

E4720

Environmental and Social Management Framework

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FIJI:
Transport Infrastructure Investment Sector Project

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ABBREVIATIONS

ADB	Asian Development Bank
CESMP	Construction Environmental and Social Management Plan
CPP	Consultation and Participation Plan (for the project)
CSS	Country Safeguard System
DOE	Department of Environment (within Ministry of Local Government, Urban Development, Housing and Environment)
DSC	Design and Supervision Consultant
ESMF	Environmental and Social Management Framework
EIA	Environmental Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environment Safeguards Specialist (in DSC team)
FTIIP	Fiji Transport Infrastructure Investment Project
FRA	Fiji Roads Authority
GCDS	Gender and Community Development Specialist
GRM	Grievance Redress Mechanism
IEE	Initial Environmental Examination
HIV/AIDS	Human Immunodeficiency virus Infection / acquired immunodeficiency syndrome
LARF	Land Acquisition and Resettlement Framework
LARP	Land Acquisition and Resettlement Plan
MoF	Ministry of Finance
MLGUDHE	Ministry of Local Government, Urban Development, Housing and Environment
MOU	Memorandum of Understanding
MWTPU	Ministry of Works, Transport and Public Utilities
NSS	National Safeguards Specialist (in DSC team)
PSA	Poverty and Social Assessment
Qoliqoli	Traditional beach, lagoon and reef areas
SPS	Safeguards Policy Statement
SSS	Social Safeguards/Resettlement Specialist (in DSC team)
WB	World Bank

I. INTRODUCTION

The purpose of the environmental and social management framework (ESMF) is to provide a guide for safeguards application during the implementation of the Fiji Transport Infrastructure Investment Sector Project (the project). The ESMF will be applied to the overall project and provide guidance on environmental and social aspects related to the project as well as the screening and assessment of sub-projects that will be identified during the course of the project. The screening and assessment will comply with the environmental and social safeguard policies of Asian Development Bank (ADB) and the World Bank (WB) as well as the country safeguards system (CSS).

The ADB and the WB will jointly provide a loan to the Government of Fiji (GoF) for the project. The project comprises physical works including new infrastructure and/or the upgrading, renewal, rehabilitation, repair of public roads, bridges and/or rural maritime infrastructure in Fiji. The project also includes non-physical works such as institutional strengthening and capacity building within the transport sector. The project will deliver two outputs:

Rehabilitated land and maritime transport infrastructure. The project will finance civil works to repair, rehabilitate or upgrade road and maritime sector assets that are in poor condition. These assets fall into three distinct groups, roads, bridges and rural jetties and wharves. Sub-projects would be selected in accordance with the sub-project prioritization and selection framework, which would be guided by GoF's updated 20-year National Transport Infrastructure Plan (NTIP). It will also finance safety improvements on selected roads and bridges, which may include road safety furniture and streetlights, and gender sensitive designs for improved pedestrian access. Jetty and wharf works will relate primarily to serviceability, including, but not limited to, structural integrity, vulnerability to adverse weather events, and/or user safety issues. Activities may consist of repairing or replacing platforms, pilings, and structural elements, including reinforced concrete, steel or timber sections. Improved facilities such as water and sanitation amenities for those waiting for ships will also be provided. No change in the type or size of the vessels used is expected and as such, potentially high impact activities such as dredging will not be required to fulfill the project development outcome are not anticipated in relation to jetties and wharves.

Sub-projects will be selected in accordance with the approved sub-project selection criteria framework. Where possible, sub-projects will be grouped geographically into suitably sized and cost-effective contract packages that will maximize local impact.

Efficient project management and institutional strengthening. The Ministry of Finance (MoF) will be the executing agency for the project and the Fiji Roads Authority (FRA) is the implementing agency responsible for overall implementation of the project. A project support team will be established consisting of four FRA staff to oversee the overall project implementation, selection of consulting services, procurement of civil works, accounting and financial management activities, safeguards monitoring and evaluation, and project reporting. Design and supervision consultants (DSC) will be engaged to carry out sub-project screening, feasibility studies, detailed design, procurement of civil works packages, construction supervision, and safeguards monitoring. The project will also support FRA update design and construction standards for roads and bridges to bring uniformity to road assets in Fiji, incorporate climate change adaptation considerations for more climate resilient road and maritime transport infrastructure, and reflect current international standards for road geometry, pavements, drainage, and associated structures.

Poor road conditions are a major concern in Fiji. While the government has implemented a policy of gradually upgrading national roads from gravel standard to two-lane sealed highway standard over the past 30 years, there has been insufficient investment in routine and periodic maintenance and rates of deterioration have been faster than otherwise would have been the case. Economic growth can be promoted by improved transport infrastructure, which will improve communities' accessibility to socio-economic opportunities, restore basic social services in rural areas, and build rural economies.

Rural maritime infrastructure such as jetties and wharves are often weather and tide constrained. All coastal routes and the access channels to ports are generally poorly equipped with navigational aids. Safety and infrastructure at most of the smaller ports is rudimentary, ship operators taking their own measures to maintain operational safety. A further complicating factor is the accuracy of maritime charts, with the position of many islands and hazards, in fact the very existence of some, still unclear.

The recently established Maritime Safety Authority of Fiji (MSAF) is taking steps to address these deficiencies. The network of rural maritime infrastructure and beach landing facilities is important in supporting the social fabric of Fiji, particularly in providing freight and passenger linkages to outer islands.

The nature of sector project lending is that the types of activities to be undertaken and types of sub-projects to be implemented are known in general terms but only a small number of sub-projects may be identified at the project approval stage. Sub-projects can be included in the sector project provided they meet the selection criteria to be agreed with government and development partners, including environmental and social criteria. Two sample sub-projects have been selected following the due diligence requirements and an overall environmental assessment prepared to serve as a guideline example. The sub-projects are the repair/rehabilitation or replacement of two existing water crossings, a high level one lane bridge and a low level Irish crossing. From a safeguards perspective the sample sub-projects demonstrate application of the ESMF and the land acquisition and resettlement framework (LARF).

This ESMF will apply to all sub-projects implemented by the project in transport sub-sectors of: (i) rural maritime infrastructure (including wharves and jetties), but excluding the main port infrastructure (which is under Fiji Ports Corporation Ltd) (ii) roads (including national main roads, municipal and rural roads), and (iii) bridges. The objective of the ESMF is to ensure that the project follows the requirements as set out in national law¹ in order that environmental and social impacts within these transport sub-sectors are appropriately identified and mitigated to acceptable levels.

The project will not fund complex sub-projects which have the potential to create significant social or environmental impacts. The rationale for this is that the ADB and WB have not worked substantially with the GoF for an extended period and accordingly the Department of Environment (DoE) and FRA have limited safeguard experience and capacity to work with development partner funded projects. Accordingly, it was considered prudent by all parties (ADB, WB and GoF) that sub projects with potentially significant environmental and social impacts not be funded by the project. Accordingly only Category B and C project will be funded. A particular constraint from a safeguards perspective is considered to be the safeguard capacity within the FRA. For this reason the FRA will be supported by a Design Supervision Consultant responsible for working with FRA to ensure (among other things) that safeguard documents are

¹ The ESMF follows the requirements of Fiji laws (refer to Section II) supplemented as necessary to ensure that the objectives and principles of SPS and OP 4.01 are complied with.

prepared, implemented and monitored in accordance with this ESMF. By ensuring projects are properly screened, risks identified and quality documents are prepared by FRA, the incremental increase in demand on the DoE as result of the project are expected to be able to be effectively managed by DoE. In this regard it is noted that the DoE assesses projects worth over \$170 million per year from the road sector alone (excluding other sectors such as resources, forestry and other infrastructure sectors, etc.). Given the investment of this project will be a maximum of \$30 million per year, that the DSC will ensure quality project identification and preparation, it is considered that the DoE has adequate resources to assess safeguard documentation for Category B sub-projects as proposed.

II. LEGAL FRAMEWORK AND INSTITUTIONAL CAPACITY

Environmental and social assessment and clearance of sub-projects under the project will comply with the *Environment Act 2005*, the ADB Safeguard Policy Statement 2009 (SPS) and the W B Operation Policy 4.01 (OP 4.01).

A. Fiji Safeguard System

Environmental management in Fiji is provided through the *Environment Act, 2005* and the accompanying regulatory instrument the *Environment Regulations, 2007*. Both are administered by the DOE within Ministry of Local Government, Urban Development, Housing and Environment (MLGUDHE).

1. Environment Act 2005

The *Environment Act* (the *Act*) provides for an integrated system of development control, environmental assessment, and pollution control. Section 3 of the Act states the purpose of the Act which is to 1) apply the principles of sustainable use and development of natural resources and 2) identify matters of national importance for the Fiji Islands.

Matters of national importance are identified in Section 3(3) as:

- a. The preservation of the coastal environment, margins of wetlands, lakes and rivers;
- b. The protection of outstanding natural landscapes and natural features;
- c. The protection of areas of significant indigenous vegetation and significant habitat of indigenous fauna;
- d. The relationship of indigenous Fijians with their ancestral lands, waters, sites, sacred areas and other treasures;
- e. The protection of human life and health.

Part 2 of the Act establishes a National Environmental Council and outlines the functions, duties and powers of the Council and the Department.

