

CHANGE FIND PROCEDURE

INCORPORATED INTO THE

**ENVIRONMENTAL AND SOCIAL MANAGEMENT
FRAMEWORK**

FOR THE

**WATER SUPPLY AND SANITATION DEVELOPMENT
PROJECT (WSSDP)**

REPORT

Prepared for Water PNG

April 2016

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A. INTRODUCTION

Papua New Guinea has the lowest water and sanitation access indicators amongst the 15 developing Pacific Island nations. The latest (2015) update of the UN's Joint Monitoring Program (JMP) estimates access to safe drinking water and improved sanitation in PNG in 2012 at 40% and 19% respectively. Over the period of more than two decades since 1990, the increase in access to safe drinking water has been very small (access in 1990 was 34%), while improved sanitation coverage recorded a drop from 20% in 1990 to 19% in 2012. PNG has missed its Millennium Development Goal targets for water and sanitation, and is not on track to meet its own national development targets of 70% access by 2030, and 100% access by 2050.

There are significant variations in the water and sanitation access rate, and the status and pace of development, among the rural water supply, rural sanitation, urban water supply and urban sanitation subsectors. Furthermore, until very recently, PNG did not have any agencies designated to be responsible for water sector policy and regulation, nor for overall planning, implementation and management of water and sanitation services in the country.

In response to this situation, the World Bank is implementing the Water Supply and Sanitation Development Project (WSSDP) with the objective to support the development and strengthening of the planning and implementation capacity of water sector institutions, and to increase access to water supply services in selected urban towns and rural districts. The financing for the WSSDP is USD 70 million via the International Development Association (IDA) which will be directed toward institutional development, capacity building and infrastructure investments in water supply systems.

Water PNG (WPNG), a State Owned Enterprise (SOE) will be the implementing agency for investment in construction of water supply systems (WSS) in district and provincial towns. The project will be implemented via a Project Management Unit (PMU) within the Department of National Planning and Management (DNPM).

B. PURPOSE AND SCOPE OF THE ESMF

This ESMF has been prepared as the specific locations and detailed information about the water supply system subprojects will not be known until implementation. An initial investment project has been identified – the Bialla Town Water Supply Project – for which an Environmental and Social Impact Assessment (ESIA) has been prepared in accordance with the guidance herein. Water PNG has a long list of water supply scheme projects awaiting funding; however the targets for investment under WSSDP will not be determined until implementation.

The purpose of this ESMF is to guide the implementing agencies - Water PNG and non-government organisations (NGOs) - on the environmental and social screening and subsequent environmental and social assessment of subprojects during project implementation. While the project design includes the establishment of a water, sanitation and hygiene (WaSH) project management unit (WaSH PMU), this entity will not be responsible for delivery of subproject investments during the WSSDP lifecycle. The WSSDP has been classified as Environmental Category B.

The procedures outlined in the ESMF serve to ensure that potential adverse environmental and social impacts that may be generated as a result of each subproject activity are identified early, and appropriate safeguard instruments are prepared prior to implementation to avoid, minimize, mitigate and, in cases where there are residual impacts, offset or minimize adverse environmental and social impacts. The ESMF also contains guidance on safeguard instruments that may be triggered by certain activities, such as an Environmental Assessment (EA, OP4.01).

The ESMF will outline the requirements for the application of the various WB Safeguard Policies so that environmental and social safeguard instruments consistent with the WB and national requirements are produced.

The ESMF outlines the environmental and social screening requirements to determine the project category, defines the potential environmental and social issues associated with specific sub-projects, and guides the preparation of the relevant safeguards instruments.

C. PROJECT DESCRIPTION

The WSSDP concept and design are aligned to the current status and pace of development in the different water sub-sectors of rural water, rural sanitation, urban water and urban sanitation in Papua New Guinea. In rural situations, there are currently no systematic or integrated planning or financing mechanisms in place that could provide for comprehensive national planning and decision making, financing and implementation of water and sanitation infrastructure. Consequently, the focus would be on building the institutions and establishing district level WaSH planning and decision making, before beginning to scale up the pace of infrastructure investment to increase access. On the other hand, infrastructure investment to increase access in urban water supply can be undertaken utilizing the existing institutional, implementation and service provision structure of Water PNG. With regards to urban sanitation, most of the districts and provincial towns are relatively small and of low density such that improved septage management and hygiene behavior are likely to be more appropriate efforts than infrastructure investments in sewerage systems.

The overall aim of the WSSDP is to support the implementation of the National WaSH Policy. This will begin to put in place the first national level WaSH sector-wide policy, development planning, management and monitoring framework in PNG. The WSSDP will support the development, establishment and strengthening of national sector institutions (in particular the WaSH PMU) and sector tools (strategies, plans and sector instruments) that will form the management framework of the sector as envisaged in the National WaSH Policy.

The ultimate objective is to increase access to, and improve the quality of, water and sanitation services to the population of PNG as well as improve hygiene behavior and practices. Consequently, the Project will work simultaneously at the service provision level – in the rural and urban areas respectively.

The WSSDP will coordinate with Government, development partners and NGOs. Necessarily, the Project will need to be coordinated with the overall activities and efforts of the Government's own direct efforts to implement or support the implementation of the National WaSH Policy. The Bank will also coordinate support with existing and future development partners active in supporting the WaSH sector in general, and supporting the implementation of the National WaSH Policy in particular. Various NGOs are active in supporting community-level WaSH schemes. These NGOs are expected to be invaluable partners that will help the capacity building of new district-level government institutional structures and facilitate the subsequent rural water and sanitation investments. The various existing methodologies, processes and management arrangements of rural water and sanitation in PNG pioneered by these NGOs are expected to be the basis for the eventual establishment of common rural water and sanitation guidelines by the WaSH PMU.

Three major components are proposed for the project: (1) National WaSH Policy Component, (2) Rural and Peri-urban Water Supply and Sanitation (WSS) Component, and (3) Urban WSS Component. The rural and peri-urban WSS component, and the urban WSS component, are in turn subdivided into a policy implementation or institutional strengthening subcomponent and an associated infrastructure investment subcomponent. Given the phasing and pace of support to the different sub-sectors component funding allocation is expected to be largest in the urban WSS component. A fourth component is proposed to respond to climate and disaster risks. These components are described in further detail below.

Component 1: Institutional structures for the implementation of the WaSH Policy

This component is focused on supporting the development of the key sector institution i.e., the WaSH PMU, and key sector tools (strategies, plans and sector instruments) that will form the management framework of the sector as envisaged in the National WaSH Policy. The National WaSH Policy provisions for the development of comprehensive sector institutions and sector tools over a period of time. Starting from a nascent setup, the WaSH PMU is

envisaged to be developed over time into a full-fledge national sector authority (NWSHA) responsible over a range of sector issues – development and investment planning and coordination, monitoring, regulations, etc.

Component 2: Rural and Peri-urban Water and Sanitation

This component is focused on supporting the WaSH PMU to develop a framework for the coordination, planning and implementation of rural and peri-urban WSS in districts and in peri-urban areas. It is envisaged that the delivery of services will be through the sub-national authorities, in particular the new District Development Authorities (DDAs). The primary role of the WaSH PMU is thus to coordinate and provide a systematic national framework (including common policies, guidelines, financing frameworks and mechanisms, monitoring, regulations, etc.) and supporting the subnational authorities for rural and peri-urban WSS development and investments. Support towards building the national framework is addressed in Component 1. Component 2 will focus on supporting and building the capacity of the new district level authorities (DDAs) to plan, develop, implement and monitor rural WSS. District-wide systematic WaSH planning, development and monitoring is not yet practiced. This component will begin by piloting the development of District WaSH Development Plans in up to four selected pilot districts, as a means of trial out and provide lessons on how the WaSH PMU could work through subnational authorities towards a systematic increase of access to services in districts. At the same time, the development of these plans provides the opportunity for building the capacity of DDAs in WaSH. Upon the successful development of district plans, selected investments in rural WSS based on these plans are expected to be undertaken.

Component 3: Urban Water and Sanitation

This component is focused on supporting the expansion of WSS services to urban areas, specifically in district and provincial towns where Water PNG has the mandate to provide these services. It is envisaged that a rolling program of design and investment support for new provincial and district towns schemes (planned to be implemented in batches) would be carried out. Investment will commenced with a first priority and ‘shovel-ready’ town scheme, which has been designed during project preparation, to test out and pave the way for a smooth rolling investment program. Given the water security and sustainability issues linked to climate change risks, scheme designs will include optimal design options for water conservation, energy efficiency, and source sustainability. Other town schemes, to be identified from the pool of currently unserved district and provincial towns, will follow suit during implementation. This component will also support technical and financial improvements in Water PNG’s existing operations. The existing operations of Water PNG would be assessed through technical audit and a program of technical and performance based improvements developed and implemented with project financing support. This component will also support a critical assessment of Water PNG’s existing business and operating model, in particular to identify options that could be adopted in the future to ensure continual financial viability as it expands service provision new (and generally small and less profitable) district towns.

Component 4: Contingent Emergency Response

Given PNG’s vulnerability to climate and disaster risks this ‘zero component’ (initially without any allocated funding) is proposed to be included. This Component will allow for the rapid reallocation of funds from other components to provide emergency relief, recovery and reconstruction support in the event of a natural disaster, emergency and/or catastrophic event. Funds potentially reallocated to Component 4 would be disbursed either against a positive list of critical goods and/or against the procurement of works, and consultant services required to support the immediate response and recovery needs. Implementation will be guide by a Contingent Emergency Response Implementation Plan to be developed as necessary in response to the emergency.

Subproject Typologies

The focus of this ESMF is Component 3 which will involve the establishment of basic water supply systems in district and provincial towns across Papua New Guinea (PNG). The target towns have populations in the range 5,000 -15,000 people with the likely project capital cost in the range of USD3 to 10 million. It is estimated that about 7 to 8 further water supply systems could be financed under the project, chosen from the pool of unserved district and provincial towns under Water PNG's service provision mandate. Out of these approximately 75 towns, the following towns are deemed by Water PNG to be priorities: Aitape, Angoram, Boana / Nawae Bogia, Bulolo, Henganofi, Ialibu, Kerema, Kerowagi, Kupiano, Lufa, Mendi, Minj, Misima, Namatanai, Nebilyer, Palmalmal, Pangia, Vanimo, Wapenamanda and Wau. A batch of towns will be chosen for investment financing based on Water PNG's priority and the available financing envelope.

The essential components of these water supply systems are expected to include the following:

- a raw water collection point such as a bore or stream. Many towns in PNG have established water supply bores; however there is no associated distribution system. Alternative raw water sources may include nearby streams with sufficient sustainable flow;
- pumping stations and rising mains to abstract the water from the source and transfer it to the treatment facility and/or water storage facility;
- water treatment facilities. The scale and complexity of these facilities depend on the quality of the raw water source. For groundwater sources this might be as simple as chlorine dosing; whereas surface water sources would likely require a package water treatment plant with facilities for clarification (suspended sediment removal) and purification;
- a water storage facility. This will generally comprise an above ground reservoir situated in an elevated position relative to the end users to allow distribution of treated water by gravity where possible;
- a pipe network for distribution of water to consumers (which may be private houses or commercial establishments) and other usage points (such as fire hydrants).

Subject to successful development of District WaSH Development Plans under Component 2, some rural WSS investments will be funded through community participatory approaches. The systems to be built will be very small comprising gravity-fed reticulated systems, rainwater tanks or hand-pumped wells to service small villages.

Investments in sanitation will be mostly in rural situations under Component 2 and will be limited to hygiene behavior education including technical assistance with simple technologies, i.e. pit latrines. Investments in urban sanitation infrastructure will be limited to rehabilitation of existing Water PNG sewerage systems.

D. POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS

Overall, the WSSDP is environmentally and socially beneficial. The sub-project components are expected to involve simple, appropriate, low cost technologies that do not pose any significant environmental or social consequences. The provision of safe drinking water and sanitation facilities is expected to have a significant positive impact on the improvement of livelihoods and the environment. Some minor and temporary negative environmental impacts may occur, resulting mainly from the construction activities. These impacts are readily manageable by standard civil works mitigation measures such as restrictions on working hours, dust management through watering down, and erosion and sediment control. Observations at existing construction sites under Water PNG oversight suggest that the organization's staff is well-equipped to manage environmental and social issues at worksites.

Environmental and social considerations will form a central part of project identification and design under WSSDP. Avoidance of negative environmental and social issues will be the focus of project identification and design. Any potential "show-stopper" issues will be carefully considered and in some instances (where the probability of resolution is not adequate), the project may be determined to be not eligible for financing. Safeguards specialists will be recruited at the project identification phase to ensure they play an effective role in project impact assessment and risk screening.

D.1 Potential Environmental Impacts

Water Source Sustainability

A key environmental issue for the project is the sustainability of the raw water supply and the avoidance of any environmental impacts from source development. To ensure these impacts are avoided, assessments of the proposed water sources will be undertaken to determine their sustainability under the proposed extraction regime. These assessments will consider the ecological values of the water sources, seasonal variations in supply volumes and the proposed extraction regime to determine the source sustainability. Candidate water supply schemes with sources that are not sustainable from an environmental perspective will not be eligible for project financing. Furthermore, if source development may result in unacceptable impacts on freshwater habitats these schemes will not be eligible for project financing.

The project will not seek to develop water sources that require changes to watershed management regimes. Similarly, no water sources will be developed where there is the potential for significant impacts on protected areas or biodiversity nor will infrastructure be sited in these areas.

Sanitation

Investments in sanitation will be mostly in rural situations and will be limited to hygiene behavior education including technical assistance with simple technologies, i.e. pit latrines. Investments in urban sanitation infrastructure will be limited to rehabilitation of existing Water PNG sewerage systems. Hence the potential for environmental impacts from the sanitation activities is expected to be insubstantial. During the course of rehabilitation works of Water PNG systems, the environmental performance of these systems will be reviewed and recommendations made for improvements where necessary.

Construction Phase Impacts

Potential construction phase impacts may include the following:

- soil erosion and sedimentation from active worksites during excavation activities;
- noise from construction machinery operation. Where surrounding buildings - especially hospitals, schools and houses - are close to the construction site, care must be taken to ensure that noise does not adversely affect building occupants;
- air quality impacts from operating machinery (i.e. fumes) and dust generation from earthworks;

- access restrictions to properties and other premises for short periods during installation of reticulation and other infrastructure;
- generation of solid waste, which will be limited to packaging waste and material offcuts; and
- fuel and oil spills from operating machinery and storage facilities.

