Impacts on people and communities	Yes / No		Level of Disturbance*			Action #	Actions the Sub-Project will carry out to prevent negative impacts	Completed at Audit? (Y/N)
	sensitive?							subproject site	
							4302	to stop works and to identify local authorities if any excavation encounters any archaeological site or artefacts	
44	Will the subproject affect traditional culture of men and women?	Y	N	L	H	U	4401	to inform workers to respect village & landowner boundaries, observe codes of conduct and avoid damage to properties and resources	
							4401	to advise community on project plan and to encourage community participation	
45	Does the location of the proposed subproject pose a risk to community social stability?	Y	N	L	H	U	4501	to discontinue with subproject	
							4502	to choose an alternative subproject site	
							4503	to relocate subproject site	
46	Will the subproject benefit a dominant group or power in he community?	Y	N	L	H	U	4601	to advise community on project plan and to encourage community participation	
							4602	to certify that subproject will benefit the whole community	
47	Is there any conflict or dispute [i.e. land dispute] that could prevent construction to continue?	Y	N	L	H	U	4701	not to continue with activity if there is any conflict or dispute.	
							4702	to relocate subproject site	
48	Will the use of community labour reduce time for them to attend to household needs?	Y	N	L	H	U	4801	to schedule the use of community labour	

Findings at Environmental and Social Audit (Sub-Project Completion Stage)

I certify that the environmental and social mitigation measures identified at Project Appraisal have been;

- Are adequately completed
- Need to be referred to the Environment Officer for further assessment
- Have the following omissions and defects which need to be rectified before a final completion certificate is issued

- a.
- b.
- c.

Name & Signature
PPO Officer Undertaking the Audit

Annex 6: Environmental and Social Management Plan (format and sample)

1. Basic Sub-project Data

a. Project Title	
b. Ward	
c. LLG	
d. Province	

2. Environmental and Social Management Plan

Type of Sub Project	Potential Environmental Impacts	Mitigating measures	Date to be accomplished
...	<input type="checkbox"/>	<input type="checkbox"/>	

SAMPLE ESMF

a. Project Title	
b. Ward	
c. LLG	
d. Province	

Type of Sub Project	Potential Environmental Impacts	Mitigating measures	Date to be accomplished
Road repairs and maintenance Foot Path track Maintenance	<input type="checkbox"/> Reduced road due to closed sections under repair <input type="checkbox"/> Poor traffic management and safety issues. <input type="checkbox"/> Inappropriate spoil disposal. <input type="checkbox"/> Gravel excavation/sourcing at inappropriate locations. <input type="checkbox"/> Land and surface water pollution from runoff of stockpiled or excess bitumen. <input type="checkbox"/> Dust impacts on air quality.	<input type="checkbox"/> Prepare basic traffic management plan with support and assistance of local police. <input type="checkbox"/> Remove spoil materials in project site and dispose in approved locations. <input type="checkbox"/> Use approved/licensed quarries or suppliers. <input type="checkbox"/> Mix sealant material in approved locations or camp sites. No on site mixing allowed. <input type="checkbox"/> Clean up onsite locations if accidental contamination	

	<p><input type="checkbox"/> Loud noise in residential and commercial areas and in ecologically sensitive areas</p>	<p>spills occur. Rehabilitate affected sites after use.</p> <p><input type="checkbox"/> Use periodic water bowsers/spraying to meet local or acceptable air quality emission standards.</p> <p><input type="checkbox"/> Restrict activities to normal working hours during the day and avoid early morning and late night activities.</p> <p>Adopt good construction practices</p>	
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ANNEX 7: Grievance Redress Mechanism

The RSDLGP has in place a Grievance Redress Mechanism (GRM) that is designed to facilitate feedback from any project participant or stakeholder regarding project operations, management, use of resources and impacts of activities, intentionally or otherwise, and resolution of the same by project management, Government and/or the World Bank. In the event that any project stakeholder feels that the principles or processes of the project have not been adhered to or followed, or that resources have been misused or any person or persons have abused the process for personal gain, or that the Project is seen as harming households or community groups, then those stakeholders have the right to raise their concerns and to seek satisfactory acknowledgement and resolution of their grievances. This right is essential to ensure transparency and accountability. Stakeholders will be informed of the Project GRM through community meetings, project documentation and through the local media. The Project Grievance Resolution Mechanism uses a three stage approach:

Stage 1: If the source of the concern is located within a community itself, then the first attempt to resolve the problem will be made through traditional methods and mechanisms at village level (relying on village elders or other respected individuals/institutions such as churches, etc.) to report and resolve the issue if possible. Otherwise, the WDC or the Ward Councilor may be used, or a public meeting may be called to help resolve the problem.

Stage 2: If local methods cannot solve the problem to the satisfaction of the concerned stakeholders, either WDC or the stakeholders may then take the matter to the LLG Manager or the LLG Project Officer, who will endeavor to propose a satisfactory solution.

Stage 3: Should the LLG Manager not be able to offer a satisfactory solution the matter may then be referred to the LLG Grievance Committee. If there is currently no such committee, the LLG Manager, with Assembly endorsement will appoint such a committee. The committee will include the appointed Women, and Church representatives. The Committee will consider whether the grievance is genuine and, if so, will suggest an appropriate course of action to resolve the matter. If, however, either the aggrieved party or the party at fault does not accept the suggested solution, the Grievance Committee may then direct that the matter be forwarded to the Village Court system for resolution.

If, for any reason, stakeholders feel that the local institutions cannot assist in the resolution of grievances because they include an individual or individuals who have themselves abused the process, then they may take their grievance to the Provincial Project Office, either directly, or through any other third party such as an NGO, a faith-based group, or a women's network, etc.

The Community Facilitator would be responsible for recording the grievance or complaint in a record-book specifically for this purpose, and for reporting to the LLG on grievances recorded through his/her quarterly ward progress report. If, due to its nature, the grievance requires immediate attention, the Community Facilitator would inform the LLG without waiting for

quarterly report submission. The summary report of grievances/complaints from the CFs would be captured in the project's management information system (MIS) at the LLG level by the LLG Manager (who will have access to the MIS via a tablet computer to be provided under the project). The MIS would track the date and type of comment or complaint (informational, regarding sub-project process, project staff behavior, use of sub-project financial resources, etc.), how and when the comment or complaint was resolved. The LLG Manager and the PPO will consult each other on all complaints received on at least a quarterly basis to respond to any systematic issues or problems. The PMU (M&E Officer) would track and report on the overall project grievance resolution process to the World Bank for discussion and action as required during semi-annual implementation support missions.