Section 4 of the Act requires that any proposed development activity that is likely to cause significant impact on the environment must undergo an environmental impact assessment (EIA) process which includes screening, scoping, preparation, reviewing and decision-making. EIA is a formal study used to predict the environmental consequences of the proposed development. In this context, "environment" is taken to include all aspects of the natural and human

environment. Section 32 of the *Act* states that a condition of any approved EIA must be that proponents are required to prepare and implement an environmental management plan (EMP), monitoring program, protection plan or mitigation measure, which may be subject to inspection by the EIA administrator, or an approving authority.

The *Act* (Schedule 2) outlines the types of development proposals that require approval by either the EIA Administrator (Part 1) or approving authority (Part 2) or may not require an EIA process or an EIA report (Part 3). For jetties/wharves and channel developments then Part 1 is likely to be triggered as it includes proposals that may result in erosion of coast, beach or foreshore, alter tidal/wave/currents of the sea or the pollution of marine waters. For bridges then Part 1 may be triggered if gravel extraction or dredging of the river bed is required.

Part 5 of the *Act* establishes a waste and pollution permit system that aims to protect the environment by controlling the release of solid and liquid wastes, the emission of polluting gases, smoke and dust, and the handling, storage and disposal of waste and hazardous substances.

The Environment Management (Waste Disposal and Recycling) Regulations 2007 gives the Waste and Pollution Control Administrator power to issue permits for solid and liquid waste discharge and air discharges.

Section 8 (1) of the regulations states:

- “8. – (1) A solid or liquid waste permit may relate to either construction or operation of a facility or any premises.
 (2) A construction waste permit –
 (a) relates to solid or liquid waste and pollutants generated during construction or demolition of premises of a facility; and
 (b) lapses upon completion of the construction or demolition work”*

Sub-sector projects, for example demolition of old bridges to replace with new bridges, may generate waste, and so a solid waste permit may be required to dispose of any reusable materials.

2. Environment Management (Waste Disposal and Recycling) Regulations

The Environment Management Act 2005 (Part 5) establishes a waste and pollution permit system that aims to protect the environment by controlling the release of solid and liquid wastes, the emission of polluting gases, smoke and dust, and the handling, storage and disposal of waste and hazardous substances.

The Environment Management (Waste Disposal and Recycling) Regulations 2007 gives the Waste and Pollution Control Administrator power to issue permits for solid and liquid waste discharge and air discharges.

The regulations include national air quality standards and criteria for the discharge of liquid and solid waste.

3. Code of Environmental Practice

The Fiji Code of Environmental Practice (COEP) is set out to ensure that minimum environmental standards are met and that appropriate procedures are undertaken to reduce the environmental impact of various activities related to road works and services. Each of the phases of a road project, i.e. planning, design, construction, operation and maintenance are interrelated and have differing potential to effect (either adversely or beneficially) the environment.

The COEP will apply to every sub-project. Below is a brief discussion on some of the aspects of the COEP that are relevant to the sub-projects that involve road works.

Planning, designing and construction. The COEP provides a guideline for all those involved in planning, design, construction and maintenance of roads and crossings. All planners, designers and contractors are to be aware of the need for the COEP including the relevant procedures and to be able to implement systems for the prevention or mitigation of adverse environmental effects of road projects.

Consultation. It is essential that consultation with all stakeholders takes place at all stages of the project. Dialogue and meaningful participation with stakeholders should include a discussion of the potential effects of the project on the communities.

Land acquisition and compensation. The objective is to minimise land acquisition. When unavoidable, land acquisition shall be carried out in such a manner so as to minimise the adverse impacts on the affected people. It is essential that those affected understand the necessary mechanisms and procedures for systematic resolution of land acquisition, compensation or other land related issues. It will be necessary to facilitate better understanding of legal and land acquisition procedures between the various stakeholders involved in planning, design, construction and operation and maintenance of Fiji roads.

Worker health and safety. A number of activities, plant and products can give rise to health and safety impacts for workers during the construction phase. Most of these impacts can be managed and/or mitigated. The potential impacts are (i) contamination of local water supplies by potential contaminants such as sediments, fuel products and lubricants (ii) air pollution from exhaust fumes and dust giving rise to respiratory conditions; (iii) risk of accidents at work sites; and (iv) spread of communicable diseases.

To avoid these impacts contractors will observe general health and safety requirements and as a minimum must be compliant with the Labour Act of 1978 and the Safety at Work Act of 1996. The WB Environmental Health and Safety Guidelines will apply to the project. The contractor will provide personal protective equipment (PPE) to construction workers suitable for civil work such as safety boots, helmets, gloves, high visibility vests, protective clothes, goggles, and ear protection at no cost to the workers and a compliance and monitoring regime will need to be developed. Appropriate first aid facilities (equipment and trained workers) will be available to all workers. The contractor will also prepare a health and safety plan (HSP) instructing workers in health and safety matters. This plan is to be approved in writing by FRA's environment manager/DSC one month prior to starting works. All workers will receive training from the contractor on the HSP as well as general environmental, safety and environmental hygiene.

Erosion control. The objective of this section is to define measures for the prevention of erosion of exposed earth surfaces as a result of road construction. It describes measures that are to be taken to mitigate significant adverse effects of discharge of water containing suspended soil particles into natural water courses or onto land adjacent to road works.

Quarry Development and Operation. This prescribes the safety requirements for the development and operation of quarries as well as to define procedures and works that are to be used to mitigate against environmental effects. It includes considerations such as siting (away from public areas or villages), visual effects, the use of blasting and outlines the contents of a quarry management plan.

River Gravel Extraction. This section provides planning and construction guidelines for extraction of river gravels. It specifies that in each case the proposal to extract river gravel for a

road project must be compared in terms of economic cost and environmental cost with the alternative of obtaining road construction materials from existing or new quarries.

Drainage. Implement and design infrastructure such that drainage systems are able to discharge their design flow without overtopping or surcharging.

Traffic control during construction. The objective of this section is to prescribe methods that are to be used for the safety and control of traffic during the upgrading, reconstruction or maintenance activities on any roads. This includes the following:

- (i) Clothing should be reflectorized coloured jackets.
- (ii) Traffic signs used for warning or direction of traffic at road work sites shall comply with the schedules and signage contained in the Fiji Traffic Regulations. Homemade signs shall not be used.
- (iii) All roads should have at least one lane open for the passage of traffic at all times unless otherwise provided for in the form of temporary deviations.

As part of the project, existing COEPs will be updated with the support of international and national safeguard consultants in the DSC team.

4. Other Legislation and International Conventions

Other environmental and social legislation that could also apply to the project as follows:

The Town Planning Act 1978 establishes the tools and processes for the planning, restriction and approval of development across the Country. The different parts of the Town Planning Act establish the scope and key facets of the planning system. Any development in the coastal zone above the high water mark is subjected to town planning requirements.

Part I - establishes the role of the Director of Town & Country Planning, who is responsible for implementing the Town Planning Act and the Subdivision of Land Act. Part II - Town Planning Schemes, which provide planning tools and regulations for development within local areas. A scheme must include a map of the area and development provisions. Part III of the Town Planning Act states that local councils are responsible for the implementation of Town Planning Schemes, subdivision of land and building development in urban areas, whereas Rural Local Authorities manage subdivision of land and building developments within their districts.

Under the Town Planning Act, each city/town has a Town Planning Scheme that sets out development provisions specific to land within the municipal boundary. For any development, the landowners or the lease holders must apply to their local authority for development permission, and proposals for development must comply (as appropriate) with the requirements of the relevant Scheme, or with the General Provisions. Although Town Planning Schemes are tailored for particular areas, and General Provisions apply to a wide range of circumstances, the aspects of development that they control are similar. Land is designated within a zone and the town planning requirements set out what types of development are appropriate in each zone, and the standards and guidelines that apply. It is likely that sub-project sites will be in rural areas and not subject to any town planning schemes. In areas without an approved Town Planning Scheme, the local authority is the receiving agent for Applications for Development Permission, but does not have the capacity to grant approval. All applications are forwarded to the Department of Town and Country Planning for consideration and a decision.

A Development Application is required where earthworks, building, removing large trees or changing the use of a site or building is proposed. The construction of infrastructure under the

project is likely to involve vegetation clearance and earthworks as well as new structures and therefore a Development Application is likely to be a necessary approval.

Development in the coastal zone² above the high water mark is subject to town planning requirements (Department of Town and Country Planning); development seaward of the high water mark requires a foreshore lease or wet lease subject to regulation by the Department of Lands. This will be relevant for any sub-projects involving new jetties or wharves.

The Rivers and Stream Act 1985 defines public rights in the rivers and streams of Fiji. It includes regulations on pollution and use of water. Where any planned wharf, pier, landing place or building will interfere with the public right to access a river or stream, an application for a licence must be submitted to the director. As structures in sub-projects will already exist it is unlikely a license will be required under the Rivers and Stream Act.

The State (Crown) Lands Act 1978 (Amended 1997) controls the administration and oversight of all development on State Land in Fiji.

Development seaward of the HWM requires a foreshore lease or wet lease subject to regulation by the Department of Lands. The marine infrastructure (access jetty and shipping berth) will be subject to a wet lease and the Department of Lands should be consulted. The aspects considered by the Department of Lands include:

- i) That the lease does not create a substantial infringement of public rights;
- ii) The development of foreshore land for agricultural purposes;
- iii) Development for higher usage such as industrial and tourism development is considered after having considered environmental implications;

International agreements. Fiji is a signatory to a number of international and regional agreements with environmental and conservation implications. These are listed in Annex 1.