Standard civil construction mitigation measures will be applied to minimise these impacts including:

- clean water diversions around earthworks sites and minimising area of disturbance at any one time;
- adopting standard working hours and limiting the duration of noisy activities as necessary;
- maintaining machinery in good working order and watering down earthworks sites as necessary;
- providing temporary access to essential services, businesses and households during construction;
- storage of solid waste in receptacles and disposal at approved landfills; and
- provision of spill response kits and storage of fuel and oil in bunded enclosures or secure containers;

Operation Phase Impacts

Once the water supply systems are commissioned environmental impacts will be very limited.

Noise impacts from pump stations will be inconsequential as pumps will generally be electrically-powered (submersible in the case of groundwater-based systems). Back-up diesel-powered pumps will be housed in brick buildings.

Water treatment will mainly involve alum flocculation (to remove suspended sediment from stream-sourced water) and chlorine dosing to kill bacteria and other pathogenic microorganisms. Minor quantities of alum sludge will be generated, however this is environmentally benign and can be disposed of by burial.

D.2 Potential Social Impacts

Summary

The overall social impact of the project is expected to be strongly positive, with the provision of reticulated water supply to district towns and rural settlements having numerous benefits. These benefits include the provision of basic services in the form of clean water supply, with resulting improved health outcomes amongst the beneficiary population. The provision of reticulated supply to residences will also alleviate the burden of water collection, which disproportionately falls on female members of households. The positive impacts include (i) improved quantity and quality of safe drinking water (ii) reduction in water related diseases such as diarrhea, dysentery, cholera, typhoid and thereby minimizing the cost of healthcare in households (iii) reduction in infant, child and maternal mortality and morbidity due to improved health and sanitation services (iv) reduced distances to water points which will lead to gains in productive time for women and girls.

Potential negative social impacts are associated with poor water quality from the new supply systems. To avoid potential impacts raw water will be treated with disinfecting agents such as chlorine and treated water will be regularly tested against World Health Organisation (WHO) drinking water quality guidelines.

Indigenous Peoples

Indigenous Peoples (IP) communities may exist within subprojects' areas of influence. Subprojects under Component 2 may include rural areas where the majority of beneficiaries are IP. For these projects no separate Indigenous Peoples Plan (IPP) will be prepared with

IPP elements instead incorporated into overall subproject design. Investments under Component 3 are unlikely to meet the four defining criteria for IP communities in PNG under the *Environmental and Social Safeguard Instruments for the Pacific Islands Countries* (ESSIP) as most infrastructure will be sited within urban areas which are expected to comprise heterogeneous populations. However ancillary infrastructure (eg. rising mains from stream sources) may traverse customary/IP community lands beyond the urban boundary in which case OP 4.10 would be triggered and a subproject-specific IPP will be prepared. A social assessment will be undertaken for each sub-project to establish the presence, or otherwise, of IP communities in the respective project areas. If present, IP communities will be provided with equitable and culturally-appropriate benefits from the subproject. A process of free, prior and informed consultation with IP communities will be undertaken to establish broad community support. Furthermore, if customary/IP land is required for subprojects under either Components 2 or 3, access to such land (via Voluntary Land Donation, negotiated leases or acquisition) will be undertaken in accordance with the Resettlement Policy Framework in Annex 2. An Indigenous Peoples Planning Framework (IPPF) has been prepared and is incorporated in Chapter F.

Land Acquisition and Involuntary Resettlement

The approach adopted by the project will focus on avoiding any need for land other than Government owned land such as public sites and roads etc Subprojects requiring involuntary resettlement will be ineligible for project financing at the eligibility screening stage. The bulk of land required for water supply infrastructure established under Component 3 sub-projects is expected to be Government-owned, hence acquisition is not required by a state-owned enterprise, which is Water PNG. In some instances however (eg. installation of rising mains or development of stream-based water sources) private or customary land may be traversed. In these instances an Abbreviated Resettlement Action Plan (ARAP) will be prepared which documents one of the three applicable process, namely (i) Voluntary Land Donation, (ii) Negotiated Settlement (Leases) or (iii) (albeit considered exceptionally unlikely), involuntary land acquisition.

Under Component 2 in rural situations the provisions of the RPF will guide the process for accessing land and or/land use rights.

Physical Cultural Resources

Known physical cultural resources will be identified through consultation with relevant stakeholders (including local communities) and avoided through design. As construction works will primarily take place within established road easements and other disturbed locations in urban situations it is unlikely that any physical cultural resources will be uncovered. However, if physical cultural resources are accidentally uncovered they will be managed under a chance finds procedure which is included in Annex 3.

E. LEGAL, POLICY FRAMEWORK AND REGULATORY REQUIREMENTS

E.1 WORLD BANK POLICIES AND GUIDELINES

The World Bank has developed a series of operational policies (OP), or safeguards, to help identify, avoid, and minimize harms to people and the environment. These safeguards require borrowing governments to address certain environmental and social risks in order to receive Bank financing for development projects. Eight OPs apply to environmental and social risks and, of these, three are triggered by the WSSDP as described below.

OP 4.01 Environmental Assessment

The World Bank requires environmental assessment (EA) of projects proposed for financing to help ensure that they are environmentally sound and sustainable, and to improve decision making. Guidance on the applicability of OP 4.01 to Pacific Island countries (PICs) is provided in the Bank's document Environmental and Social Safeguards Instruments for Pacific Island Countries (ESSIP) (2015). The ESSIP notes that an Environmental and Social Impact Assessment (ESIA), incorporating an Environmental and Social Management Plan (ESMP) is prepared when a project (or subproject) has complex issues that require some form of project-specific environmental and social impact analysis. For projects in the PICs with less complex issues and lower risk a Limited ESIA may be prepared. This more limited EA process is applicable to the WSSDP. While the sub-project investments are generally expected to have only limited environmental and social impacts this policy is triggered to ensure an appropriate level of EA is undertaken.

OP 4.10 Indigenous Peoples

OP 4.10 ensures that the development process fully respects the dignity, human rights, economies, and cultures of Indigenous Peoples. The World Bank recognizes that the identities and cultures of Indigenous Peoples are inextricably linked to the lands on which they live and the natural resources on which they depend. These distinct circumstances expose Indigenous Peoples to different types of risks and levels of impacts from development projects, including loss of identity, culture, and customary livelihoods, as well as exposure to disease.

Indigenous Peoples (IP) are defined under OP 4.10 as distinct, vulnerable, social and cultural groups possessing the following characteristics in varying degrees:

- self-identification as members of a distinct indigenous cultural group and recognition of this identity by others;
- collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories;
- customary cultural, economic, social, or political institutions that are separate from those of the dominant society and culture; and
- an indigenous language, often different from the official language of the country or region.

Country-level social analysis undertaken during the preparation of the ESSIP suggests that groups meeting the four defining characteristics of OP 4.10 are likely to be found in PNG, which is recognized as being highly heterogeneous, with numerous groups exhibiting distinctive institutions, maintaining self-identification, and speaking more than 600 separate languages or dialects.

While there are indeed many groups within PNG that meet the IP definition, the key qualifier for the applicability of the policy is whether these groups are present in the project area of influence. Project investments under Component 3 will be predominantly within existing urban areas with infrastructure sited on Government-owned land. Beneficiary populations within these urban areas are expected to be heterogeneous with individuals from various cultural groups, both local and from further afield in PNG. Hence, while individual members of IP communities may reside within the project area of influence the nexus with distinct habitats or

ancestral territories within the project area may not exist. Notwithstanding, ancillary infrastructure (eg. stream source extraction, rising mains etc.) may traverse customary land outside the boundaries of existing urban areas. Similarly subprojects in rural areas may include those in which the majority of beneficiaries are IPs.

If there is potential for IPs to be affected by a subproject, the policy requires:

- a process of free, prior and informed consultation (an inclusive, transparent, and continuing process of consultation with affected Indigenous Peoples);
- a social assessment by the borrower to evaluate the project's potential positive and adverse effects on Indigenous Peoples, and to examine project alternatives where adverse effects may be significant;
- a summary judgment by the Bank that affected Indigenous Peoples have provided broad community support to a proposed project;
- preparation of an Indigenous Peoples Plan (IPP) guided by the Indigenous Peoples Planning Framework (IPPF) included here in Chapter F;
- public disclosure of the social assessment report and the relevant safeguard instrument;
- attention to emerging issues affecting Indigenous Peoples / Ethnic Minorities, which may include, for example: an action plan for the legal recognition of Indigenous lands and territories, equitable benefits in commercial development of natural resources, or prior agreement to the commercial development of their cultural resources and knowledge.

OP 4.11 Physical Cultural Resources

OP 4.11 policy addresses physical cultural resources (PCR) which are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings, and may be above or below ground, or under water. Their cultural interest may be at the local, provincial or national level, or within the international community.

OP 4.12 Involuntary Resettlement

World Bank experience indicates that involuntary resettlement under development projects, if unmitigated, often gives rise to severe economic, social, and environmental risks: production systems are dismantled; people face impoverishment when their productive assets or income sources are lost; people are relocated to environments where their productive skills may be less applicable and the competition for resources greater; community institutions and social networks are weakened; kin groups are dispersed; and cultural identity, traditional authority, and the potential for mutual help are diminished or lost. This policy includes safeguards to address and mitigate these impoverishment risks.

Involuntary resettlement may cause severe long-term hardship, impoverishment, and environmental damage unless appropriate measures are carefully planned and carried out.

For these reasons, the overall objectives of OP 4.12 are the following:

- involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs;
- where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs; and
- displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.

Environmental Health and Safety Guidelines

The World Bank Group's Environmental, Health and Safety (EHS) Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP). When one or more members of the World Bank Group are involved in a project, these EHS Guidelines are applied as required by their respective policies and standards. The General EHS Guidelines are designed to be used together with the relevant Industry Sector EHS Guidelines which provide guidance to users on EHS issues in specific industry sectors. In the WSSDP case the relevant Industry Sector Guidelines are the *Environmental, Health, and Safety Guidelines for Water and Sanitation* (December 2007) which include information relevant to the construction, operation and maintenance of potable water treatment and distribution systems.

The EHS Guidelines contain the performance levels and measures that are generally considered to be achievable in new facilities by existing technology at reasonable costs. The applicability of the EHS Guidelines should be tailored to the hazards and risks established for each project on the basis of the results of an environmental assessment in which site-specific variables, such as host country context, assimilative capacity of the environment, and other project factors, are taken into account. The applicability of specific technical recommendations should be based on the professional opinion of qualified and experienced persons. When host country regulations differ from the levels and measures presented in the EHS Guidelines, projects are expected to achieve whichever is more stringent.

The General and Industry Sector EHS Guidelines are available at the following link - <http://www.ifc.org/ehsguidelines>.

E.2 APPLICABLE COUNTRY LEGISLATION AND REGULATIONS

Environmental Legislation

The key environmental legislation in Papua New Guinea is the *Environment Act 2000* and the associated *Environment (Prescribed Activities) Regulation 2002*.

Section 7 of the Act includes a general environmental duty whereby: "A person shall not carry out an activity that causes or is likely to cause an environmental harm unless the person takes all reasonable and practicable measures to prevent or minimise the environmental harm", where an activity is one "...which results or is likely to result in a change to the environment."

For the purposes of environmental assessment and permitting the Regulation classifies activities as Level 1, 2 or 3 based on the level of environmental risk. Level 2 or 3 activities require an Environment Permit prior to commencement. In relation to water supply activities the Regulation specifies a number of activities related to water supply that require Environment Permits including:

- Operation of potable water treatment plants with a design capacity of greater than 1 million litres per day;
- Abstraction or use of water for commercial purposes, except where such abstraction or use is ancillary or incidental to, or associated with, any other activity in this Regulation in which case that category of activity will apply to the abstraction or use of water.
- Construction of major hydropower schemes or water supply reservoirs inundating an area greater than 5 km².

Subprojects under the WSSDP may involve operation of potable water treatment plants with a design capacity of greater than 1 million litres per day and will involve abstraction or use of water for commercial purposes. However subprojects that include a water reservoir inundating an area greater than 5 km² will not be eligible for financing. All these activities are Level 2 activities and the relevant regulatory framework is illustrated in Figure 1.

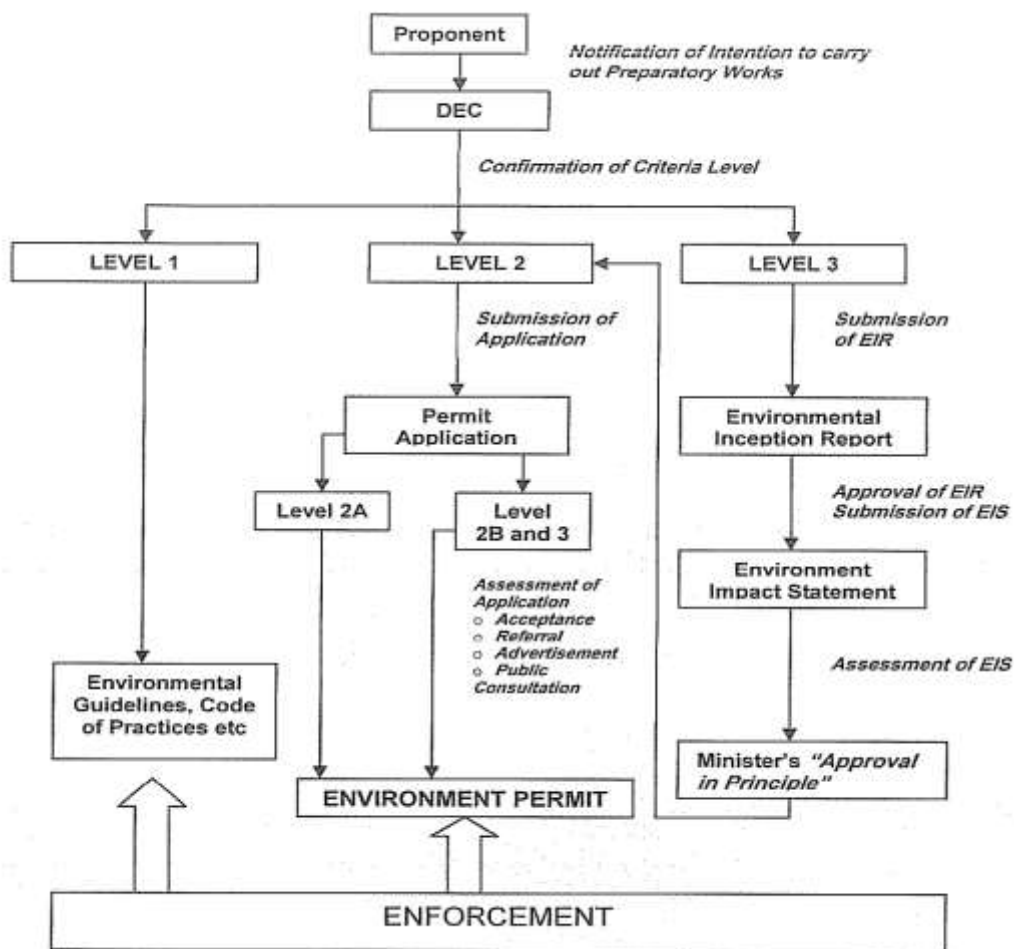


Figure 1 Environment Permit Process

In addition to the *Environment (Prescribed Activities) Regulation 2002* there are a further three regulations that have been developed under the *Environment Act 2000* which are applicable to the WSSDP:

- *Environment (Permits and Transitional) Regulation 2002*
- *Environment (Fees and Charges) Regulation 2002*
- *Environment (Procedures) Regulation*

The Regulations are supported by a series of Guidelines and Codes of Practice.

Land Legislation

The Land Act 1996 is the fundamental legislation to manage land issues in Papua New Guinea. The country has only 3% of the land that is under the state. 97% of the land is still under customary land tenure. For the purpose of the Project, the relevant provisions in the Act are in Division 10, which deals with Urban Development Leases. Where there is an urban development lease on a site and the road easement and allotments are clearly marked and identified, the land is confirmed to be under state (or private) ownership and therefore there is no infringement on customary land ownership.

Water Legislation

The development and distribution of clean and safe water to communities in both villages and towns is a major issue. To address issues relating to water resources regulation, drinking water quality standards, and regulation of operations, the Government vested various responsibilities with three institutions. These are the Department of Environment and

Conservation operating under the *Environment Act 2000*, the Department of Health under *Public Health Act 1973* and Water PNG under the *National Water Supply and Sewerage Act 1986*.

Public Health Act 1973

This Act makes provision with respect to matters of public health in Papua New Guinea including the supply of potable water, the maintenance of the purity of water supply and the associated licensing. It establishes water quality standards, and delegated responsibility for monitoring and regulation to the National Department of Health (DoH).

DoH is vested with the responsibility of setting Drinking Water Quality Standards through adoption of international guidelines and standards. The DoH adopted and set as PNG Drinking Water Quality Standards the World Health Organisation Drinking Water Quality Guidelines. For protection of the health of its citizens, the Government through DoH reviews the Drinking Water Quality Standards from time to time.

Public Health (Drinking Water) Regulation 1984

The *Public Health (Drinking Water) Regulation 1984* provides for the construction of water supply and treatment installations, prescribe standards for “raw water”, i.e. untreated water and standards for “drinking water, i.e. treated water that is supplied for use by consumers, and regulate inspections, sampling and analysis for water supplied under these Regulations.

National Water, Sanitation and Hygiene Policy

Papua New Guinea’s National Water, Sanitation and Hygiene (WaSH) Policy was approved by the National Executive Council (NEC) in late January 2015. The Policy establishes PNG’s first sector-wide national policy on the development, management and implementation of the water supply and sanitation sector development and service provision plans. The Policy provides for the establishment of a National Water, Sanitation and Hygiene Authority (NWSHA) to form the anchor agency for policy implementation, sector regulation, coordination and systemization, monitoring and capacity building.

The goal of the National WaSH policy is to contribute towards improving the quality of life, specifically:

1. Reduction in morbidity and mortality caused by water-related diseases.
2. Improved livelihood opportunities and economic growth through improved health and reduced economic and financial losses.
3. Increased equity of services between rural, peri-urban and urban areas, and to disadvantaged groups.

This will be achieved through the objective of “*providing equitable access to safe, convenient and sustainable water supply and sanitation, and to promote improved hygiene practices and long term hygiene behaviour change at the personal, household, community and institutional level, particular to rural and urban settlement areas that are currently under-served*”.

In order to measure progress against this objective, the policy identifies clearly defined targets:

For water supply:

- In rural areas, 70% of the population has access to a safe, convenient and sustainable water supply.
- In urban areas, 95% of the population has access to a safe, convenient and sustainable water supply.
- 100% of educational institutions and medical centres across the country have access to a safe, convenient and sustainable water supply.

For sanitation:

- In rural areas, 70% of the population has access to safe, convenient and sustainable sanitation facilities.
- In urban areas, 85% of the population has access to safe, convenient and sustainable sanitation facilities.
- 100% of educational institutions and medical centres have access to safe, convenient and sustainable sanitation facilities.

For hygiene:

- 100% of educational institutions and medical centres have handwashing facilities with running water and soap.
- 100% of the households that have access to an improved water supply practice total sanitation

Institutional Framework

Until very recently, PNG did not have any agencies responsible for WaSH sector policy and regulation, nor for overall planning, implementation and management of water and sanitation services. Apart from areas served by Eda Ranu (Port Moresby) and Water PNG (some provincial towns) the provision of services fall to subnational governments, private resources extraction companies (providing services within their operating locations), and non-state actors. Non-state actors (faith-based groups and domestic and international NGOs) have been important for supporting water supply developments in rural areas, but these have been limited to specific geographic areas, dependent on unreliable funding streams and have limited operations and maintenance (O&M).

Eda Ranu and Water PNG have specific governing legislations focused on their commercial roles with obligations to operate profitably and deliver financial returns to the state. While they are profitable, they may not have financial incentives to expand their services into typically unprofitable peri-urban areas and smaller urban centers. Water PNG had been expected to promote and support the development of water and sanitation in rural and peri-urban areas on a self-help basis.

Component 1 of the WSSDP will support the development, establishment and strengthening of national sector institutions and sector tools (strategies, plans and sector instruments) that will form the management framework of the sector as envisaged in the National WaSH Policy. This component is focused on supporting the development of the key sector institution the WaSH Project Management Unit (PMU) to be formed by the Department of National Planning and Management (DPNM). At the end of the WSSDP, it is envisaged that the WaSH PMU will be able undertake its basic mandate of development planning and facilitating investments in the rural and peri-urban areas. Starting from a nascent setup, the WaSH PMU is envisaged to be developed over time into a fully-fledged national sector authority - National Water, Sanitation and Hygiene Authority (NWSHA) - responsible over a range of sector issues including development and investment planning and coordination, monitoring and regulations. The establishment of the NWSHA will take time and is unlikely to occur during the project period. Component 2 will support the development, establishment and strengthening of institutions responsible for WSS service delivery in rural areas.

E.3 GAP ANALYSIS

Table 1 outlines the gaps that exist between the World Bank Operational Policies (OPs) and the PNG laws and regulations. In all instances where PNG legislation is not fully equivalent with World Bank OPs the latter will prevail.

Table 1 Regulatory Gap Analysis

OP Requirement	PNG Equivalent	Equivalence
Environmental Screening. Projects categorised as A, B or C.	Projects are screened and categorised as Level 1, 2A, 2B and 3.	Fully equivalent. These are broadly equivalent to the WB Cat A, B and C projects.
Cat B projects require the preparation of either an ESIA if the sub-projects are not known or an ESMP if the sub-projects impacts are similar and not likely to involve serious impacts.	Level 2B projects require a Permit Application which includes the same requirements for baseline environmental assessment and an EMP.	Fully equivalent.
An EMP that includes mitigation measures, allocation of responsibilities, costs and reporting requirements.	Level 2B activities require an EMP that includes mitigation measures, allocation of responsibilities, costs and reporting requirements.	Fully equivalent
Monitoring is required that includes a monitoring framework that allocates location, frequency, costs and responsibilities,	Monitoring is required but there is no specified framework provided.	Partially equivalent.
Public consultation required for Category B projects	Level 2B only require consultation under special circumstances.	Partially equivalent.
Disclosure is required	Disclosure is not required.	Not equivalent.
Institutional capacity and training requirements are assessed.	Not required.	Not equivalent.
IPP or IPPF is a requirement	No equivalent legislation.	Not equivalent.
Disclosure to IP	No equivalent legislation.	Not equivalent.

F. PROCEDURES TO ADDRESS ENVIRONMENTAL AND SOCIAL ISSUES

This section describes the procedures in place to determine: (i) the categorization of the project activity based on potential adverse environmental and social impacts of project activities, and (ii) how potential impacts will be addressed through the selection of appropriate mitigation and management plans. Approved subproject activities must be consistent with these procedures.

F.1 Environmental and Social Safeguard Procedures

The procedures for identifying and assessing safeguard impacts of project activities and assessing impact mitigation measures is outlined below. These steps aim to ensure that the World Bank's safeguard policies are followed.

Step One – Eligibility Screening

Potential subprojects will be screened for eligibility using the screening form in Annex 1. Subprojects with the potential to cause significant impacts on natural habitats or requiring involuntary land acquisition will not be eligible for financing.

Step Two – Scoping and Evaluation of Alternatives

Scoping will identify which specific activities are envisaged; any known environmental sensitivities; any sites with known or potential cultural, heritage or unique natural values that may involve environmental and social impacts and may require discussion with knowledgeable expert/s and local stakeholders. Potential significant impacts on these sites will be avoided by design.

Following scoping an evaluation of alternatives will be undertaken including:

- water sources – including sustainable yield, raw water quality, pollution and contamination risk;
- infrastructure siting – including water treatment plants, pump stations and reservoirs with respect to sensitive receptors, flood risk and land acquisition requirements; and
- pipeline routes – including avoidance of forest areas, natural habitats and cultural resources and requirement for land acquisition.

Preferred alternatives will be identified in consultation with local communities and other relevant stakeholders.

Step Three – Technical Screening and Categorisation of Subprojects

All subprojects and activities are subject to the screening process using the Safeguards Screening Form in Annex 1 to determine the appropriate categorisation of the subproject according to the potential level of environmental and social impact and Bank guidelines (i.e. Category A, B, C or FI). Category A subprojects will not be eligible for financing. The screening form will determine the appropriate safeguard instrument to be applied according to the type of activity and possible level of impact or disturbance.

Step Four – Determine Safeguard Instrument

Following Step Three, a WaSH PMU or Water PNG will assist in the preparation of the required documentation (including TORs where these may be tendered out). Table 3 lists all safeguard instruments that may be applied under the relevant safeguards policies depending on the categorisation of the subproject. It is anticipated that a Limited ESIA and EMP will be required for all Category B subprojects.

Step Five – Assessment and Consultation

Parameters for Limited ESIA's and associated studies will be defined by Water PNG through TORs. ESIA's will be undertaken by qualified consultants or technical specialists to identify the level of adverse impacts of subprojects and proposed activities prior to any works taking place.

Step Six – Preparation of Management Plans

Once the appropriate safeguard instrument has been identified and a proper assessment of potential project-induced social and environmental impacts that could arise during implementation is complete, Environmental and Social Management Plans (ESMP) will be prepared. Subproject-specific plans are prepared for Bank review and approval during implementation, as and when relevant information becomes available.

Step Seven – Implementation of Mitigation Measures

Mitigation and management measures outlined in the ESMP (e.g. site selection criteria, diligent construction management, control measures) will be implemented by contractors and supervised by WaSH PMU or Water PNG PMU's supervising engineers. Performance indicators should be defined to ensure the effectiveness of measures in place, which can be monitored and reported on throughout the project lifecycle.

Step Eight – Monitoring and Reporting

Monitoring is required to gather information to determine the effectiveness of implemented mitigation and management measures and to ensure compliance of the contractor with the approved EMP. Environmental indicators will be defined when mitigation measures are confirmed and the PMU's (with support from relevant agencies) will be tasked with monitoring compliance by contractors throughout implementation.

F.2 Environmental and Social Safeguards Instruments

Under Bank requirements, a Limited ESIA will be required for Category B subprojects. Standardised ESMPs may be applied where Category B subprojects with limited impacts are identified in the screening process. The level of detail in the Limited ESIA for Category B subprojects will depend on the nature and scale of the proposed subproject. The process and preparation of Limited ESIA documentation will primarily be guided by the ESSIP. Table 2 summarises the various safeguards instruments required.

Table 2 **Safeguard Instruments**

Safeguard Policy	Type of Subproject	Applicable Instrument
OP4.01 Environmental Assessment	All subprojects or activities	Safeguard Screening Form (Annex 1)
	Category A	Not eligible for financing under WSSDP
	Category B (Geographically limited, readily identified impacts that can be mitigated)	A limited ESIA is undertaken for Category B subprojects that require additional subproject-specific data/information and further analysis including site assessment, and analysis of alternatives/environmental and technical constraints to determine the full extent of environmental and social impacts. For subprojects with limited impacts an Environmental and Social Management Plan (ESMP) only will be prepared.
	Category C (Negligible or minimal potential impacts that are easily mitigated)	Category C projects do not require any safeguard instrument beyond screening and adhering to Environmental Code of Practice (ECOP) if relevant.

Safeguard Policy	Type of Subproject	Applicable Instrument
	Construction works	Construction Environmental Management Plan (EMP) to address construction-related and site-specific environment and social issues.
OP4.10 Indigenous Peoples	All subprojects or activities	Safeguard Screening Form
	Indigenous People are present in project area	Social Assessment (SA) may be undertaken as a separate exercise or included as part of the Limited ESIA. Free, prior and informed consultations (FPIC) will be undertaken to inform the SA. The Indigenous Peoples Planning Framework (IPPF) provides guidance on how to incorporate elements of the Indigenous Peoples Plan (IPP) into the project design and to prepare subproject specific IPPs if relevant.
OP4.11 Physical Cultural Resources	Construction or land clearing	Safeguard Screening Form
	All subprojects or activities	Chance Finds Procedure (CFP) as detailed in EMPs.
OP4.12 Involuntary Resettlement	Only triggered where Government land is not available and land and/or access to land is required.	Resettlement Policy Framework (RPF)

The SA will look at the sociocultural setting, governance structures, cultural heritage, and livelihood aspects of the local context. The SA may be included as part of the environmental and social impact assessment (ESIA) for the project or undertaken as a stand-alone assessment.

The SA must examine issues relevant to Indigenous Peoples, in accordance with OP4.10. The Indigenous Peoples Planning Framework (IPPF) has been developed to guide incorporation of key elements into project design and these issues that should be considered when planning the SA and consultation activities.