B. Safeguard Policies of ADB and World Bank

1. ADB Safeguard Policies

The objectives of ADB's safeguards are to: (i) avoid adverse impacts of projects on the environment and affected people, where possible; (ii) minimize, mitigate, and/or compensate for adverse project impacts on the environment and affected people when avoidance is not possible; and (iii) help borrowers/clients to strengthen their safeguard systems and develop the capacity to manage environmental and social risks. Through its SPS ADB establishes policy objectives, scope and triggers, and principles for three key safeguard areas of environment, involuntary resettlement, and Indigenous People. The SPS sets out the process to be applied from screening, through due diligence and assessment to monitoring and reporting.

Screening and Categorization. SPS requires project screening and categorization at the earliest stage of project preparation. Screening and categorization is undertaken to (i) reflect the significance of potential impacts or risks that a project might present; (ii) identify the level of assessment and institutional resources required for the safeguard measures; and (iii) determine disclosure requirements.

² The coastal zone is defined as the area within 30 metres inland of the mean high water mark and seaward up to the fringing reef.

ADB uses a classification system to reflect the significance of a project's potential environmental impacts. A project's category is determined by the category of its most environmentally sensitive component. Each proposed project is scrutinized as to its type, location, scale, and sensitivity and the magnitude of its potential environmental impacts. Projects are assigned to one of four categories.³ The category determines the level of assessment required.

Due diligence. ADB's safeguard due diligence emphasizes planning, environmental and social impact assessments and safeguard documentation. Through such due diligence and review, ADB will confirm (i) that all key potential social and environmental impacts and risks of a project are identified; (ii) that effective measures to avoid, minimize, mitigate, or compensate for the adverse impacts are incorporated into the safeguard plans and project design; (iii) that the borrower/client understands ADB's safeguard policy principles and requirements and has the necessary commitment and capacity to manage the risks adequately; (iv) that, as required, the role of third parties is appropriately defined in the safeguard plans; and (v) that consultations with affected people are conducted in accordance with ADB's requirements.

Monitoring and Reporting. Both government and ADB have separate monitoring responsibilities. The extent of monitoring activities, including their scope and periodicity, will be commensurate with the project's risks and impacts. Governments, through the implementing agency, are required to implement safeguard measures and relevant safeguard plans, as provided in the legal agreements, and to submit periodic monitoring reports on their implementation performance. Monitoring and supervising of social and environmental safeguards is integrated into the project performance management system. ADB will monitor projects on an ongoing basis until a project completion report is issued.

Safeguard frameworks. Frameworks are required for sector projects, where the types of activities to be undertaken and types of sub-projects to be implemented are known in general terms but only a small number of sub-projects might be identified during project appraisal. The frameworks set out the processes to be followed for the sector project as a whole and for individual sub-projects as and when they are identified. The frameworks will cover the types of sub-projects to be implemented (in terms of identifying generic impacts and mitigations) and clearly identify the process to be followed (from screening through to monitoring) and the implementation arrangements (procedures, roles, responsibilities, and budget).

For this project, this ESMF and land acquisition and resettlement framework (LARF) have been prepared. Sub-project selection, screening and categorization, impact assessments, and safeguard monitoring plans prepared during project implementation will comply with the safeguard frameworks for the project agreed between ADB, WB and the government.

2. World Bank Safeguard Policies

The WB has operational policies relating to environmental and social safeguards. Table 1 summarizes the World Bank's environmental and social safeguards policies that are applicable

³ Category A if it is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented, and impacts may affect an area larger than the sites or facilities subject to physical works. Category B if its potential adverse environmental impacts are less adverse than those of Category A projects, impacts are site-specific, few if any of them are irreversible, and in most cases mitigation measures can be designed readily. A project is Category C if it is likely to have minimal or no adverse environmental impacts. Impacts on the displaced population are minor (where the affected people are not physically displaced and less than 10 percent of their productive assets are lost), or fewer than 200 people are displaced, an abbreviated resettlement plan may be agreed with the borrower

to the project. The third column provides guidance on specific measures and actions required by each party to comply with the policy, and lists the range of safeguard instruments that may be adopted and the manner in which to integrate and verify environmental and social due diligence requirements.

Table 1 - Detailed Description of WB Environmental and Social Safeguards Policies

Policy
<p>WB Environmental Assessment (OP 4.01)</p> <p>Objectives The Bank requires screening of projects proposed for Bank financing to help ensure that they are environmentally sound and sustainable, and thus to improve decision making</p> <p>Procedures Step 1. Screening for environment category of sub-projects.</p> <ul style="list-style-type: none"> Project staff will screen sub-projects early in the identification stage and determine project boundaries and classify projects into appropriate safeguards categories using a checklist. <p>Step 2. Determining safeguards instruments to be used.</p> <ul style="list-style-type: none"> The requirements by the Government of Fiji are then determined. An EIA may be required depending on the scale and nature of the sub-project. An ESMP is included as part of the EIA process. If a sub-project does not require an Environmental Assessment under the Fiji government legislation, but is a Category B, an EIA will be required. An ESMP is included as part of the EIA process. The ESMP will form part of the bidding documents and be included as contractual obligations of the winning contractors that will carry out works. The ESMP may require site specific mitigation and as such, the ESMP will form part of the contractual obligations of the winning bidders. <p>The Bank and ADB will review and clear the safeguards instruments prepared by the FRA for impact identification and appropriateness of proposed mitigation measures.</p>
<p>WB Natural Habitats (OP 4.04)</p> <p>Objectives The Bank supports the protection, maintenance, and rehabilitation of natural habitats and their functions in its economic and sector work, project financing, and policy dialogue.</p> <p>Procedures The ESMF will screen proposed investments for impacts on Natural Habitats. If an Environmental Impact Assessment is required, impacts on Natural Habitats will be assessed in the EIA process. The ESMP will have mitigation measures necessary to protect and conserve Natural Habitats.</p>
<p>WB Physical Cultural Resources (OP 4.11)</p> <p>Objectives The objective of the OP/BP 4.11 on Physical Cultural Resources is to avoid, or mitigate, adverse impacts on cultural resources from development projects that the World Bank finances</p> <p>Procedures If an Environmental Impact Assessment is required, screening for impacts to Physical Cultural Resources will be done. Due to the wide scope of works for road rehabilitation, a Chance Find Procedure will be included in all ESMPs.</p>
<p>WB Involuntary Resettlement (OP 4.12)</p> <p>Objectives</p>

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 the Bank's policy on involuntary resettlement are the following:

- (a) Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs.
- (b) 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.
- (c) 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.

Procedures

To address the impacts of this policy, the borrower prepares a resettlement plan or a resettlement policy framework that covers the following:

- (a) The resettlement plan or resettlement policy framework includes measures to ensure that the displaced persons are
 - (i) informed about their options and rights pertaining to resettlement;
 - (ii) consulted on, offered choices among, and provided with technically and economically feasible resettlement alternatives; and
 - (iii) provided prompt and effective compensation at full replacement cost for losses of assets tributable directly to the project.
- (b) If the impacts include physical relocation, the resettlement plan or resettlement policy framework includes measures to ensure that the displaced persons are
 - (i) provided assistance (such as moving allowances) during relocation; and
 - (ii) provided with residential housing, or housing sites, or, as required, agricultural sites for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the old site.
- (c) Where necessary to achieve the objectives of the policy, the resettlement plan or resettlement policy framework also include measures to ensure that displaced persons are
 - (i) offered support after displacement, for a transition period, based on a reasonable estimate of the time likely to be needed to restore their livelihood and standards of living; and
 - (ii) provided with development assistance in addition to compensation measures;
 - (iii) such as land preparation, credit facilities, training, or job opportunities.

WB Indigenous Peoples (OP 4.10)

Objectives

The 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

This policy contributes to the Bank's mission of poverty reduction and sustainable development by ensuring that the development process fully respects the dignity, human rights, economies, and cultures of Indigenous Peoples. For all projects that are proposed for Bank financing and affect Indigenous Peoples, the Bank requires the borrower to engage in a process of free, prior, and informed consultation. The Bank provides project financing only where free, prior, and informed consultation results in broad community support to the project by the affected Indigenous Peoples.

Such Bank-financed projects include measures to (a) avoid potentially adverse effects on the Indigenous Peoples' communities; or (b) when avoidance is not feasible, minimize, mitigate, or compensate for such effects. Bank-financed projects are also designed to ensure that the Indigenous Peoples receive social and economic benefits that are culturally appropriate and gender and intergenerationally inclusive.

Procedures

A project proposed for Bank financing that affects Indigenous Peoples requires:

(a) screening by the Bank to identify whether Indigenous Peoples are present in, or have collective attachment to, the project area;

(b) a social assessment by the borrower;

(c) a process of free, prior, and informed consultation with the affected Indigenous Peoples' communities at each stage of the project, and particularly during project preparation, to fully identify their views and ascertain their broad community support for the project;

(d) effective consideration of IP issues in an appropriate safeguard instrument

The level of detail necessary is proportional to the complexity of the proposed project and commensurate with the nature and scale of the proposed project's potential effects on the Indigenous Peoples, whether adverse or positive.

OP 4.01 states that the WB requires environmental assessment of projects proposed for WB financing to help ensure that they are environmentally sound and sustainable. Like ADB SPS, OP4.01 sets out the process to be applied and commences with environmental screening.

Screening and categorization is undertaken to determine the appropriate extent and type of environmental assessment. WB uses the same classification system for projects as the ADB with Category A projects having the greatest potential for significant environmental impacts (i.e. that are sensitive, diverse or unprecedented) and an environmental assessment report must be prepared by the borrower. Category B projects having potential impacts that are minor (i.e. site-specific with few, if any, irreversible impacts) and mitigation can be provided readily. The scope of environmental assessment for Category B projects is less than Category A (but the level of detail will vary from project to project based on what is potentially at risk). Category C projects are unlikely to have any adverse environmental impact and no further environmental assessment is required.