Assessments and proposed mitigation measure may have an inequitable impact on women or disadvantaged groups that need careful consideration. The proposed design must consider viable alternatives and the overall inclusivity with regard to gender and the needs of vulnerable groups or persons where applicable.

F.3 Indigenous Peoples Planning Framework

Introduction

As noted in Chapter E, country-level social analysis undertaken during the preparation of the ESSIP suggests that groups meeting the four defining characteristics of OP 4.10 Indigenous Peoples (IP) are likely to be found in PNG, which is recognized as being highly heterogeneous, with numerous groups exhibiting distinctive institutions, maintaining self-identification, and speaking more than 600 separate languages or dialects.

Each subproject under the WSSDP will need to be screened in accordance with OP 4.10 to determine if IP communities are present within a subproject's area of influence. As insufficient project information was available on the subproject sites prior to appraisal, this Indigenous Peoples Policy Framework (IPPF) has been prepared.

Potential Issues and Impacts Relating to Indigenous Peoples Communities

The ubiquitous nature of IP communities in PNG combined with the geographic spread of potential subprojects under the WSSDP suggests that these communities have the potential to be present in subproject areas. The potential positive and negative social impacts on IP communities are similar to those for the non-indigenous population as described in Section D.2

The greatest potential for interactions with IP communities is under Component 2 which will finance four subproject water supply scheme investments in rural areas. These subproject locations are currently unknown however it is conceivable that they may be located in IP community homelands. If the majority of beneficiaries of a subproject are IP the elements of an Indigenous Peoples Plan (IPP) will be incorporated into overall subproject design. These elements include:

- identifying issues relating to the particular IP community via a social assessment process;
- undertaking free, prior and informed consultations and reviewing outcomes to determine broad community support;
- ensuring equitable access to culturally-appropriate benefits for the IP community;
- actions to avoid, minimize or otherwise mitigate any adverse impacts affecting the IP community;
- accessible and culturally appropriate means to address grievances; and
- monitoring and information disclosure arrangements.

Investments under Component 3 are unlikely to meet the four defining criteria for IP communities in PNG under the *Environmental and Social Safeguard Instruments for the Pacific Islands Countries* (ESSIP) as most infrastructure will be sited within urban areas which are expected to comprise heterogeneous populations. However ancillary infrastructure (eg. rising mains from stream sources) may traverse customary/IP community lands beyond the urban boundary in which case OP 4.10 would be triggered.

Legal, Policy and Institutional Framework

Should any community within a WSSDP sub-project exhibit any of the following then OP 4.10 will be triggered:

- Self identification as members of a distinct indigenous cultural group that is recognised by other members of the community.
- Collective attachment to geographically distinct habitats or ancestral territories or have access to specific natural resources in these habitats or territories.
- Customary cultural, economic, social, or political institutions that are separate and distinctly different from the dominant surrounding community.
- An indigenous language that is different to the official language of the region.

There is no relevant legislation in PNG relating to IP; hence the measures identified here (and subsequently within specific IPPs) will manage impacts on these communities. The relevant subprojects will be planned and implemented in a manner consistent with the principles and procedures of OP 4.10.

Implementation Arrangements

The Independent State of Papua New Guinea bears official responsibility for ensuring that any IPP (where required) is prepared and implemented. Direct authority for IPP development and implementation is vested in the WaSH PMU or Water PNG (as relevant), which will exercise its authority as necessary to coordinate actions with any other agencies or jurisdictions involved in planning or implementation. If an IPP is required for a particular subproject a technical consultant (anthropologist) will be engaged by Water PNG to develop, implement

and monitor the plan. Further details on general implementation arrangements are provided in Chapter I.

Consultation Arrangements

Initial consultations will be undertaken at the subproject screening stage to establish if IP communities are present with the respective area of influence. If IP are present the consultation process, to be coordinated by the relevant agency, will be undertaken in a free, prior and informed manner that results in a collective expression by IP communities of broad community support for the project. The consultation process will be conducted in a manner that is:

- free, allowing Indigenous Peoples communities to openly express their preferences or concerns without intimidation or trepidation;
- in a timely manner, such that the preferences or concerns raised by Indigenous Peoples communities may be considered before project design decisions or implementation arrangements are finalized;
- informed in that Indigenous Peoples communities have been provided, and have had sufficient opportunity to consider, relevant information about the project;
- inclusive, with special consultation arrangements included where necessary to obtain the preferences or concerns of women, the elderly, or others who customarily may not be expected or allowed to participate in community meetings.

A summary (including date, location, approximate number and status of persons in attendance, and summary of issues discussed and any agreements reached) will be prepared and recorded for each consultation meeting.

Arrangements for Social Assessment

A social assessment will be undertaken where an IPP is required, with the scope, level of detail, and methodological aspects of the assessment commensurate with the nature and extent of subproject-related impacts and risks. The social assessment will be incorporated in the sub-project ESIA and will include the following elements (as relevant):

- description of the subproject and potential issues or impacts relating to IP communities;
- identification of relevant IP communities and other key stakeholders to be consulted in the social assessment process;
- baseline information on the demographic, social, cultural, economic and political characteristics of relevant IP communities;
- elaboration of a culturally appropriate process for free, prior and informed consultations with IP communities during IPP preparation and project implementation;
- assessment of the potential adverse impacts and benefits likely to be associated with the project based on consultation; and
- summary of preferences and concerns of Indigenous Peoples communities relating to project objectives, access and cultural appropriateness of project benefits, mitigation of any adverse impacts, and project implementation arrangements.

Broad Community Support

Based on results of consultations and the social assessment process, the Government of PNG will determine whether there is broad community support for the project among relevant Indigenous Peoples communities. This determination generally is based upon collective and often informal expression of supportive views regarding project purposes, plans, and implementation arrangements. This determination does not require unanimity; broad community support may exist even when there is internal disagreement within the community

or when there is limited opposition to project purposes or proposed arrangements. The IPP explains the basis upon which the determination has been made.

Outline of an Indigenous Peoples Plan

The scope and level of detail required in the IPP is commensurate with the nature and extent of subproject-related impacts and risks which in the case of the WSSDP is likely to be low. The IPP will include the following contents:

- project description and summary description of issues relating to Indigenous Peoples;
- a brief summary of relevant issues and findings of the social assessment process;
- a summary of results from consultations and review of determination of broad community support;
- actions to ensure equitable access to culturally appropriate benefits for Indigenous Peoples communities;
- actions to avoid, minimize or otherwise mitigate any adverse impacts affecting Indigenous Peoples communities;
- cost estimates, budget and financial responsibilities for implementation of the IPP;
- accessible and culturally appropriate means to address grievances raised by Indigenous Peoples (individually or collectively);
- monitoring arrangements; and
- arrangements for information disclosure.

Disclosure Arrangements

The Government of PNG, through the WaSH PMU or Water PNG, agrees to disclose relevant information regarding project design and implementation arrangements to Indigenous Peoples communities and to the broader public. Specifically, results of the social assessment process, this ESMF and IPPF, and any subsequently prepared IPP will be made available in a manner, location and language accessible to Indigenous Peoples communities. If a draft IPP or IPPF is subject to subsequent revision, the revised documents will also be disclosed in a similar manner.

Disclosure of documents will be facilitated through the World Bank's InfoShop, the Water PNG website and in hard copy at a location accessible to the relevant IP community. If necessary, the IPP technical consultant will provide interpretation of the relevant documentation to the IP community during the implementation of the IPP.

Monitoring Arrangements

If the IPP contains any specific actions to benefit Indigenous Peoples communities, or measures to mitigate any adverse impacts upon them, a monitoring process will be defined in the IPP to assess the effectiveness of actions or mitigation measures, and to provide a means for ongoing consultation with those communities throughout the implementation period.

Grievance Procedure

In WSSDP subprojects, arrangements will be established to ensure that Indigenous Peoples communities may bring complaints to project management attention, and that the WSSDP responds to complaints in a timely and considered manner. Within Indigenous Peoples communities, complaints can be raised by individuals, groups, or by the community as a whole. Specific arrangements for raising and addressing grievances will be defined and described within the relevant subproject IPP. For WSSDP, it has been agreed that the grievance procedures will:

- be accessible (e.g., location, language, and socially inclusive) to all community members;

- use local customary arrangements for conflict resolution in an initial stage of review, as appropriate in the project context;
- have a second stage of review at the project management level, with a grievance committee chaired by the director of the WaSH PMU or Water PNG; and
- have defined and disclosed performance standards for replying to grievances received at both initial and project management-level review stages.

Individuals or communities with complaints that have not been resolved to their satisfaction may also seek legal recourse consistent with laws and procedures of the country.

F.4 Land Acquisition

Subprojects requiring compulsory land acquisition will not be eligible for financing. In consideration of the complex land acquisition arrangement in PNG, the project has been designed to avoid to the greatest extent the need to use land other than Government owned land. Where non-Government land may be required, the project would screen out these sub-projects from project support except in circumstances where individuals or customary groups (far more likely in PNG as 97% of land holding is under customary title) would be able to donate the land or enter a negotiated agreement (such as a lease) with Water PNG. Involuntary land acquisition in PNG is extremely time consuming and can lead to social unrest and substantial project delays.

Any land/or land use right required to facilitate the project would be acquired in accordance with the RPF held at Annex 2.

G. GRIEVANCE REDRESS MECHANISM

During the course of the project it is possible that affected persons or communities may have concerns with the project's social or environmental implementation occurring during construction and possibly during operation. Any concerns will need to be addressed quickly and transparently, and without retribution to the affected parties.

World Bank funded projects are required to implement a grievance redress mechanism (GRM) to receive and facilitate resolution of affected peoples' concerns, complaints, and grievances about the project's performance, including concerning environmental and social impacts and issues. The mechanism ensures that: (i) the basic rights and interests of every affected person by poor environmental performance or social management of the project are protected; and (ii) their concerns arising from the poor performance of the project during the phases of design, construction and operation activities are effectively and timely addressed.

In the early stages of engagement, project stakeholders and affected communities must be made aware of:

- how they can access the GRM;
- who to lodge a formal complaint too;
- timeframes for response;
- that the process must be confidential, responsive and transparent; and
- alternative avenues where conflicts of interest occur.

The grievance process is based upon the premise that it imposes no cost to those raising the grievances; that concerns arising from project implementation are adequately addressed in a timely manner; and that participation in the grievance process does not preclude pursuit of legal remedies under national law. Local communities and other interested stakeholders may raise a grievance at any time to the WaSH PMU, Water PNG or the World Bank's Inspection Panel.

Water PNG conducts regular customer surveys at all its operating locations. Its Customer Charter provides for customer feedback, reports and complaints, primarily through their operational branch offices. Water PNG is also currently setting up a national call center (expected to be launched in mid-2016) to which customers will be able to make free calls to provide service feedback, breakage reports and complaints. These surveys and customer feedback channels will form an important part of beneficiary engagement and grievance response during the implementation of the project.

Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org

H. PUBLIC CONSULTATION AND INFORMATION DISCLOSURE

For every WSSDP sub-project, formal and documented public consultation and information disclosure will be required in accordance with the WB and national legislation that documents consultation and information disclosure requirements.

H.1 Consultation to Date

The development of the draft ESMF involved discussion with key stakeholders including Water PNG, other government ministries, local level governments (LLG) and members of potential subproject communities in January 2016.

H.2 Information Disclosure

Information disclosure is mandated by OP4.01, OP4.10, OP4.12 and the Bank's Disclosure Policy. Dedicated channels for information dissemination will be established to ensure consistent communication at national, subnational and local levels throughout the Project. Safeguard instruments including the ESMF (and its Annexes) are disclosed in a language and format accessible to people, communities and civil society who may be interested in, or affected by, project activities to ensure sufficient understanding of the project activities, potential impacts and management arrangements, as well as the grievance redress mechanism.

Disclosure occurs through:

- project concepts are disclosed during the preparation phase to gather feedback and input from local communities and other stakeholders on the proposed activities and safeguard measures.
- assessment documents (e.g. Limited ESIA) are disclosed during activities preparation and prior to their final review and approval;
- final safeguard documents are disclosed to inform local communities of implementation measures and how their concerns have been considered.

The WaSH PMU and Water PNG are responsible for managing information dissemination, overseeing public consultation and assuring compliance to guidelines and procedures set out by safeguard instruments and ensure relevant personnel are trained. Community consultation will follow the procedures described below:

- Consultation is to commence with the posting of a Notice of Consultation which must be placed in a public place, two weeks before the consultation meeting. The Notice must state the reason for the consultation, the date and place of the consultation and who is invited to attend.
- Before the meeting commences a Chairman normally from the LLG is appointed and the language of the meeting determined. A secretary is also required to be present to record the names of the attendees and comments made and answers provided. The language chosen should be understandable to the attendees.
- At the beginning of the consultation the Chairman explains the purpose of the meeting and how it is to be conducted.
- The project is then introduced by the Technical team and the layout and components explained which is also displayed diagrammatically on a large plan that is visible to all.
- The meeting is then opened for discussion from the floor. Discussion can be in support or opposition to the project or there may be suggestions for change to the design or layout of the sub-project.
- All comments and answers are recorded.

- At the end of the consultation the implementation arrangements and other opportunities for consultation and contact details for project personnel are given out.
- A record of the consultation is then written up with a list of attendees, their gender and occupation. A record of the comments and answers and any issues that could not be resolved is included in the text.

H.3 Indigenous Peoples Communities Consultation

Under OP 4.10, World Bank project support requires that the project borrower undertake a process of free, prior and informed consultation that results in a collective expression by Indigenous Peoples communities of broad community support for the project. The modality, methodology and extent of consultations may vary with project context. Where the number or dispersion of Indigenous Peoples necessitates consultation on a sample basis, an explicit consultation strategy is devised to ensure appropriate representation. Generally, the consultation process is:

- Conducted in a manner allowing Indigenous Peoples communities to openly express their preferences or concerns without intimidation or trepidation;
- Conducted in a timely manner, such that the preferences or concerns raised by Indigenous Peoples communities may be considered before project design decisions or implementation arrangements are finalized;
- Conducted only after Indigenous Peoples communities have been provided, and have had sufficient opportunity to consider, relevant information about the project;
- Conducted in a manner that is inclusive, with special consultation arrangements included where necessary to obtain the preferences or concerns of women, the elderly, or others who customarily may not be expected or allowed to participate in community meetings.

A summary (including date, location, approximate number and status of persons in attendance, and summary of issues discussed and any agreements reached) is prepared and recorded for each consultation meeting. Consultations may be undertaken as part of the social assessment process or as a separate set of activities.

I. PROJECT IMPLEMENTATION ARRANGEMENTS, RESPONSIBILITIES AND CAPACITY BUILDING

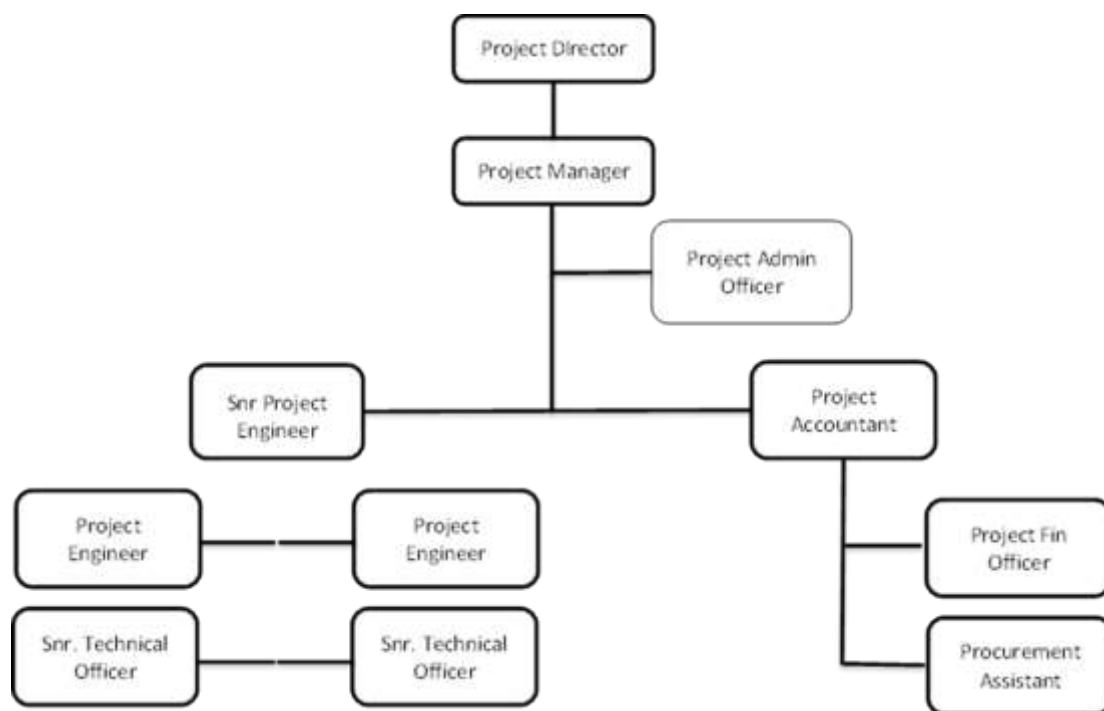
I.1 WaSH Project Management Unit

The WaSH PMU responsible for implementing subprojects under Component 2 will be a new entity and initial capacity is expected to be weak. Apart from immediately strengthening the WaSH PMU with a minimum complement of specialist consultants to enable it to undertake the implementation and management of subprojects, an objective of the WSSDP is to support its overall establishment and capacity strengthening.

For project implementation purposes, the WaSH Sector Coordinator and the three core staff of the WaSH PMU will be recruited. The project will support a full complement of technical assistance consultants to support the WaSH PMU team. These are expected to include technical assistance in, amongst others, rural WaSH, institution and capacity development, monitoring and evaluation, communications, environmental and social safeguards, financial management and procurement.

I.2 Water PNG Project Management Unit

Water PNG will establish a PMU (PMU-WPNG) to implement subprojects under Category 3. A similar arrangement was adopted by Water PNG for its previous donor funded projects. The PMU will be located within the WPNG Engineering and Major Projects Division and will have the following structure.



The personnel responsible for project implementation would include personnel from units of Water PNG relevant to project activities (infrastructure investments, utility management, financial management, procurement and contracts management, environment and social safeguards). The project will support a complement of technical assistance consultants to support the PMU-WPNG, which may include technical assistance in environmental and social safeguards.

Water PNG has been operating as a fully state-owned Commercial Statutory Authority since 1987 and has a track record in planning, designing, constructing, managing and commercially operating water supply and sewerage services in various provincial and district towns. Between 1994 and 2013, Water PNG has implemented about K210 million (approx. US\$80 million) of development projects, about K120 million (approx. US\$45 million) are donor/lender projects.

I.3 Capacity Building

Water PNG has previous experience in implementing donor-assisted programs including those funded by the Asian Development Bank (ADB); however its experience with the World Bank safeguards environment is limited. Water PNG's construction supervision experience (including safeguards implementation) is adequate for the project.

Capacity building within Water PNG will focus on training project engineers in procurement and management of consultants for preparation of various subproject safeguards instruments including ESIA's, IPPs (if necessary) and Social Assessments. In addition training will include procedures for voluntary land donation and community consultation (including with indigenous peoples). A nominal budget of USD25,000 per annum has been allocated for this training effort, with the training program to be designed during implementation.

I.4 Monitoring and Evaluation

At the project level, the results framework forms the basis to track the progress of activities and their outcomes towards meeting the WSSDP objectives. The WaSH PMU and Water PNG will submit to the World Bank semi-annual reports that would provide an overview of the progress made and highlight issues that need attention. WSSDP will provide project implementation entities with technical assistance to support reporting, monitoring and evaluation, environmental and social safeguards audits and construction supervision.

Project implementation oversight will be provided by a multi-stakeholder WaSH Task Force. The Task Force originally oversaw the development of the National WaSH Policy. Given this good perspective of the Policy and due to its broad representation amongst the water sector stakeholders, it is uniquely positioned to provide a high level oversight of the project.

Annex 1

Screening Form for Potential Environmental & Social Safeguards Issues

This form is to be used by the Implementing Agency to screen potential environmental and social safeguards issues in subprojects, determine Bank policies triggered and the instrument to be prepared.

Subproject Name	
Subproject Location	
Subproject Proponent	
Subproject Type/Sector	
Estimated Investment	
Start/Completion Date	

Questions	Answer		If Yes WB Policy triggered	Documents Required if Yes
	Yes	No		
Are the subproject impacts likely to have significant adverse environmental impacts that are sensitive, ¹ diverse or unprecedented? ² Please provide brief description:			<i>OP 4.01 Environmental Assessment Category A</i>	Not eligible for financing
Do the impacts affect an area broader than the sites or facilities subject to physical works and are the significant adverse environmental impacts irreversible? Please provide brief description:			<i>OP 4.01 Environmental Assessment Category A</i>	Not eligible for financing
Is the proposed subproject likely to have minimal or no adverse environmental impacts? ³ Please provide brief justification.			<i>OP 4.01 Environmental Assessment Category C</i>	No action needed beyond screening

¹ Sensitive (i.e., a potential impact is considered sensitive if it may be irreversible, e.g., lead to loss of a major natural habitat, or raise issues covered by OP 4.04, Natural Habitats; OP 4.36, Forests; OP 4.10, Indigenous Peoples; OP 4.11, Physical Cultural Resources; or OP 4.12, Involuntary Resettlement; or in the case of OP 4.09, when a project includes the manufacture, use, or disposal of environmentally significant quantities of pest control products).

² Examples of projects where the impacts are likely to have significant adverse environmental impacts that are sensitive, diverse or unprecedented are large scale infrastructure such as construction of new roads, railways, power plants, major urban development, water treatment, waste water treatment plants and solid waste collection and disposal, etc.

³ Examples of projects likely to have minimal or no adverse environmental impacts are supply of goods and services, technical assistance, simple repair of damaged structures, etc.

Questions	Answer		If Yes WB Policy triggered	Documents Required if Yes
	Yes	No		
Is the subproject neither a Category A nor Category C as defined above? ⁴ Please provide brief justification.			<i>OP 4.01 Environmental Assessment Category B</i>	Limited ESIA
Are the subproject impacts likely to have significant adverse social impacts that are sensitive, diverse or unprecedented? ⁵ Please provide brief description.			<i>OP 4.01 Environmental Assessment Category A</i>	Not eligible for financing
Will the subproject adversely impact physical cultural resources? ⁶ Please provide brief justification.			<i>OP 4.11 Physical Cultural Resources</i>	Address in Limited ESIA and incorporate Chance Find Procedures
Will the subproject involve the conversion or degradation of non-critical natural habitats? Please provide brief justification.			<i>OP 4.04 Natural Habitats</i>	Not eligible for financing
Will the subproject involve the significant conversion or degradation of critical natural habitats? ⁷			<i>OP 4.04 Natural Habitats</i>	Not eligible for financing
Does the subproject construct a new dam or rely on the performance of an existing dam or a dam under construction?			<i>OP 4.37 Dam Safety</i>	Not eligible for financing

⁴ Projects that do not fall under Category A or Category C can be considered as Category B. Examples of Category B subprojects include small scale *in-situ* reconstruction of infrastructure projects such as road rehabilitation and rural water supply and sanitation, small schools, rural health clinics, etc.

⁵ Generally, subprojects with significant resettlement-related impacts should be classified as Category A. Application of judgment is necessary in assessing the potential significance of resettlement-related impacts, which vary in scope and scale from subproject to subproject. Subprojects that would require physical relocation of residents or businesses, as well as subprojects that would cause any individuals to lose more than 10 percent of their productive land area, often are classified as Category A. Scale may also be a factor, even when the significance of impacts is relatively minor. Subprojects affecting whole communities or relatively large numbers of persons (for example, more than 1,000 in total) may warrant Category A, especially for projects in which implementation capacity is likely to be weak. Subprojects that would require relocation of Indigenous Peoples, that would restrict their access to traditional lands or resources, or that would seek to impose changes to Indigenous Peoples' traditional institutions, are always likely to be classified in Category A.

⁶ Examples of physical cultural resources are archaeological or historical sites, including historic urban areas, religious monuments, structures and/or cemeteries, particularly sites recognized by the government.

⁷ Subprojects that significantly convert or degrade critical natural habitats such as legally protected, officially proposed for protection, identified by authoritative sources for their high conservation value, or recognized as protected by traditional local communities, are ineligible for Bank financing.

Questions	Answer		If Yes WB Policy triggered	Documents Required if Yes
	Yes	No		
Does the subproject procure pesticides (either directly through the project, or indirectly through on-lending, co-financing, or government counterpart funding), or will it affect pest management in a way that harm could be done, even though the project is not envisaged to procure pesticides?			<i>OP4.09 Pest Management</i>	Not eligible for funding
Does the subproject involve involuntary land acquisition, loss of assets or access to assets, or loss of income sources or means of livelihood? Please provide brief justification.			<i>OP 4.12 Involuntary Resettlement</i>	Abbreviated Resettlement Action Plan
Are there any Indigenous Peoples' communities present in the subproject area and are they likely to be affected by the proposed subproject negatively or positively? Please provide brief justification.			<i>OP 4.10 Indigenous Peoples</i>	Indigenous Peoples Plan
Will the project have the potential to have impacts on the health and quality of forests or the rights and welfare of people and their level of dependence upon or interaction with forests; or does it aim to bring about changes in the management, protection or utilization of natural forests or plantations? Please provide brief justification.			<i>OP4.36 Forestry</i>	Not eligible for financing
Will the project have the potential to have significant impacts on, or significant conversion or degradation of critical natural forests or other natural habitats?			<i>OP4.36 Forestry</i>	Not eligible for financing
Is there any territorial dispute between two or more countries in the subproject area and in the area of its ancillary aspects and related activities?			<i>OP7.60 Projects in Disputed Areas</i>	Not applicable
Will the subproject and its ancillary aspects and related activities, including detailed design and engineering studies, involve the use or potential pollution of, or be located in international waterways? ⁸			<i>OP7.50 Projects on International Waterways</i>	Not applicable

⁸ International waterways include any river, canal, lake or similar body of water that forms a boundary between, or any river or surface water that flows through two or more states.

Questions	Answer		If Yes WB Policy triggered	Documents Required if Yes
	Yes	No		
Are there any siting issues for subproject infrastructure (eg. flood prone land)?			NA	Alternatives analysis

Conclusion and Safeguards Instruments Required

The subproject is classified as a Category _____ project as per World Bank OP 4.01, and the following safeguard instruments will be prepared:

1. _____
2. _____
3. _____
4. _____
5. _____

Annex 2

Resettlement Policy Framework

A. Introduction

In consideration of the complex land acquisition arrangement in PNG, the project has been designed to avoid to the greatest extent the need to use land other than Government owned land. Where non-Government land may be required, the project would screen out these sub-projects from project support except in circumstances where individuals or customary groups (far more likely in PNG as 97% of land holding is under customary title) would be able to donate the land or enter a negotiated agreement (such as a lease) with Water PNG. Involuntary land acquisition in PNG is extremely time consuming and can lead to social unrest and substantial project delays.

A part of the sub-project identification process will include confirmation that the small areas of land required will be provided via a negotiated settlement. Because of the small scale nature of the infrastructure and that the local community will be the direct beneficiaries of the investments, negotiated settlement is expected to occur in most, if not all, occasions. Indeed, the project will not fund projects where involuntary resettlement is proposed.

Notwithstanding this, there are two instances where it is possible that involuntary land acquisition may be required, namely:

1. If additional land, for example for a rising main or other infrastructure, is required and the landowner is not a beneficiary of the project and the pre-requisites for negotiated settlement/VLD are not satisfied, or
- 2. in an instance where, for example, land access had been negotiated and agreed but then the land owner rescinds this agreement once the sub project has commenced; thereby compromising project outcomes

In such instances, the requirements of this Resettlement Policy Framework (RPF) will need to be implemented.

B. Project Description

The WSSDP concept and design are aligned to the current status and pace of development in the different water sub-sectors of rural water, rural sanitation, urban water and urban sanitation in Papua New Guinea. In rural situations, there are currently no systematic or integrated planning or financing mechanisms in place that could provide for comprehensive national planning and decision making, financing and implementation of water and sanitation infrastructure. Consequently, the focus would be on building the institutions and establishing district level WaSH planning and decision making, before beginning to scale up the pace of infrastructure investment to increase access. On the other hand, infrastructure investment to increase access in urban water supply can be undertaken utilizing the existing institutional, implementation and service provision structure of Water PNG. With regards to urban sanitation, most of the districts and provincial towns are relatively small and of low density such that improved septage management and hygiene behavior are likely to be more appropriate efforts than infrastructure investments in sewerage systems.