For projects where there are sub-projects identified and developed over the course of a project period, the implementing agency carries out appropriate environmental assessment according to country requirements and the requirements of OP 4.01.

Appraisal. WB appraises and, if necessary, includes components to strengthen the capabilities of the implementing agency to a) screen sub-projects, b) obtain the necessary expertise to carry out EIA, c) review all findings and results of EIA for individual sub-projects, d) ensure implementation of mitigation measures and e) monitor environmental conditions during project implementation.

Public consultation. For all projects the borrower consults affected groups and local non-governmental organisations (NGOs) during the EIA process about the project's environmental aspects and takes into account their views. Consultation is initiated as early as possible.

Disclosure. In order to facilitate meaningful consultation, the borrower provides relevant materials in a timely manner and in a form and language that are understandable and accessible to groups being consulted.

Implementation. During project implementation the borrower reports on a) compliance with measures agreed with the Bank on the basis of the findings and results of the EIA, including implementation of any ESMP; b) the status of mitigation measures; and c) the findings of monitoring programs. Sub-project selection, impact assessments, and safeguard monitoring plans prepared during project implementation will conform with the safeguard frameworks agreed to by ADB, WB and the government.

Common safeguards approach. For this project, ADB and WB have developed a common approach to safeguards and social dimensions to be applied. It is based on Fiji's country system supplemented by additional elements, as required, to also comply with SPS and WB's operational policies. The approach provides direction on the preparation of documents, including environmental assessments, poverty and social assessment, land acquisition and resettlement plans.

3. Gap Analysis among Environmental Assessment Requirements.

A detailed gap analysis has been prepared for the land acquisition and resettlement aspects and these are detailed in the LARF. A similar analysis has been completed for the environmental assessment requirements, the outcomes of which are summarized in the following table:

ADB and WB Requirements on Environment	Environment Act, 2005 and COEP	Gap	Gap-Filling Measure
Screening and categorization to determine the extent and type of environmental assessment.	Screening required however process not clear.	Processes vary. More detail needed for ADB/WB funding.	Two-stage screening process established by the ESMF to ensure project categorization and type of assessment document meets ADB/WB requirements.
EMP(s) required to manage potential impacts.	All approved EIAs must include an EMP, monitoring program, protection plan or mitigation measure, which may be subject to inspection by the EIA	No substantive gap.	Minimum EMP requirements of ADB/WB will be satisfied by the project.

ADB and WB Requirements on Environment	Environment Act, 2005 and COEP	Gap	Gap-Filling Measure
	administrator, or an approving authority.		
Identification and consideration of habitat type.	No specific standard or requirements established, especially in screening processes and systems.	More specific requirements and consideration required.	This is not considered a high risk in this project however sub-project preparation requires the assessment of natural habitats and the effective incorporation of mitigation measures into future safeguard documents.
Carry out meaningful consultations with APs, host communities, and concerned NGOs.	The COEP requires consultation with all stakeholders at all stages of the project.	Documentation of consultation and demonstration of how issues have been managed in safeguard instruments.	The ESMF requires the borrower to provide relevant materials in a timely manner and in a form and language that are understandable and accessible to groups being consulted.
Clear institutional/organizational arrangement for implementation and monitoring.	The process required by law appears not to reflect the process applied.	Very clear accountability of each process required. Third party approval (not by FRA) required.	ESMF establishes respective roles at each stage of the sub-project identification, screening, assessment, approval, implementation, monitoring and grievance resolution steps.
Disclose a draft safeguard instrument, including documentation of the consultation process in a timely manner, before project appraisal, in an accessible place and a form and language(s) understandable to affected persons and other stakeholders. Disclose the final safeguard instrument/plan and its updates to affected persons and other stakeholders.	No clear requirements for disclosure of final documents to APs and other stakeholders.	ADB/WB have more specific requirements in terms of type and form of disclosure.	The ESMF includes disclosure measures, including posting of documents on website as well as providing information affected communities.
Establish a grievance	No requirements for a	ADB/WB	The ESMF includes

ADB and WB Requirements on Environment	Environment Act, 2005 and COEP	Gap	Gap-Filling Measure
redress mechanism.	project-specific grievance redress mechanism.	require a clear, transparent and rigorous GRM process.	measures on project-specific grievance redress mechanism as required by ADB and WB.
Monitor and assess to determine whether the objectives of the safeguard instruments have been achieved by taking into account the baseline conditions and the results of monitoring. Disclose monitoring reports.	No equivalent provision.	Gap	The ESMF includes monitoring measures, including requirements of semi-annual safeguard monitoring report. These reports will need to be disclosed.

The key areas where additional policy rigor established by ADB and WB require work to be carried out beyond that which would normally be required under the country systems include:

- identification and consideration of habitat type (though this is not considered a high risk given the general adherence to existing road corridors)
- specifications for information disclosure
- establishment of a grievance redress mechanism, and
- clear identification of institutional/organizational arrangements for EMP implementation and safeguards monitoring.

In response, Annex 2 of this ESMF sets out the process for screening, assessment, clearance and implementation for all sub-projects prepared under the project. This screening process will ensure that both WB and ADB safeguard policy requirements are met. *Parts III and IV of this ESMF* detail how each environmental consideration will be addressed.

All sub-projects under the project will be Category B or C for environment, and will follow the process for screening, assessment, review and implementation as set out in the ESMF prepared for the project. Category A projects are not eligible for financing under the project.

C. Institutional Framework and Capacity

1. Ministry of Local Government, Urban Development, Housing & Environment (MLGUDHE)

The work of the MLGUDHE is focused on legislative reviews, urban planning and managing the impacts of rapid urbanisation, municipal reforms, fire protection and disaster management, and control and regulation of land use. The main focus of the activities is to develop and implement the government's local government and town and country planning and environment legislations, policies and programmes.

The DOE under MLGUDHE derives its legal mandate from the Environment Act 2005 - Part 2 Administration. DOE promotes the sustainable use and development of Fiji's environment and

implements the EIA process. Section 11(1) of the Act outlines the functions of the DOE as follows:

- a) to coordinate the formulation and review of National Report;
- b) to coordinate the formulation, review and implementation of the National Environment Strategy (including national environmental and resource management policies);
- c) to implement and carry out the EIA process;
- d) to design and implement policies and programmes on pollution and waste management, abatement and reduction;
- e) to formulate, monitor and enforce environmental standards;
- f) to coordinate conservation and management of natural resources;
- g) to facilitate the establishment of environmental units in Ministries, departments, statutory authorities, local authorities, or facilities;
- h) to establish and maintain a register of accredited persons;
- i) to provide technical advice on pollution control and abatement measures;
- j) to implement treaties and conventions on environmental and resource management to which Fiji is a party;
- k) to formulate and review a National Resource Management Plan and the Natural Resources Inventory.

The Environment Act requires the establishment of four units: 1) The Environmental impact Assessment Unit; 2) The Resource Management Unit; 3) The Waste Management and Pollution Control Unit; and, 4) Environmental Management Unit.

The role of the EIA unit is to examine and process every development proposal which is referred to it by an approving authority, which may come to the attention of the unit as having a significant environment or resource management impact.

Duties of the EIA Unit:

- Carry out site investigations to assess private and public sector development projects
- Review EIA reports and management plans
- Develop EIA procedures with other government stakeholders
- Advise on environment implications of projects
- Raise awareness on EIA
- Develop and maintain EIA reporting system
- Develop a registration system for EIA consultants to uplift the standard of EIA's in Fiji
- Undertake research and provide secretariat support to committees

The unit is also responsible for the implementation of three International Conventions namely: Convention on Biological Diversity; Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES); and The Ramsar Convention or the Convention on Wetlands. Each Convention has its own committee and working groups to administer the different requirements under the Convention.

DoE has a small staff resource. Only two technical officers and one technical assistant are available in the Suva Head Office for review of EIAs. Divisional offices in Labasa and Lautoka

can provide some additional support (although this is limited as well). Most staff have been with DOE for more than three years, and all DOE staff are graduates with bachelor degrees.

Department of Town and Country Planning (DTCP) control and regulate the appropriate use of land in Fiji through the Town Planning Act 1978 and Subdivision of Land Act 1978. The DTCP is accountable for the planning of municipal land use and development. For developments outside of town and municipal areas the local authority is the Rural Local Authority.

Rural Local Authorities work with the DOE in the implementation of the Environment Act. They are provided copies of EIA studies in their area and asked to review and provide comment on any issues. This may result in the Rural Local Authorities requesting conditions be imposed. Rural Local Authorities also monitor the conditions of EIA in consultation with DOE, such as the implementation of environmental management plans, within their area.

However, Rural Local Authorities are extremely under resourced both in terms of staff numbers and equipment such as vehicles. For example, the Nadroga/Navosa Rural Local Authority only has six full time staff who undertake a variety of roles within their separate geographic areas. The roles include a public health service role, receiving and responding to complaints, review and monitoring of EIAs, etc. The lack of resources and high workload of individual staff is resulting in many EIA conditions not being monitored in rural areas and also is limiting the ability for Rural Local Authorities to be part of an EIA process (i.e. reviewing and suggesting conditions of approval).

Future sub-projects will be properly screened, risks identified and quality documents prepared by FRA with the assistance of the Design Supervision Consultant. Given the small scale of the sub-projects and that only Category B and C sub-projects will be funded under the project, it is not expected that the DoE will be a constraint to effective project delivery, or that the project demands on DoE resources will compromise other DoE activities.