The overall aim of the WSSDP is to support the implementation of the National WaSH Policy. This will begin to put in place the first national level WaSH sector-wide policy, development planning, management and monitoring framework in PNG. The WSSDP will support the development, establishment and strengthening of national sector institutions (in particular the WaSH PMU) and sector tools (strategies, plans and sector instruments) that will form the management framework of the sector as envisaged in the National WaSH Policy.

The ultimate objective is to increase access to, and improve the quality of, water and sanitation services to the population of PNG as well as improve hygiene behavior and practices. Consequently, the Project will work simultaneously at the service provision level – in the rural and urban areas respectively.

The WSSDP will coordinate with Government, development partners and NGOs. Necessarily, the Project will need to be coordinated with the overall activities and efforts of the Government's own direct efforts to implement or

support the implementation of the National WaSH Policy. The Bank will also coordinate support with existing and future development partners active in supporting the WaSH sector in general, and supporting the implementation of the National WaSH Policy in particular. Various NGOs are active in supporting community-level WaSH schemes. These NGOs are expected to be invaluable partners that will help the capacity building of new district-level government institutional structures and facilitate the subsequent rural water and sanitation investments. The various existing methodologies, processes and management arrangements of rural water and sanitation in PNG pioneered by these NGOs are expected to be the basis for the eventual establishment of common rural water and sanitation guidelines by the WaSH PMU.

Three major components are proposed for the project: (1) National WaSH Policy Component, (2) Rural and Peri-urban Water Supply and Sanitation (WSS) Component, and (3) Urban WSS Component. The rural and peri-urban WSS component, and the urban WSS component, are in turn subdivided into a policy implementation or institutional strengthening subcomponent and an associated infrastructure investment subcomponent. Given the phasing and pace of support to the different sub-sectors component funding allocation is expected to be largest in the urban WSS component. A fourth component is proposed to respond to climate and disaster risks. These components are described in further detail below.

Component 1: Institutional structures for the implementation of the WaSH Policy

This component is focused on supporting the development of the key sector institution i.e., the WaSH PMU, and key sector tools (strategies, plans and sector instruments) that will form the management framework of the sector as envisaged in the National WaSH Policy. The National WaSH Policy provisions for the development of comprehensive sector institutions and sector tools over a period of time. Starting from a nascent setup, the WaSH PMU is envisaged to be developed over time into a full-fledge national sector authority (NWSHA) responsible over a range of sector issues – development and investment planning and coordination, monitoring, regulations, etc.

Component 2: Rural and Peri-urban Water and Sanitation

This component is focused on supporting the WaSH PMU to develop a framework for the coordination, planning and implementation of rural and peri-urban WSS in districts and in peri-urban areas. It is envisaged that the delivery of services will be through the sub-national authorities, in particular the new District Development Authorities (DDAs). The primary role of the WaSH PMU is thus to coordinate and provide a systematic national framework (including common policies, guidelines, financing frameworks and mechanisms, monitoring, regulations, etc.) and supporting the subnational authorities for rural and peri-urban WSS development and investments. Support towards building the national framework is addressed in Component 1. Component 2 will focus on supporting and building the capacity of the new district level authorities (DDAs) to plan, develop, implement and monitor rural WSS. District-wide systematic WaSH planning, development and monitoring is not yet practiced. This component will begin by piloting the development of District WaSH Development Plans in up to four selected pilot districts, as a means of trial out and provide lessons on how the WaSH PMU could work through subnational authorities towards a systematic increase of access to services in districts. At the same time, the development of these plans provides the opportunity for building the capacity of DDAs in WaSH. Upon the successful development of district plans, selected investments in rural WSS based on these plans are expected to be undertaken.

Component 3: Urban Water and Sanitation

This component is focused on supporting the expansion of WSS services to urban areas, specifically in district and provincial towns where Water PNG has the mandate to provide these services. It is envisaged that a rolling program of design and investment support for new provincial and district towns schemes (planned to be implemented in batches) would be carried out. Investment will commenced with a first priority and 'shovel-ready' town scheme, which has been designed during project preparation, to test out and pave the way for a smooth rolling investment program. Given the water security and sustainability issues linked to climate change risks, scheme designs will include optimal design options for water conservation, energy efficiency, and source sustainability. Other town schemes, to be identified from the pool of currently unserved district and provincial towns, will follow suit during implementation. This component will also support technical and financial improvements in Water PNG's existing operations. The existing operations of Water PNG would be assessed through technical audit and a program of technical and performance based improvements developed and implemented with project financing support. This component will also support a critical assessment of Water PNG's existing business and operating model, in particular to identify options that could be adopted in the future to ensure continual financial viability as it expands service provision new (and generally small and less profitable) district towns.

Component 4: Contingent Emergency Response

Given PNG's vulnerability to climate and disaster risks this 'zero component' (initially without any allocated funding) is proposed to be included. This Component will allow for the rapid reallocation of funds from other components to provide emergency relief, recovery and reconstruction support in the event of a natural disaster, emergency and/or catastrophic event. Funds potentially reallocated to Component 4 would be disbursed either against a positive list of critical goods and/or against the procurement of works, and consultant services required to support the immediate response and recovery needs. Implementation will be guided by a Contingent Emergency Response Implementation Plan to be developed as necessary in response to the emergency.

Subproject Typologies

The focus of this RPF is Component 3 which will involve the establishment of basic water supply systems in district and provincial towns across Papua New Guinea (PNG). The target towns have populations in the range 5,000 - 15,000 people with the likely project capital cost in the range of USD3 to 10 million. It is estimated that about 7 to 8 further water supply systems could be financed under the project, chosen from the pool of unserved district and provincial towns under Water PNG's service provision mandate. Out of these approximately 75 towns, the following towns are deemed by Water PNG to be priorities: Aitape, Angoram, Boana / Nawae Bogia, Bulolo, Henganofi, Ialibu, Kerema, Kerowagi, Kupiano, Lufa, Mendi, Minj, Misima, Namatanai, Nebilyer, Palmalmal, Pangia, Vanimo, Wapenamanda and Wau. A batch of towns will be chosen for investment financing based on Water PNG's priority and the available financing envelope.

The essential components of these water supply systems are expected to include the following:

- a raw water collection point such as a bore or stream. Many towns in PNG have established water supply bores; however there is no associated distribution system. Alternative raw water sources may include nearby streams with sufficient sustainable flow;
- pumping stations and rising mains to abstract the water from the source and transfer it to the treatment facility and/or water storage facility;
- water treatment facilities. The scale and complexity of these facilities depend on the quality of the raw water source. For groundwater sources this might be as simple as chlorine dosing; whereas surface water sources would likely require a package water treatment plant with facilities for clarification (suspended sediment removal) and purification;
- a water storage facility. This will generally comprise an above ground reservoir situated in an elevated position relative to the end users to allow distribution of treated water by gravity where possible;
- a pipe network for distribution of water to consumers (which may be private houses or commercial establishments) and other usage points (such as fire hydrants).

Subject to successful development of District WaSH Development Plans under Component 2, some rural WSS investments will be funded through community participatory approaches. The systems to be built will be very small comprising gravity-fed reticulated systems, rainwater tanks or hand-pumped wells to service small villages.

Investments in sanitation will be mostly in rural situations under Component 2 and will be limited to hygiene behavior education including technical assistance with simple technologies, i.e. pit latrines. Investments in urban sanitation infrastructure will be limited to rehabilitation of existing Water PNG sewerage systems.

C. Land Acquisition in PNG

Since the 1970s, Papua New Guinean legislation covering many aspects of land use, compulsory purchase, customary land dealing, customary land group incorporation, land dispute mediation, land lease and land titles has been enacted. There are now well recognised legal and policy procedures in place that conform to the requirements of the Constitution of Papua New Guinea and respect customary law and customary rights in land. The policy consistently followed in land matters in Papua New Guinea is that all transactions relating to land should first be conducted within the framework of a custom based mediation.

Land acquisition and resettlement is made unusually difficult in Papua New Guinea by a number of inter related factors. These include:

- The existence of complex systems of customary land tenure, customary leasehold rights, and usufruct rights

- Land ownership is vested in primary corporate groups, such as clans, usually organized according to local kinship principles
- Diffuse or secondary ownership rights vested in kin groups linked by horizontal ties with corporate landowning groups
- Complex systems of individual usage rights within corporate land owning groups
- Kin-linked methods of traditional ownership transmission which join land to past, present and future generations
- Inheritance patterns which embody the concept of future generations trust

Land ownership in Papua New Guinea combines, in a complex and culturally variable way, principles that are largely absent from modern systems of land ownership. Ninety seven percent of land in Papua New Guinea is still held under customary systems of land ownership. The intimate details of customary land and of many generations of land use are an integral part of the memory of the land owning group. At the core of these difficulties attendant to land acquisition lie the legal and moral differences between customary ownership and modern ownership. Land acquisition implies a transaction that has no equivalent in customary title. In the modern system a sale is once and for all. For traditional landowners in Papua New Guinea the terms and conditions of sale may be subject to review by future generations, descendants of the original sellers, who may seek to renegotiate the sale and impose new conditions not envisaged by either the original sellers or buyers.

For the majority of the population in Papua New Guinea land is their only significant resource and a very large proportion of the rural population depend on subsistence food production based on this land resource. This situation is unlikely to change for many decades into the future. With a high population growth rate, land is likely to become an increasingly scarce resource for many rural communities. The sale of land represents, in the vast majority of cases, the loss of the patrimony of future generations. Accordingly, future generations may be vigorous in their pursuit of redress of what they see as the inadequate land sales settlements of past generations.

D. Justification for Preparing a Resettlement Policy Framework

Subproject identification, detailed design of the engineering works and precise siting of infrastructure works for the projects has not been determined, and will be decided largely based on feedback from consultations with stakeholders and affected parties (APs). Furthermore, a fundamental part of the project identification process will be ensuring that there is a high level of community demand and “ownership” of the project. The bulk of land required for water supply infrastructure established under Component 3 sub-projects is expected to be Government-owned, hence acquisition is not required by a state-owned enterprise, which is Water PNG. In some instances however (eg. installation of rising mains or development of stream-based water sources) private or customary land may be traversed. In these rare circumstances voluntary land donation (VLD) or other negotiated agreement (eg. lease, easement) will be the mechanism. Under Component 2 in rural situations VLD will likely be the primary mechanism. Any VLD will follow guidance provided in the Environmental and Social Safeguard Instruments for the Pacific Islands (ESSIP)

A Resettlement Policy Framework (RPF) therefore is the appropriate social safeguard instrument. No physical displacement is envisaged.

The RPF is expected to be applied primarily in two instances; neither of which are considered likely, but both of which are in theory, possible:

1. If additional land, for example for material sourcing, is required and the landowner is not a beneficiary of the project and the pre-requisites for negotiated settlement are not satisfied
- 2. in an instance where, for example, land access had been negotiated and agreed but then the land owner rescinds this agreement once the sub project has commenced; thereby compromising project outcomes

In either of these circumstances, an Abbreviated Resettlement Plan (ARAP) will be developed as per Operational Policy 4.12, Annex A paragraph 22. The ARAP will form part of the agreement between the GoPNG and the World Bank.

E. Objectives, Definitions and Key Principles

The guiding principles for the project are that involuntary resettlement is to be avoided or minimised. APs should be better off or at least as well off as before the project. All persons affected by the project are to be consulted throughout the project, have the opportunity to participate in planning, and to share in project benefits. The project should contribute to sustainable development.

These principles entrain a process of early identification of stakeholders, and in particular of APs; frank and effective public disclosure of any known impacts; consultation and participation to avoid or mitigate negative impacts identified, and to ensure that no person or impact is overlooked; fair, transparent and timely intervention to support APs during implementation, resettlement and restoration of livelihoods; and commitment where possible to improve upon the status quo, particularly for those who may be vulnerable by reason of poverty, ethnicity, gender, age, disability, or social status.

The over-riding objective is to avoid any resettlement impacts via subproject identification, and effective infrastructure design. To ensure that the projects contribute to the objective of sustainable development, Water PNG will adopt a comprehensive disclosure and consultation process that includes all stakeholders. The consultation process with APs will reveal all foreseeable impacts, and will elicit AP concepts of how mitigation options and resettlement planning can contribute to their aspirations for sustainable restoration or improvement of their livelihoods. In the unlikely event of loss of land, and land-based assets, the aim will be to replace like for like, and if this is not possible, to compensate for lost land, assets and income, and meet the costs of relocation and restoration of livelihoods. Restoration includes not only physical assets, but also social and cultural assets. If there is a risk of disruption of these values, which are often disproportionately encountered by women, the APs will contribute to selection of mitigation and resettlement options to ensure policy objectives are met.

F. Legal and Regulatory Framework

For the full legal and regulatory framework relevant to environmental and land related matters, please refer to Section E2 and E3 of this ESMF. The policy framework is based on:

- a) The Constitution of the Independent State of Papua New Guinea
- b) The Land Act (1996)
- c) Land Disputes Mediation Act
- d) Village Courts Act
- e) WB OP 4.12 on Involuntary Resettlement

National Legislation

The Land Act 1996 is the fundamental legislation to manage land issues in Papua New Guinea. The country has only 3% of the land that is under the state/private with 97% of the land still being under customary land tenure. Therefore, for the great majority of land in PNG, no legal oversight/management exists. For the purpose of the Project, the relevant provisions in the Act are in Division 10, which deals with Urban Development Leases. Where there is an urban development lease on a site and the road easement and allotments are clearly marked and identified, the land is confirmed to be under state (or private) ownership and therefore there is no infringement on

customary land ownership. Where the land is owned by the Government (such as road RoWs in urban areas etc), no acquisition will be required. Where the land is privately owned, land access will be negotiated.

The RPF does not contradict any clause of the state law. When preparing an ARAP under the provisions of this RPF, a full assessment of any local legislation/policy and/or established and accepted practices will need to be completed and fully documented in the ARAP. Where PNG legislation is not fully equivalent with requirements of World Bank OP 4.12, the latter will prevail.

World Bank Policy

WB resettlement policy starts from the principle of restoration or improvement of livelihoods at replacement cost, rather than current value, recognising not only financial and physical assets, but also the environmental, social, and cultural assets of an individual, irrespective of gender, ethnic or social status, in the resettlement context. The Involuntary Resettlement policy enjoins avoidance and minimisation of adverse impacts not only because it is less costly, but also because it avoids damage to the less tangible and hard-to-value aspects of livelihoods and cultures. WB resettlement policy has a positive objective of sustainable development, with particular regard for the vulnerable.

Legal Gap Analysis

The gaps between the PNG laws and OP 4.12 requirements on land acquisition and resettlement have been identified and necessary gap-filling measures developed to meet the requirements of OP 4.12.

J.

Table 1 – Legal Gap Analysis

PNG Laws	World Bank Safeguard Policies	Gap-Filling Measures
There are no provisions to prepare RP based on meaningful consultations with DPs, including the poor, the landless, elderly, women, and other vulnerable groups.	OP 4.12 requires that RPs must be prepared based on consultations with APs, and that poorer and vulnerable people are also consulted and informed of their entitlements and resettlement options.	ARAPs will be prepared in consultation with APs, including vulnerable groups, and disclosed by Water PNG; translated or summary versions will be available at the provincial, district and local level. Local clan leaders whose members are affected will also receive a copy of the ARAP.
There are no provisions to improve or at least restore the livelihoods of all DPs.	It is necessary to improve or at least restore livelihoods of APs by a range of strategies targeted at APs. Nobody is to be worse off as a result of the development project.	Where such impacts will be experienced, ARAPs will include measures for improvement or at least restoration in living standards of APs to pre-project levels.
Very limited provisions to provide assistance/compensation to APs who lose access to non land assets (e.g. Valuer General has 2008 Schedule for valuation).	Requires that APs are compensated for all losses, including non-land assets, at full replacement cost.	The project will follow the principle of replacement cost for compensation of affected assets. Valuer-General will provide updated schedule for valuation of project affected assets. Where schedules are more than 12 months old, these rates will be verified and updated.
There is no requirement for the monitoring and assessment of resettlement outcomes.	OP 4.12 requires that resettlement outcomes be monitored and assessed.	ARAPs will include indicators and baseline data to monitor impacts on living standards of APs. The monitoring reports will also be disclosed including to APs.

G. Approach to land acquisition

The approach adopted by the project will: (i) focus on avoiding any need for land other than Government owned land such as public sites and roads etc.(ii) where the need for land to facilitate the project cannot be avoided, an Abbreviated Resettlement Action Plan (ARAP) will be prepared which documents one of the three applicable process, namely, Voluntary Land Donation, Negotiated Settlement (Leases) or (albeit considered exceptionally unlikely), involuntary land acquisition.

These approaches and their key characteristics are shown in Table 2 below.

Table 2 – Land access arrangements and key characteristics

Land access arrangement	Key characteristics and documentation requirements
Voluntary Land Donation (VLD)	<ul style="list-style-type: none"> • Minor impacts <10% impact on any individual household or land user • ARAP to be prepared to document compliance with VLD protocol (see Appendix 1 of this RPF): <ul style="list-style-type: none"> ○ Establish informed consent of the person(s) donating the land. Power of choice is a fundamental foundation of VLD ○ Land owner(s) donate the land for the purposes of the project which would benefit the community ○ Determine and document the appropriateness of VLD in the context of Project. ○ Due diligence on owners and users of land donated. ○ Full consultation and disclosure. ○ Document the legal transfer of land donated. ○ Grievance Redress Procedure and Mechanism. ○ Any differential impacts (where negative impacts are unequally shared) would not exist, or would be very minor and compensated
Negotiated arrangements – generally long term leases	<ul style="list-style-type: none"> • Not significant impacts • ARAP documenting: <ul style="list-style-type: none"> ○ Establish informed consent of the person(s) donating the land. Power of choice is important ○ Land owner(s) provide a legally binding agreement such as a lease or right of way over the land for the purposes of the project. ○ May be accompanied by one-off or ongoing payment or other compensation for the provision ○ Due diligence on owners and users of land to ensure correct parties are a part of the negotiated agreement ○ Full consultation and disclosure (possibly without financial terms) ○ Documentation of negotiated arrangement required. ○ Grievance Redress Procedure and Mechanism.
Involuntary Land Acquisition	<ul style="list-style-type: none"> • No projects supported by the Bank project will create significant resettlement (or environmental impacts) • Detailed ARAP to be prepared which documents: <ul style="list-style-type: none"> ○ Description of the project activity causing involuntary resettlement and explanation of efforts to avoid or minimize involuntary resettlement associated with the project (alternative project designs considered). ○ Range and scope of potential adverse resettlement impacts. ○ Socioeconomic survey and baseline census survey information. ○ Review of relevant laws and regulations relating to land acquisition and involuntary resettlement (see section above on legal and regulatory framework for more details). ○ Description of asset valuation procedures and specific compensation rates (or alternative measures) for all categories of affected assets. ○ Other assistance measures, if any, necessary to provide opportunities for livelihood restoration for displaced persons. ○ Assistance to affected commercial enterprises. ○ Eligibility criteria for compensation and all other forms of assistance. ○ Relocation arrangements, if necessary, including transitional support. ○ Resettlement site selection, site preparation, and measures to mitigate impacts on host communities, if necessary. ○ Restoration or replacement of community infrastructure and other services. ○ Land donation arrangements and documentation requirements, if relevant. ○ Organizational arrangements for implementation. ○ Consultation and disclosure requirements and arrangements. ○ Resettlement implementation schedule. ○ Costs and budget. ○ Monitoring arrangements. ○ Grievance procedures. ○ Summary entitlements matrix.

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H. Preparing ARAP

Wherever only Government land is proposed to be used for the project, documentation is to be submitted which demonstrates that the proposed infrastructure sits wholly within this land and that no other party has a claim over this land. This documentation will need to meet the requirements of the World Bank.

Wherever non-Government land is required by the project, an ARAP will be prepared which documents the method used to either acquire the land or acquire access to the land to facilitate the project. An ARAP, will document the matters identified in Table 2 above. A Voluntary Land Donation (VLD) protocol is held at Appendix 1 of this RPF; where VLD is applied, the ARAP will need to fully document compliance with the VLD protocol.

- The ARAP(s) will be prepared having regard to the following: Responsibility for preparation, implementation and monitoring of ARAPs (including responsibility for meeting all associated costs with their implementation), in accordance with this RPF, rests with the Water PNG.
- As necessary, Water PNG will coordinate actions with any other agencies involved to ensure timely and effective ARAP implementation.
- Preparation of the ARAP begins as soon as it is determined that non-government land is essential to complete any of the project activities and shall be finalized prior to the commencement of any works to carry out said project activities. The Water PNG will carry out, or cause to be carried out, a census survey to identify and enumerate Displaced Persons and to identify and inventory land and other assets to be required. The census survey must cover 100% of the displaced persons. The census survey also establishes whether any displaced persons are significantly affected by loss of productive land, whether any commercial enterprises are affected, or whether any households will be required to physically relocate.
- The ARAP will be prepared in accordance with the policy, principles and planning and implementation arrangements set forth in this RPF. The ARAP is to be based on accurate baseline census and socioeconomic survey information, and establishes appropriate mitigation measures (e.g., compensation at full replacement cost for loss assets, transitional assistance for relocation, and transitional assistance for livelihood restoration, and transitional assistance for commercial enterprises) for all relevant categories of adverse impacts.

I. Communal Land Acquisition – Guiding Principles

Given the prevalence of customary (communal land) in PNG, the following guidance is provided for the preparation fo ARAPs for this project:

- a) The World Bank's Voluntary Land Donation protocol (see Appendix 1) is to be applied in full where land donation anticipated to allow project delivery.
- b) Alternatives to land acquisition are considered. Especially where replacement land is scarce or non-existent, or where customary land tenure is deemed inalienable, negotiated agreements for long-term lease, even for alternative infrastructure siting, should be considered.
- c) Where communal land must be acquired, collective compensation may be appropriate. Under such conditions, compensation is used solely for appropriate community purposes, or is distributed equitably among community members. The ARAP describes arrangements for usage of collective compensation.
- d) Individual users and occupants of acquired communal land are identified in the census prepared for the ARAP and the ARAP describes mitigation measures or negotiated agreements providing for restoration of their livelihoods or living standards.
- e) Where replacement land does not exist, it will be impossible to establish a technical valuation for replacement cost. The ARAP will describe alternative means used for valuation. This may include negotiated agreement with affected communities.
- f) If relevant, the ARAP describes any changes that may occur regarding land use and tenurial arrangements for remaining communal land in project-affected areas.
- g) The ARAP describes a process by which conflicting claims to ownership or use rights will be addressed.

J. Entitlements

Criteria Defining Displaced Persons

Eligibility of an individual entitlements under this RPF will relate to their:

- Loss of land, whether an owner, lessee or informal occupant.
- Loss of trees or other plants, whether on owned, leased or informally accessed land.
- Loss of land-based improvements – houses, shelters, business buildings, also irrespective of the ownership status of the land.
- Loss of access to commons and reserves, e.g. road reserves, whether or not legally encroached, and restricted areas.

Eligibility for loss of non-land assets, whether temporary or permanent, will be recognised for project-induced impacts on:

- An individual's business or income.
- Soil or water quality changes that impact the individual's livelihood activities in the direct or indirect impact area.
- Air, light or noise pollution, or restrictions on access to social or economic resources that impact property values and amenity.
- Access to resources due to quarrying operations.
- Any other assets or elements of livelihoods recognised in the PNG law and in WB Operational Policy that may be discovered during disclosure and consultation.

Persons demonstrating that they will suffer losses from any of these causes as at the cut-off date for entitlements will be regarded as eligible for resettlement assistance. Losses from encroachments or activities commenced after the cut-off date for the respective projects will not be eligible.

Table 3 summarizes eligibility and entitlements for DPs.

Table 3 – Entitlement Matrix

Type of Impact	Entitled Person(s)	Entitlements
Temporary use of land.	Legal/ customary landowners/land users	Will only occur with agreement with landowners/DPs. Affected landowners/APs will be paid rent on terms negotiated and agreed with them. The land will be returned to respective landowners/APs after its restoration.
Permanent acquisition of land	Legal owner(s)/customary landowners	Landowners will be provided equivalent size and quality of land, or cash compensation at replacement cost.
	Informal settlers (e.g. on land acquired for ROW) with no legalizable rights	DPs will be provided compensation for their damaged non-land assets (e.g. crops, trees, and structures) on project-affected land.

Loss of crops and trees	All DPs irrespective of their legal status	DPs will be given notice to harvest crops and trees before site clearance or removal from required land. If DPs are not able to harvest, they will be paid cash compensation at replacement cost. In case of perennial crops and trees, the compensation will also include loss of income for a period until new crops or trees produce an equivalent income
Loss of structures (only a few roadside markets are expected to be affected)	All DPs (whether having legal title to land or not)	DPs will be provided compensation at replacement cost without deductions for depreciation or salvaged materials and assistance in finding an alternative site. It will be ensured that replacement structures are ready to move before relocation of existing structures. In case business activities are disrupted, the business owners will be provided disruption allowance for the duration of business being disrupted.
Displacement of community structure (if any)	Community representatives as identified by the social impact assessment	Affected structures will be restored in consultation with community or the affected community will be provided with cash compensation at replacement value without deductions for any materials salvaged. Community will be assisted in dismantling and relocating structure/property.
Impacts on vulnerable DPs	Vulnerable DP households identified by social assessment.	Vulnerable households will receive (i) priority employment in project construction and maintenance works; and (ii) additional cash allowance to purchase foodstuffs during the period of income disruption. Amount to be confirmed in the RP for each road/bridge.
Unforeseen impacts	Concerned displaced persons	These will be determined as per the principles of the RF

K. Implementation Arrangements

Implementation arrangements such as a time-bound implementation schedule of all activities relating to involuntary resettlement shall be included at the development of an ARAP. Payment of compensation should be completed at least one month prior to involuntary resettlement. If there is a delay of one year or more between land or asset valuation and payment of compensation, compensation rates will be adjusted for inflation purposes.

Process for negotiation of Voluntary Land Donations (VLD) and Long Term Leases

Clear parameters are defined in the VLD protocol in Annex 1. Water PNG will ensure that the requirements of the protocol are met for land is acquired via VLD. Where land is leased via negotiation, Water PNG will need to ensure the following matters are considered and documented:

- Establish informed consent of the person(s) donating the land. Power of choice is important
- Land owner(s) provide a legally binding agreement such as a lease or right of way over the land for the purposes of the project.
- May be accompanied by one-off or ongoing payment or other compensation for the provision
- Due diligence on owners and users of land to ensure correct parties are a part of the negotiated agreement
- Full consultation and disclosure (possibly without financial terms)
- Documentation of negotiated arrangement required.
- Grievance Redress Procedure and Mechanism.

Additional information will be included in the Project Implementation Manual which will be prepared to guide detailed implementation aspects.

Budget and Costs

Water PNG bears responsibility for meeting all costs associated with involuntary resettlement. Any ARAPs prepared in accordance with this RPF require a budget with estimated costs for all aspects of their implementation. All displaced persons are entitled to compensation or other appropriate assistance and mitigation measures, regardless of whether these persons have been identified at the time of resettlement planning, and regardless of whether sufficient mitigation funds have been allocated. For this reason, and to meet any other unanticipated costs that may arise, the ARAP budget shall include contingency funds, i.e., at least 10% of estimated total costs. Compensation must be paid promptly and in full to the displaced person. No deductions from compensation will occur for any reason. The ARAP is to describe the procedures by which compensation funds will flow from Water PNG to the displaced persons.

Approval of ARAP(s) by the World Bank

All ARAPs will need to be submitted to the World Bank for its clearance and review – and full entitlements delivered - prior to any project works commencing on the land (or affecting any other aspect such as livelihoods) to which the ARAP applies

• Disclosure and consultation on the RPF

Extensive consultation was carried out during the preparation of the project ESMF and RPF including discussion with key stakeholders including Water PNG, other government ministries, local level governments (LLG) and members of potential subproject communities in January 2016. During these consultations, the various issues associated with accessing land for the purposes of project delivery – especially the focus on identification and design of projects so that any land impacts would be avoided - were discussed.

This RPF will be made available on the WB Infoshop and Water PNG websites, and hard copies available at Water PNG (or other appropriate) offices in project areas.

Disclosure and consultation on the ARAP

To ensure that the projects contribute to the objective of sustainable development, Water PNG will adopt a comprehensive disclosure and consultation process that includes all stakeholders during project implementation. The consultation process with APs will reveal all foreseeable impacts, and will elicit AP concepts of how mitigation options and resettlement planning can contribute to their aspirations for sustainable restoration or improvement of their livelihoods. In the unlikely event of loss of land, and land-based assets, the aim will be to replace like for like, and if this is not possible, to compensate for lost land, assets and income, and meet the costs of relocation and restoration of livelihoods. Restoration includes not only physical assets, but also social and cultural assets. If there is a risk of disruption of these values, which are often disproportionately encountered by women, the APs will contribute to selection of mitigation and resettlement options to ensure policy objectives are met.