2. Fiji Roads Authority

Until recently the Fiji national road network was managed by the Department of National Roads (DNR), a department of the Ministry of Works, Transport and Public Utilities and the municipal roads by local authorities. In January 2012 the Government passed a decree constituting, the FRA. The FRA is responsible for all of the roads and bridges that were formerly managed by both the former DNR and the municipal councils.

As a statutory corporate entity, legislation provides that FRA be accountable to the responsible minister, currently the Prime Minister, via an appointed Board. As a transitional arrangement FRA is currently governed by a Fiji Roads Advisory Committee and a key activity for 2015 is to complete the process of appointing a Board of Directors to the Authority.

FRA manages the road assets and executes road works under contract to private sector service providers. The exception to this is certain maintenance work carried out by municipal councils and outer island roads which are administered by the Ministry of Rural and Maritime Development under a memorandum of understanding with FRA.

FRA has an organisational structure which has 32 full time staff positions, of which five are currently vacant. FRA's current staffing does not have a dedicated individual for environmental safeguards implementation and monitoring but does have provision in its staffing structure for an environmental officer. To support the project, FRA will establish a project support team consisting of a project manager/engineer, accountant, environment manager, and social impact manager.

FRA will be responsible for overseeing and managing Project execution including compliance with project requirements (financial management, procurement, safeguards, and monitoring and evaluation).

FRA's environment manager will be responsible for implementing environmental and social safeguards at a sub-project level. This will include capacity building as well as working with the DSC in monitoring in accordance with ESMP and resettlement. Further environmental and social safeguards specialists both at an international and national level will be part of the DSC to provide the capacity for screening, environmental assessment and monitoring of each sub-project in accordance with this ESMF.

3. Ministry of Works, Transport and Public Utilities

The Ministry of Works, Transport and Public Utilities (MWTPU) oversees policy, administration and regulation of land and maritime transport. The goal of the Ministry is to “provide an integrated transport system that is safe, efficient, affordable, accessible to all and environmentally sustainable”. The Ministry of Transport amalgamates the portfolios as described below.

Transport Planning Unit (TPU). This unit was established as a means of strengthening the capability of Government to better co-ordinate transport planning, develop policy and provide ministerial advice on transport matters. TPU interfaces with key stakeholders in the transport sector through the National Transport Coordinating Committee and National Transport Consultative Forum).

Maritime Safety Authority of Fiji. The MSAF was previously a department of the MWTPU. MSAF administers the regulation of maritime safety, marine environment protection, port security, search and rescue and hydrographical services. Responsibilities include: (i) maritime safety, which covers flag state control functions - registration of ships, ship survey and certification of seafarers, and port state control functions - port and ship security; marine environment protection; (ii) provision of aids to navigation; (iii) coordination of search and rescue; (iv) hydrographic services regulation; and (v) discharge of Fiji's international maritime obligations – accession to and compliance with international maritime conventions (mainly International Maritime Organization) and representation on regional and international maritime bodies

Government Shipping Services. The Department's overall function is to promote and facilitate, in accordance with government policies and priorities, the national need of sea transportation. This is through the provision of shipping and marine navigational aids services, meeting Fiji's obligation to international maritime conventions and the maritime community. In recognition of the inter-relationships between sea transportation and the wider economy, these services play an important role in the development of the urban, islands and coastal economies on a sustainable basis aimed at maximizing the contribution of the respective sectors to the national economy, thereby improving the standards of living of all people throughout Fiji.

Fiji Meteorological Services. The Department of Meteorological Services is responsible for providing weather forecasting service for Fiji and most other Pacific Island States, marine and cyclone warning services on a wider regional scale, and aviation forecasting for the Nadi Flight Information Region. It also monitors Fiji's climate, and provides information and advice on weather and climate of the nation, being a leading Meteorological Services among the Pacific Islands States, it has an increasing role to play in regional weather and climate matters, It hosts the Regional Specialised Meteorological Centre for Tropic Cyclones under the World Weather Watch programmes of the World Meteorological organisation.

4. Ministry of Lands and Mineral Resources

The Ministry of Lands and Mineral Resources is responsible for policy formulation, monitoring and implementation of programs in the areas governing state land administration, mineral sector and Fiji's groundwater resource. As the principal survey authority in Fiji, it is responsible for the regulation of all land surveys undertaken in Fiji by registered surveyors. It also develops, provides and maintains the network of survey controls nationwide. A major and growing role is that of land information, and the Department of Lands (DOL) produces and updates all national maps of Fiji. The Valuation Division of the DOL undertakes all negotiations and acquisitions of land for public purposes including assessments of rentals.

The Ministry's activities are directly aligned to the People's Charter for Change, Peace and Progress; the Strategic Framework for and the Roadmap for Democracy and Sustainable Socio-Economic Development 2009-2014.

The DOL has five divisions including the State Land Administration Division, Corporate Services Division, Survey Division, Valuation Division and Geospatial Division. The DOL has offices based in Suva, Lautoka and Labasa.

Sub-projects involving development and use of State Land, such as the construction of bridges over rivers or jetties in the foreshore area, will be subject to a lease, approved by the DOL under the State Lands Act 1978.

III. ANTICIPATED ENVIRONMENTAL AND SOCIAL IMPACTS

The project will finance civil works to repair, rehabilitate, reconstruct, or upgrade existing roads, bridges, and rural jetties. Sub-projects will be selected from the 20 year Fiji Transport Infrastructure Investment Plan (due for completion in late 2014), which will take into account the Fiji Roads Authority's draft 10 year Asset Management Plan.

Based on experience with other similar projects, it can be anticipated that most of the impacts will be site-specific and can be readily mitigated, as the roads, bridges and jetties are already present and most works will be repair and/or reconstruction at their existing location, i.e., within existing transport corridors and structural footprints. Where replacement will provide a better, or is the only feasible, option, the new infrastructure may be sited alongside or at a nearby location better suited to its design and function and will be screened and assessed using this process set out in this ESMF.

Land acquisition and associated issues, disturbance of cultural sites, and destruction of significant vegetation and habitats will not be significant issues in the majority of the sub-projects due to the rehabilitation type activities and of minor significance in the remainder, particularly as no environmental Category A sub-project will be eligible for financing under the project.

A. Roads/Bridges

1. Design and Location Impacts

This component would fund routine or periodic maintenance, and works to repair, rehabilitate, reconstruct (including possible minor realignment) or upgrade, as appropriate, existing roads, bridges and rural jetties and wharves. It may also include safety improvements on selected roads, bridges and rural jetties and wharves, such as safety furniture and signage, and repairing or replacing existing and/or installing new streetlights. Sections of existing main, municipal, rural and maritime roads would be rehabilitated through repairs and resealing of sealed roads, and regravelling or upgrading of existing gravel roads to sealed standards.

With more than 900 bridges and large culverts/crossings, the project will improve the condition of these structures on selected roads. For some single-lane bridges, it is possible that their decks could be widened to accommodate two-lane traffic and sidewalks. Also, the hydraulic capacity could be increased by, for example, raising deck heights to exceed the flow and level of appropriate designs for flooding. Where necessary and possible, structural elements involving steel, reinforced concrete or timber, may be replaced or repaired. Scour protection and soil reinforcement may also be installed around piers and abutments to ensure resilience of underlying structures to flood events. Where existing structures cannot be economically repaired, a number of replacement options will be considered and the most appropriate option adopted.

Climate change. The design of roads at either inland or coastal locations will consider potential impacts of climate change including: sea level rise, extreme high tides, storm surges, coastal flooding, cyclones, heavy rainfall events and more temperature extremes. Much of the damage that has occurred to structures within Fiji is due to prolonged and/or intense heavy rainfall and subsequent river flooding and debris loads, sometimes coupled with deforestation in river catchments.

ADB has developed guidelines for climate proofing investment in the transport sector specific for road infrastructure projects. The process for integrating suitable measures in the designs will be

a requirement of the project. Measures may be engineering or non-engineering options. For example engineering options for climate proofing roads includes a consideration of the subsurface conditions, material specifications and drainage and erosion. Non-engineered options may include the use of environmental buffers such as mangroves or increased vegetative land cover to minimize the impact of floods and assist with drainage. The project includes input by a climate change adaptation specialist (as part of the DSC) who will guide this process.

Runoff management design. Based on mitigations identified in environmental assessments and integrated into ESMPs and successfully implemented in previous projects, roadside storm water drainage will include specific recommendations that may include but are not limited to the following mitigation measures:

- Cross drainage using culverts will be carefully evaluated to ensure that systems do not fail from excessive discharge.
- Where the road traverses ridges, side drains (off-takes) are required to direct storm water flows away from the road. These are to be established at 2 m vertical intervals (VI) where bare earth channels will be maintained. If a 2 m VI cannot be achieved then consideration will need to be given to vegetated channels with a VI of 4 m or otherwise armored with concrete or half round steel pipes.
- Where cross drains are required stable outlets will be provided that can carry the runoff safely to the disposal area. Culverts and drains must not be allowed to terminate above a disposal area without considering the possible effects on the stability of the discharge area.
- All pipe and box culverts must have flared level outlets and be provided with a vertical cut-off wall at the end of the apron that extends at least 0.35m below the apron to avoid the apron being undercut.
- All culverts are to discharge to safe (non-eroding) areas.
- Regular maintenance of roadside drainage systems is required.