The ARAP must describe measures taken to consult with displaced persons regarding proposed land acquisition, transitional assistance, relocation arrangements, and other arrangements, and summarizes results of those consultations. Water PNG will also be required to disclose the ARAP- both the draft and final versions – to the displaced persons and the general public in the project area, in a language and location accessible to them. Disclosure of the draft ARAP should occur at least one month prior to Bank review. Disclosure of the final ARAP occurs following WB acceptance.

L. Monitoring Arrangements

Monitoring arrangements will be established in the ARAP to assess the effectiveness of ARAP implementation in a timely manner. Monitoring includes review of progress in land acquisition, payment of compensation, provision of transitional assistance, and functioning of project grievance procedures. The ARAP should establish the frequency of monitoring activities. Monitoring should be conducted by an individual, firm, or community organization not directly affiliated with Water PNG. Any issues or problems associated with ARAP implementation that are observed in the monitoring process will be reported to Water PNG and the WB project team.

Prior to project completion, the monitoring process will assess whether livelihoods and living standards of displaced persons have been improved, or at least restored. If these objectives have not been achieved, Water PNG identifies plans and implements supplemental measures necessary to achieve satisfactory outcomes.

M. Grievance Procedures

During the course of the project it is possible that affected persons or communities may have concerns with the project's social or environmental implementation occurring during construction and possibly during operation.

Any ARAP or other documentation prepared to meet the requirements of this RPF will include details of the specific GRM process applying to that activity. This GRM process will need to ensure that any concerns are addressed quickly and transparently, and without retribution to the affected parties.

World Bank funded projects are required to implement a grievance redress mechanism (GRM) to receive and facilitate resolution of affected peoples' concerns, complaints, and grievances about the project's performance, including concerning environmental and social impacts and issues. The mechanism ensures that: (i) the basic rights and interests of every affected person by poor environmental performance or social management of the project are protected; and (ii) their concerns arising from the poor performance of the project during the phases of design, construction and operation activities are effectively and timely addressed.

In the early stages of engagement, project stakeholders and affected communities must be made aware of:

- how they can access the GRM;
- who to lodge a formal complaint too;
- timeframes for response;
- that the process must be confidential, responsive and transparent; and
- alternative avenues where conflicts of interest occur.

The grievance process is based upon the premise that it imposes no cost to those raising the grievances; that concerns arising from project implementation are adequately addressed in a timely manner; and that participation in the grievance process does not preclude pursuit of legal remedies under national law. Local communities and other interested stakeholders may raise a grievance at any time to the WaSH PMU, Water PNG or the World Bank's Inspection Panel.

Water PNG conducts regular customer surveys at all its operating locations. Its Customer Charter provides for customer feedback, reports and complaints, primarily through their operational branch offices. Water PNG is also currently setting up a national call center (expected to be launched in mid-2016) to which customers will be able to make free calls to provide service feedback, breakage reports and complaints. These surveys and customer feedback channels will form an important part of beneficiary engagement and grievance response during the implementation of the project.

Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent

Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/GRS>.

For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org

ANNEX 1 – VOLUNTARY LAND PROTOCOL

Voluntary Land Donation Protocol

1. Background

This Voluntary Land Donation Protocol (VLDP) has been prepared by the World Bank for the purpose of due diligence. For cases where communities and/or individual landholders have offered to donate their land for the project because it is of benefit to the broader community, the World Bank's Voluntary Land Donation Protocol (VLDP) should be followed. The project team is to exercise their best judgment where voluntary land is offered and conduct due diligence to avoid adverse impacts and reputational risks. Donations are based on the premise that the project benefit will offset or outweigh the loss of the land donated.

VLD is only suitable for community driven projects where the landowner and/or community wish to 'gift' land parcels or small areas for small-scale community infrastructure that will be of direct benefit to the donor's community.

2. When VLD is Applicable

Voluntary donation of land by beneficiary households is acceptable where:

- It has been verified the donation did not result from any form of coercion or manipulation and is offered in good faith;
- The donation does not severely affect the living standards of the community and/or individual landholder responsible for the donation (i.e. impacts are marginal based on percentage of loss and minimum size of remaining assets);
- Alternatives and the viability of other locations or sites have been considered;
- The donation does not result in the displacement of households or cause loss of income or livelihood;
- The landholder/s making the donation will directly benefit from the project;
- Consultation has been conducted in an open and transparent manner and to a degree that the landholder/s can make an informed choice;
- The land is free from disputes regarding ownership or tenure;
- Land transactions are supported through the transfer of titles;
- Full and proper documentation of all consultations, meetings, grievances and actions taken to address grievances has been reviewed and made available;
- Where impacts are minor and other alternative sites are not viable.

3. When VLD is NOT Applicable

VLD is not applicable under the following scenarios:

- Medium/large-scale infrastructure particularly in cases where a government agency or entity that has a statutory obligation to provide the infrastructure and/or services for which the land is required
- Where inadequate consultation with donors results in lack of understanding about the terms and conditions of the donation;
- In lieu of formal procedures for land acquisition where these do not exist;

- Where donor property owners, landowners or customary rights holders do not support, or will not directly benefit from, the Project;
- Where conflicts over land exist, including customary collective ownership;
- Conflicting land titling that make it difficult to establish with certainty who has a right to own, donate and use a specific parcel of land;
- Where donors did not provide their informed consent and were subject to political or social pressure and coerced into making the donation.

4. Process for Voluntary Donation

This section provides guidance on the process for VLD, namely on how to:

- Determine and document the appropriateness of VLD in the project context;
- Verify the requirements of the donation and the formalization of the donation;
- Carry out due diligence on the owners and users of land donated;
- Ensure appropriate consultation and disclosure;
- Establish informed consent of the person donating the land; and
- Establish grievance redress mechanism.

This section outlines the process that should be followed once the threshold considerations set out in Section 1 have been considered, and it has been determined that it is appropriate for the land to be provided to the project by voluntary donation.

It is necessary to follow a clear process for the donation, and to prepare and maintain documents that demonstrate such process. Each step set out below should be addressed in the context of the specific project, and fully documented.

(i) Determine and document that VLD is appropriate in the circumstances of the project.

The team should record the reasons why it thinks that the donation of land is appropriate for the project. In certain cases, only some of the land the project requires will be donated or alternatives to land donation exist. The project team should identify (in as much detail as possible):

- What the land will be used for;
- How much land the project will require on both a permanent and temporary basis;
- How much of the land will be donated;
- What alternatives to donation exist (e.g., right of use, right of way);
- The terms of the donation;
- The identities of the parties who intend to donate;
- The beneficiary of the donation; and
- Any details that are relevant to why donation may be appropriate.

(ii) Verify the requirements to transfer, and formalise the transfer of, the land

It is important to understand the process that should be followed to transfer the land, and appropriate ways to formalize the transfer so as to achieve certainty for both the transferee of the land and the project. In many countries this will require consideration of the legal and administrative requirements but also, particularly in the case of customary land, local and community processes. In some cases these will constitute two different but parallel (and overlapping) systems and a process will have to be established to ensure that the

requirements of each system are satisfied. An important consideration will be how transparent the process and the decision making process actually is, and what can be done to enhance the process.

(iii) Conduct due diligence on who owns and uses the land

Given the specific issues surrounding land ownership and use in the PICs, it is important that the project team carries out careful due diligence to understand the type of land rights that exist in the project area, and to identify any particular issues relating to land ownership and use. Thereafter, a more specific due diligence must be conducted on each parcel of land proposed for donation to identify:

- The owner or owners of the land;
- The users of the land, or any parties that occupy the land (either physically or through ownership of an asset or conduct of livelihood or business activities on the land);
- Any competing claims of ownership or use;
- Structures and assets on the land;
- Any encumbrances on the land.

It is important to: (a) identify the right that is being transferred (an ownership right, a use right, a right of way, etc.); and (ii) check whether the transferee actually has the right s/he claims to have. In many circumstances where careful due diligence has not been carried out, significant conflict has arisen at a later stage when another party claims that they have the same or a competing right. In some circumstances – but not all – the transferee will have documentary evidence of such right. Where no such evidence exists, the due diligence can establish rights by speaking with local community officials and neighbours.

(iv) Disclosure and Consultation

The decision to donate must be taken on the basis of a full understanding of the project and the consequences of agreeing to donate the land. Accordingly, the parties that will be affected by the donation (the owners and users of the land) must be provided with accurate and accessible information regarding what the land will be used for, for how long, and the impact the donation will have on them and their families. It is important that prior written notification indicating the location and amount of land that is sought be provided and that its intended use for the project is disclosed.

Where the intention is to deprive the parties affected by the donation of the land permanently, or for a significant length of time, this must be made clear. It should be noted that in many communities the concept of alienation of land is uncommon and difficult to understand, and care needs to be taken to ensure that the implications of this are fully understood. It is also important to decide who else should be consulted about the proposed donation; for example, spouses and older children.

There should be a clear agreement as to which party will pay the costs associated with the donated land. This could include measurement costs, documentation and notarial fees, transfer taxes, registration fees. It should also include the costs of re-measuring/re-titling the transferee's remaining land and any new documentation relating to it.

(v) Establishing Informed Consent

It is crucial that the project team is confident that the decision to donate was taken in circumstances of *informed consent or power of choice*. As discussed earlier, this means being confident that the owner(s) or user(s) of the land understand:

- What the land is going to be used for, by whom and for how long;
- That they will be deprived of the ownership or right to use the land, and what this really means;
- That they have a right to refuse to donate the land;
- Whether there are alternatives to using this land;
- What they will need to do to donate the land (e.g., execute documents, get spousal consents, pay taxes);
- The effect of the donation on their family, and what they can do if they (or their family or heirs) want the land back.
- The exact demarcation of land boundary for the project's use;
- Whether there are proposals which would allow other land to be used;
- What they will need to do to donate the land;
- The intergenerational effect of the donation on their family, what they can do if they (or their family or heirs) want the land back.

The terms and conditions of the land donation must be mutually agreed upon and detailing in a written agreement.

(vi) Documentation

It is necessary to distinguish between: (a) the agreement to donate the land; and (b) the document that carries out and evidences the legal transfer of the land. While it is important to have evidence of an intention and agreement to donate the land, it is equally important to ensure, where required and appropriate, that the land is legally transferred. While the process relating to the legal transfer of the land is frequently complicated and time consuming, it must be addressed. [In specific circumstances, for example where the land is being transferred to the community, it may not be necessary to legally transfer the land. However, experience indicates that lack of formal transfer can create significant uncertainty in the future, which impacts on the sustainability of the infrastructure and services, and can have a negative effect on community relations.]

To ensure that any land provided for the siting of subprojects is contributed voluntarily, in accordance with the requirements of the ESMF, two representatives of the landowners (family or clan) are asked to sign a Land Commitment Letter (see below). This certifies that the land is voluntarily donated for the purposes of the subproject and for the benefit of the community. The signature of the Letter is witnessed (as attested by their signature) by a suitable project representative.

The project team should:

- Identify the appropriate documentation, including the agreement to make the transfer and any legal documentation that may be required;

- Ensure that the agreement:
 - Refers to the consultation has taken place;
 - Sets out the terms of the transfer;
 - Confirms that the decision to transfer was freely made, and was not subject to coercion, manipulation, or any form of pressure;
 - Attaches an accurate map of the land being transferred (boundaries, coordinates);
 - Sets out who will bear the costs of the transfer (e.g., notarial fees, taxes, title issues) and documenting the residual land rights.
- Ensure that all necessary parties sign the documents, including obtaining consent from spouses and children over a certain age;
- Ensure that the transfer and title is registered or recorded; and
- Ensure that the land remaining after the donated land is excised is properly titled, registered or recorded.

It is also important to maintain a record of the process that has been followed. Such documents could include the following:

- The notification indicating the location and amount of land that is sought and its intended use for the project, with a record of when and where this was made public;
- Records of the consultations that were held and what was discussed;
- A copy of the due diligence that was conducted;
- Copies of each of the formal statements of donation, establishing informed consent as described above, and signed by each owner or user involved;
- Copies of all documents, registrations or records evidencing the legal transfer of the land; and
- A map, showing each parcel of land.

The Project implementing agency should maintain a record with documentation for each parcel of land donated. Such documentation must be available for World Bank review, and for review in relation to any grievances that may arise.

(vii) Grievance Arrangements

Grievances may be referred to customary conflict mediation arrangements where they are not directly affiliated with traditional leaders who are a party to the donation process.

Annex 3

Chance Finds Procedure

There is a possibility that project activities may result in damage to physical cultural resources (PCR) unless identified early. A Chance Finds Procedure (CFP) will be detailed in EMPs. Activities that may occur in areas with possible PCR will specify procedures for identifying and avoiding impacts on this, including:

- Consultation with the appropriate authorities and local residents and communities to identify known or possible sites during the design of project activities;
- Siting of proposed activities to avoid identified sites (including protected areas and zones);
- The cessation of work until the significance of a 'find' has been determined by authorities or relevant experts; and
- Mitigation and management measures (e.g. buffer zones) for CFP in contracts.

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 list of negative subproject attributes which would make a subproject ineligible for support includes any activity that would adversely impact cultural property. In the event that during reconstruction or construction sites of cultural value are found, the following procedures for identification, protection from theft, and treatment of discovered artifacts should be followed and included in standard bidding documents.

Chance find procedures will be used as follows:

- Stop the construction activities in the area of the chance find;
- Delineate the discovered site or area;
- Secure the site to prevent any damage or loss of removable objects.
- Notify project representative who in turn will notify the responsible local authorities;
- Responsible local authorities and the relevant Ministry would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures.
- Decisions on how to handle the finding shall be taken by the responsible authorities and the relevant Ministry. This could include changes in the layout (such as when finding an irremovable remain of cultural or archeological importance) conservation, preservation, restoration and salvage.
- Implementation for the authority decision concerning the management of the finding shall be communicated in writing by the relevant Ministry.
- Construction work could resume only after permission is given from the responsible local authorities and the relevant Ministry concerning safeguard of the heritage.

These procedures must be referred to as standard provisions in construction contracts.

Relevant findings will be recorded in World Bank Supervision Reports and Implementation Completion Reports will assess the overall effectiveness of the project's cultural property mitigation and management activities.