Flora, fauna and protected areas. Flora and fauna will be identified in the environmental assessments. Measures to mitigate any impacts on flora and fauna will be integrated into the ESMP. As noted previously, the roads will be rehabilitated within existing corridors and bridges will be replaced either in the existing footprint or adjacent to the existing structure to minimise vegetation clearance and fauna and flora impacts. Water crossings will be designed to allow fish passage through the structure. As the environments will already be modified, no critical or natural habitats are likely to be disturbed and works will not be in, or adjacent to, protected areas or conservation areas.

Land acquisition. A LARF has been prepared for the project and will serve as the umbrella safeguard document for mitigating any potential impact linked to land acquisition and resettlement required for any work that necessitates access to land beyond the existing road corridor, including temporary access arrangements required while new bridges are being constructed. The procedures set out in the resettlement framework will be followed by FRA. Any resettlement plans or due diligence reports, as required, will be submitted to ADB and WB for review and clearance. A Land and Acquisition Resettlement Plan (LARP) will also be prepared for each sub-project when land acquisition and resettlement impacts are identified. Fiji's Government is responsible for preparing the required document and ensuring proper consultation while ADB and WB will help guide the implementation process. The FRA, the

Provincial Council and the Taukei Land Trust Board (TLTB) will consult and engage with landowners and tenants prior to and throughout project implementation.

A LARP has also been prepared for WB Year 1 project/ADB's sample sector project. The LARF will guide the preparation of LARPs for sub-project preparation when land acquisition or resettlement impacts are identified. The frameworks prepared for the project and the ESMP and LARP prepared for the for WB Year 1 project/ADB's sample sector project have been prepared in consultation with key stakeholders and potentially affected people.

Eligibility criteria for compensation of lost assets. Project beneficiaries may be eligible for compensation as a result of impacts from the project under the following criteria: (a) those who have formal legal rights to land (including customary and traditional rights recognized under Fijian Law); (b) those who do not have formal legal rights to land at the time the sub-project is identified but have a claim to such land or assets -- provided that such claims are recognized under Fijian or become recognized through a process identified in the resettlement plan; and (c) those who have no recognizable legal right or claim to the land they are occupying. These persons are provided resettlement assistance in lieu of compensation for the land they occupy, and other assistance, as necessary, to achieve the objectives of the ESMF and LARF, if they occupy the project area prior to a cutoff date established by FRA and acceptable to the WB/ADB. Persons who encroach on the area after the cutoff date are not entitled to compensation or any other form of resettlement assistance. All persons included in (a), (b), or (c) are provided compensation for loss of assets other than land

For all sub-projects that may involve resettlement, a socioeconomic survey or census in the sub-project areas to determine the location of assets and to identify the persons who will be eligible for assistance will determine the cut-off date for eligibility.

Indigenous Peoples. The proposed project will trigger the WB's OP 4.10 on Indigenous Peoples (IP). Except for Year 1 sub-projects, where activities will take place in the upper Sigatoka Valley, the location of all sub-project areas is unknown. However, the social assessment carried out during project preparation identified that project beneficiaries are expected to be indigenous iTaukei, who own nearly 90 percent of all the land in Fiji.

A stand-alone Indigenous Peoples Plan (IPP) will not be prepared for the project as the majority of communities that will benefit by from the sub-projects are expected to be communities of iTaukei living on traditionally tenured land. Instead, issues relevant for preserving the interests and livelihoods of the indigenous population, as well as for maintaining its cultural and socioeconomic traditions, will be integrated within the project design and implementation phases.

To ensure compliance with OP 4.10, guidance provided in the *Environmental and Social Safeguard Instruments for the Pacific* including elements of an IPP will be incorporated into overall project design and incorporated into the safeguard documents (LARP if resettlement impacts, EIA and/or ESMP if no resettlement impact).. This guidance is included in Annex 4 of this ESMF.

The Government will organize free, prior and informed consultations with the affected communities for each sub-project and ensure that there is broad community support for the proposed sub-project(s). WB requirements for the social assessment have been met in parallel with ADB's requirement for the PSA.

2. Construction Impacts

Air quality. During the construction phase, the activities that could produce impacts on air quality are emissions from vehicles or machines and dust raised from the construction activities. Fiji has emission and air quality standards (Annex 5). Air quality standards from emissions are provided in Schedule 5 (Part B), Part 4 of the Environmental Management Regulations 2007, summarized for solids and gases in Table 14.1-6 and Table 14.1-7, respectively. This regulation indicates that “a point source of an air polluting substance should not, in isolation or combination with any other source of that substance, cause a concentration of that substance in the ambient air to exceed the emission standards set out.” Since the impact on air quality is likely to be minimal and the standards not exceeded, no rigorous air quality monitoring is expected to be required for sub-projects.

Dust may become a nuisance to surrounding communities from construction activities. Where dust will be an issue, the contractor will limit the area opened and reduce vehicle movements. Water will be sprayed on affected areas as required to keep dust down both at the worksite and on haul routes that pass through village areas or cropping susceptible to dust. Stockpiles may also release dust into the surrounding area and should be sited away from residences.

Noise. There are villages and noise sensitive receptors (school, health center, church) within the road corridors. In such locations noise will be controlled, with no construction activities taking place between 1900 hrs and 0700 hrs. Ideally, noise should not exceed 45 dBA measured at the outside of any house or noise sensitive receptor.

Vibration. For compaction of the road base and materials/aggregate or other activities such as pile driving for bridges, the contractor will establish the following:

- Type and size of vibration impact of equipment
- Zone of influence for the equipment
- The contractor will be the responsible for assessing the condition of buildings that may be susceptible to vibration within the zone of influence before commencing any work.
- The contractor will be responsible for any damage caused to buildings as a result of operating this equipment.
- Prior to commencing work with any vibrating machine, the contractor will arrange to advise people in nearby houses that this work is due to commence.

Sources of materials. Materials such as aggregates or river gravels should ideally be sourced from existing quarries/gravel pits on land. However, it is likely that given the remote location of many of the sub-projects that materials may need to be sourced locally. Should materials for the sub-project be sourced from a river or stream, the contractor will be required to prepare an aggregate extraction plan and ensure that a gravel extraction permit is obtained, issued by the Ministry of Lands and Mineral Resources either to a supplier or directly to the contractor for the extraction of materials. Any such gravel extraction site that is opened by the contractor will comply with relevant laws and requirements including a plan for access to the river gravel site and re-instatement after completion of work.

One of the existing COEPs covers the operation of quarries and this, and other COEPs will be updated as part of the project. The gravel extraction plan should include measures outlined in the COEP and be included as part of the ESMP.

Solid Waste. During replacement of bridges, old bridges may require demolition (if they cannot be used as foot bridges). Material from existing bridges to be demolished will be recycled or reused in new construction where possible. Where materials cannot be recycled or reused they will be offered to the community (if they have a useful purpose and are non-toxic) or appropriately disposed of to an approved facility. A solid waste permit may be required and this requirement should be discussed with the DOE at the assessment stage of sub-projects.

Soils and erosion. During construction, excavated areas will need to be assessed for potential soil erosion damage and protection arranged as necessary to avoid the movement of eroded soil from the site into watercourses and onto adjoining areas including the worksite. Arrange to limit the area that is being excavated and use temporary stormwater control devices and associated cut off drains/bunds to minimize sediment transport into watercourses. If sediment transport into watercourses may be a significant issue and it is impracticable to pass discharge over a grassed area prior to discharge to a watercourse then silt ponds/traps should be used. Stockpiles are to be located away from watercourses where possible and where toe drains can be constructed around the stockpile to minimise runoff of sediment to watercourses or surrounding land. At the completion of work, all disturbed areas will be stabilized by re-vegetation techniques as soon as practicable.

Water quality and resources. Road development activities can also modify the hydrology of an area, affecting aquifer re-charge, groundwater discharge, and the water table and flow characteristics. There can also be deterioration in water quality of both surface and groundwater. Potential sources of impacts are site preparation and clearing activities, heaping of materials, blocking and narrowing water channels and flows at certain points. In some cases the speed of flow may be increased resulting in flooding, ponding, soil erosion, channel modification and siltation of streams. Earthworks, road drainage and excavation, erection of embankments and structures can reduce or raise the water table (through restricting flow). Water quality can also be affected during construction activities when sediment, wastewater, oils and lubricants, sewage and other materials can move into the environment. Construction activities that may exacerbate the movement of these materials into the fresh or marine water environments will be examined and mitigation measures developed. No refuelling of construction machinery will occur within 20 m of a watercourse.

Flora, fauna and protected areas. During the construction phase, flora and fauna can be affected, but any potential impacts are considered to be minimal as the construction work will be performed at previously developed/modified sites and the previous operation of the road or presence of the bridge will have already disturbed fauna in these areas. The works will focus on reconstruction within existing corridors and within or adjacent to the existing footprint of structures. In addition, construction works will be temporary and fauna and flora will re-establish. Sub-projects will not be selected in road corridors that traverse critical or natural habitats or are in, or adjacent to, protected or conservation areas, as these would be classified as Category A sub-projects and therefore not eligible for financing under the project. If significant vegetation such as large trees require removal then replanting in nearby locations with suitable species will be considered in the ESMP.

Physical cultural resources. Existing roads and bridges are unlikely to be located in areas where there are any known physical cultural resources (sites, areas) that could be damaged during excavation or other construction activities. The national museum shall be consulted during the screening of sub-projects to identify any known areas of cultural or historic significance. Any significant vegetation removal or road realignment may result in sites being uncovered. The ESMP contained in the environmental assessment will include chance find procedures, in the event of any accidental discovery during construction activities. The contractor will consult with local leaders and authorities if new sites for sourcing materials are

identified to allow for areas of cultural importance to be avoided. "Chance Find" provisions are included in Annex 7 of this ESMF.

Potential material or quarry sites are anticipated to be existing sites, but where new sites are brought into operation for the project, the contractor will be required to seek a permit from Ministry of Lands and Mineral Resources.

Community health and safety. The ESMP will include measures to protect the health and safety of communities including; (i) work sites and camp being properly fenced and guarded; (ii) unauthorized people will not be permitted into the work sites or camp; implementation of the project's consultation and participation plan which will set out the protocols to be implemented by the contractor and which will guide interaction between community and construction workers; and (iv) contractor will engage an approved service provider to deliver communicable disease awareness and prevention training and presentations with local communities and the workforce.

Depending on the different infrastructure needing repair or reinstatement there will be a mix of international and national workers. For example, high level bridge construction will require a larger proportion of skilled labor, culvert and scour protection works can utilize a greater proportion of unskilled and local labor. Local people can also be hired as security guards, cooks, cleaners and providers of local produce at works sites and camps. This will reduce possible conflicts between outside labor and local communities. The location of the site and any campsite will be carefully assessed by the contractor, DSC, and local community leaders to avoid the development of concerns, grievances, or conflicts.

Although not a specific impact of this project, human trafficking has been a problem in Fiji in the past. The project is not expected to increase the potential for human trafficking but it is a risk that needs to be considered.

The main potential for trafficking issues would arise out of a large out of town workforce being required for construction or if new major roads were created to previously inaccessible rural areas, making transport easier to the areas where trafficking is more prevalent (i.e. city centres). As the sub-projects will be existing roads and most sub-projects will utilise local labour resources then it is not expected to be a significant impact of the project. The Fijian government enacted a comprehensive anti-trafficking law, the Crimes Decree, which defines trafficking as a crime of compelled service which does not necessarily involve crossing a border or otherwise moving a victim, and includes several innovative provisions to protect both adult and child trafficking victims. Ongoing training and awareness programmes are in place to address the problem.

Worker health and safety: A number of activities, plant and products can give rise to health and safety impacts during the construction phase. Most of these impacts can be managed and/or mitigated. The potential impacts are (i) contamination of local water supplies by potential contaminants such as sediments, fuel products and lubricants (ii) air pollution from exhaust fumes and dust giving rise to respiratory conditions; (iii) risk of accidents at work sites; and (iv) spread of communicable diseases such as HIV/AIDS. Contractors will observe general health and safety requirements and as a minimum must be compliant with the Labour Act of 1978 and the Safety at Work Act of 1996. The WB's Environmental Health and Safety Guidelines will apply to the project. In particular, the contractor will be required to provide personal protective equipment to workers. Specific HIV/AIDS prevention and awareness clauses will be included in works contracts, that are consistent with standard bidding documents and specific clauses/covenants in the loan agreements.

3. Operation Impacts

Soils and erosion. Any excavation sites will be either filled in or stabilized during construction. Soil erosion from the road itself is not expected. Roadside drainage systems and waterway crossings will need to be maintained and this will require the removal of accumulated sediments and vegetation (particularly after flood events).

Flora and fauna. Impacts on flora and fauna are generally expected to be the same as previously as roads, bridges and jetties existed in these locations and indirect impacts from traffic and vessels (noise, vibration, dust, water quality) is already occurring. There may be a slight increase in traffic volumes (include marine vessels in the case of jetties) once infrastructure is improved but generally impacts on fauna and flora are all expected to be minor. As the reconstruction works will take place in existing road corridors there will be no potential for adverse impacts that could arise from access to previously inaccessible forests or sensitive habitat areas. However, improved roads may lead to remote areas being more accessible.

Health and safety. The operation of road works machinery often endangers both operators and laborers during construction and road maintenance. Poorly planned borrow pits and quarries for road works can also pose threats, ranging from falls from quarry faces to drowning in quarry pits that have become standing water reservoirs. Mitigation occupation and health safety measures will be put in place by contractors as per the contracting.

The project will also be designed to minimize road safety risks by rehabilitating existing roads, bridges and jetties within existing rights-of-way and within the formation width, with adequate provisions for traffic safety measures, such as signs and traffic calming devices. This will be confirmed during public consultations that will take place during project preparation.

Socio-economic impacts. The rehabilitation works are expected to have positive impacts on the social and economic prosperity of adjacent communities as transport will be more reliable and accessibility improved as a result of the project. Local populations will still be able to continue to use the area as they did prior to the works but with greater safety.

Risk of spread of communicable diseases and trafficking. Following the improvement of infrastructure such as road corridors and water crossings, there is a potential risk of spread of communicable diseases such as HIV/AIDS resulting from the enhanced accessibility of areas and of cases of human trafficking. Awareness and prevention training on risk of HIV/AIDS will be required and coordinated by contractors, as per contract documentation clauses on construction works.

B. Jetties and Wharves

Activities may consist of repairing or replacing platforms, pilings, and structural elements, including reinforced concrete, steel or timber sections. Repair of storm damage and reconfiguration to better suit current and/or planned operations to improve land and marine access, and to provide more resilient and safe use of maritime transportation, is also expected. Depending on conditions, some jetties and wharves may be replaced with new structures.

Thus, land acquisition and associated issues, disturbance of cultural sites, and destruction of significant coastal vegetation and significant habitats is unlikely to appear as an issue in the majority of these sub-projects. The sensitivity of the coastal/foreshore sites will be assessed during the screening to ensure that Category A sub-projects are not included in the project.

1. Design and Location Impacts

Climate change. The design of maritime infrastructure will consider potential impacts of climate change including: sea level rise, extreme high tides, storm surges, coastal flooding, cyclones, and increased wave attack/scouring. Much of the damage that has occurred to rural maritime infrastructure within Fiji is due to a combination of inadequate original design, lack of maintenance, vessel impact and damage from wave attack, particularly in major cyclone events.

Integration of an appropriate level of climate resilience into the structural design will be a requirement of the Project. Measures may include engineering or non-engineering options. For example engineering options for climate resilience of marine infrastructure includes raising the deck height of structures, additional reinforcing and scour protection and the ability for structures to be overtopped. Non-engineered options may include the use of environmental buffers such as mangroves or increased vegetative land cover to minimize the impact of coastal flooding and assist with drainage. The project administration manual includes input by a climate change adaptation specialist who will guide this process.

Coastal processes. Solid structures have the potential to interrupt sediment movement along the coast (longshore sediment movement) or create accretion. In addition, structures with vertical walls located within the wave zone can cause wave reflection and scouring of the sediments in front of the structure. To avoid interruption to coastal processes solid structures are not to be designed and constructed. Where possible, structures are to be designed to mitigate wave impacts on the structure and reinforcing should be provided to mitigate against scouring.

Flora, fauna and protected areas. Foreshore and coastal flora and fauna will be identified in the environmental assessments. Measure to mitigate any impacts on flora and fauna will be integrated into the ESMP. As noted previously, the structures will be rehabilitated within their existing footprint or directly adjacent to the existing structure. As the environments will already be modified, no critical or natural habitats are likely to be disturbed and works will not be in, or adjacent to, marine protected areas or conservation areas.

Land acquisition. A LARF has been prepared for the project. This will guide the process for any work that necessitates access to land beyond the existing road corridor, including temporary access arrangements required while new jetties are being constructed. The procedures set out in the resettlement framework will be followed by the FRA and DSC. A LARP will also be prepared for each sub-project when land acquisition and resettlement impacts are identified. Any resettlement plans or due diligence reports, as required, will be submitted to ADB and World Bank for review and clearance.

Indigenous Peoples: Same as for roads and bridges.

Physical Cultural Resources: Same as for roads and bridges.

2. Construction Impacts

Water quality and resources. Potential sources of impacts for jetties and wharves include site preparation and clearing activities, heaping of materials. Water quality can also be affected during construction activities when sediment, wastewater, oils and lubricants, sewage and other materials can move into the environment. Construction activities that may exacerbate the movement of these materials into the marine water environments will be examined and mitigation measures developed. No refueling of construction machinery will occur within 20 m of the coast. Machinery should work at low tide to minimize water quality impacts during construction.

Flora, fauna and protected areas. During the construction phase, flora and fauna can be affected, but any potential impacts are considered to be minimal as the construction work will be performed at previously developed sites. The main potential construction impact on fauna and flora will be the driving of any piles on the benthic ecology or any removal of existing sensitive marine habitats such as corals or sea grass that may be required by construction machinery accessing the site. Construction machinery will take existing tracks to the coastal area where they exist to minimize damage to coastal habitat.

Vibration from pile driving will impact fauna and flora in the vicinity. Most species that are sensitive to vibration such as turtles and fish can move away from the source. However, pile driving will not occur during the turtle nesting season.

Marine ecosystems such as corals are particularly sensitive to sediments (sedimentation) and turbidity (which can block the light necessary for growth). Construction works will occur at low tide to minimize potential sedimentation and where works within water cannot be avoided, turbidity curtains will be used to minimize impacts.

Lights can cause glare and disorient fauna, particularly turtles, making it difficult for them to move away from the construction area. Care will be taken to use suitable lighting that does not cause excessive glare and works at night will be minimized to avoid the use of lighting.

If significant vegetation such as mangroves require removal then replanting in nearby locations should be considered in the ESMP.

Physical cultural resources. Sacred places and places of cultural importance such as burial sites can often be located at the coastal edge. As works will mainly involve the repair or reconstruction of structures it is not considered likely that any sites of cultural significance will be directly impacted by the construction works. However, care will be taken to utilize existing access route to structures by construction machinery to avoid disturbing unmarked sites.

Any significant vegetation removal for access to the site may result in sites being uncovered. The ESMP contained in the environmental assessment will include chance find procedures, in the event of any accidental discovery during construction activities. The contractor will consult with local leaders and authorities if new sites for sourcing materials are identified to allow for areas of cultural importance to be avoided.

Protected Areas and Sensitive Ecosystems: The presence of any marine protected area is to be determined and measures taken to minimize disturbance of any of these areas. Should any construction be required within a protected area, a rigorous environmental categorization will be undertaken to ensure proper environmental classification and the level of environmental assessment needed according to ADB and WB guidelines. Aside from that, any construction activities adjacent to or alongside a marine protected area will be carefully examined. Impacts on natural habitat will be covered in the environmental assessment. No solid or liquid wastes are to be disposed of in the marine environment and all waste will be collected and removed from these sites.

Community. The siting of any work area with regard to its location relevant to local communities will need to be carefully appraised by the contractor, the developer and local community leaders to avoid the development of possible conflict situations.

The ESMP will include measures to protect the health and safety of communities including; (i) work sites and camp being properly fenced and guarded; (ii) unauthorized people will not be permitted into the work sites or camp; implementation of the project's consultation and participation plan which will set out the protocols to be implemented by the contractor and which

will guide interaction between community and construction workers; and (iv) contractor will engage an approved service provider to deliver communicable disease/HIV and trafficking awareness and prevention training and presentations with local communities and the workforce.

Worker Health and Safety: A number of activities and products can give rise to health and safety impacts during the construction phase. Most of these impacts are, however, considered minimal. The potential impacts are (i) contamination of local water supplies by potential contaminants such as sediments, fuel products and lubricants, and sewage giving rise to gastro-intestinal problems; (ii) air pollution from exhaust fumes and dust giving rise to respiratory conditions; (iii) risk of accidents at work sites; and (iv) spread of communicable diseases such as HIV/AIDS. Contractors will observe general health and safety requirements and as a minimum must be compliant with the Fiji health and safety and labour legislation.

Construction work areas are potential sources of contaminants and there will be a need to ensure that any work areas are sited away from water sources used by the local communities. Contract documents will take into account the proper siting of the work areas and contractors will observe general health and safety requirements, including provision of safety and protective gear and equipment for workers to avoid risks of accidents at the work site. The contractor will ensure that workers have good access to a health facility and shall ensure that first-aid and medical supplies are well stocked at the construction site. Access to work areas by members of the local community will be prohibited to reduce safety and social risks. A suitable boat will be made available in case of need for emergency or medical evacuation.

Noise and Vibration: Pile driving has the greatest potential to develop noise and vibration from the impact of the driving action. Both noise and vibration is expected to be temporary and may last up to one month. This is not expected to cause adverse impacts to residents or the workers themselves. Pile driving will not occur between the hours of 1900 and 0700 and the contractor will be required to alert communities when noise and vibration activities will occur. The contractor will be required to monitor community reaction to these activities and manage work to minimize disruptions to communities.

3. Operation Impacts

Water Quality. Water quality may be impacted through the spillage of oil or other wastes from vehicles or berthed vessels. This includes sewage from vessels or any shore-based facilities. Although the discharge of waste from vessels using the structures is possible, it will be no different to the risk presented prior to the works as the structures already exist. However, to avoid impacts on water quality the facility should be provided with a suitable waste receptor and signage installed advising people not to discharge wastes to water and the law regarding disposal of wastes.

Risk of Spread of Communicable Disease: There is an increased risk of spreading communicable diseases resulting from greater mobility of people, particularly when ships stay overnight alongside the wharf/jetty, where both from the crew and the passengers may sleep ashore often inadequate and unhealthy surroundings.

This can be assisted by the provision of basic water and sanitation facilities at the wharves/jetties to avoid unsanitary conditions developing. The overall risk is considered to be insignificant and will be addressed by implementing a communicable disease awareness and prevention program within the surrounding communities during the construction phase.

IV. SAFEGUARDS PROCEDURES FOR SUB-PROJECTS AND/OR COMPONENTS

The following provides the steps in the assessment of sub-projects. The process complies with Fiji legislation and has additional requirements to meet the common safeguards approach developed by ADB and WB.

A. Screening and Categorization

Step 1. Screening for environment category of sub-projects.

The **first stage** in the assessment is screening of project impacts to determine the potential risks and required level of assessment as well as the type of safeguards documents/instruments required (e.g. ESMP/LARP). The significance of the project's environmental impacts determines the environmental categorization of the project. As most sub-projects relate to existing structures, it is likely that each sub-project will be Category B or C.

Category A projects are not eligible for financing under the project. The rationale for this is that the ADB and World Bank have not worked substantially with the Government of Fiji for an extended period and accordingly the DoE and FRA have limited safeguard experience and capacity to work with MDB funded projects. Accordingly, it was considered prudent by all parties (ADB, WB and GoF) that sub projects with potentially significant environmental and social impacts not be funded by the project. Accordingly only Category B and C project will be funded.

The final objective of the categorization is to ensure that all social and environmental impacts are avoided, minimized or properly mitigated. The screening forms in Annex 2 are provided for this purpose.

The screening process is summarized in Box 1.

Step 1. Screening for environment category of sub-projects.

- Project staff will screen sub-projects early in the identification stage and determine project boundaries and classify projects into appropriate safeguards categories using a checklist (see categorization definitions below)
- Category A projects are not eligible for financing under the project.

Step 2. Determining safeguards instruments to be used.

- The requirements of the Government of Fiji are then determined. An EIA may be required depending on the scale and nature of the sub-project. An ESMP is included as part of the EIA process.
- If a sub-project does not require an EIA under GoF legislation, but is a Category B, an EIA will still be required as per the provisions of this ESMF.
- The ESMP will form part of the bidding documents and be included as contractual obligations of the winning contractors that will carry out works. The ESMP may require site specific mitigation and as such, the ESMP will form part of the contractual obligations of the winning

In general these are the criteria for categorization of the project activities.

- Category A. The activity is likely to have significant adverse environmental impacts that are sensitive diverse, or unprecedented. In addition the potential social and environmental impacts may be mostly adverse, the scope of impacts large in terms of area and/or the impacts difficult to mitigate. These impacts may affect an area larger than the sites or facilities subject to physical works.
- Category B. The activity has potential adverse environmental impacts on human populations or environmentally important areas—including wetlands, forests, grasslands, and other natural habitats—that are less adverse than those of Category A projects. These impacts are site-specific; few if any of them are irreversible; one or two site sensitivity ratings are medium or high and in most cases mitigation measures can be designed more readily than for Category A projects. Most road, bridge, and rural jetty and wharf construction activities will fall under this category.
- Category C. The activity is likely to have minimal or no adverse environmental impacts. Beyond screening, no further environmental assessment is required for a Category C project, although DOE may require an ESMP. Minor repairs to existing structures are likely to fall in this category.

More detail is provided in the detailed screening forms in Annex 2, however examples of criteria applied during the initial screening which would indicate that the sub-project would be Category A will include:

- (i) Sub-projects in or adjacent to protected areas (whether legally designated or informal) including any community managed areas or reserves and priority protected areas proposed in the Fiji National Biodiversity Strategy and Action Plan;
- (ii) any significant loss to mangroves or sensitive wetland;
- (iii) any permanent negative effect on a known rare, threatened or endangered species; and
- (iv) any permanent damage to physical cultural resources.

FRA will determine the appropriate categorization based on the definitions above and the detailed screening forms in Annex 2. ADB and WB will jointly review the FRA determination. If ADB and WB agree with the FRA determination and the Categorization is either Category B or C (since Category A projects cannot be funded by the project), categorization will not be an impediment to inclusion as a sub project.

Step 2. Determining safeguards instruments to be used.

The **second step in the screening** process is to determine what type and extent of assessment may be required. This stage is done in consultation with DOE as approving authority. The screening and project descriptions prepared will be submitted by the FRA as part of the screening application to DOE.

Upon receiving the screening application the approving authority will undertake a scoping stage to determine the Terms of Reference (TOR) for the environmental assessment process. The TOR will outline the level of detail required for the EIA and the ESMP. For sub-projects that do not require additional data and analysis, an ESMP may be prepared to address construction-

related and site-specific environment and social issues rather than a full EIA study (for example for repairs of existing structures).

The required documentation/instrument for each sub-project will be determined by DOE with the support of the DSC (and the subsequent approval by ADB and WB) during the screening phase:

- The *Fiji Code of Environmental Practice (COEP)* will apply to every project to manage construction related impacts. In addition to the COEP, the following hierarchy has been established to effectively manage the potential environmental impacts associated with the sub-projects.
- *Environmental and Social Management Plan (ESMP)*. For sub-projects that do not require additional data and analysis, an ESMP may be prepared to address construction-related and site-specific environment and social issues. Sub-projects to which only the COEP and an ESMP would apply would include sub-projects where the impacts are predictable, localized and readily mitigated. Examples would include works such as repair to existing structures, repaving of existing roads, re-decking of existing bridges (where no abutment work etc., is required), signage, lighting, drain clearing, maintenance (re-decking etc.,) to existing jetties etc. These sub-projects are likely to be Category C.
- *Environmental Impact Assessment⁴*: An EIA will be prepared for sub-projects that will require additional sub-project-specific data/information and further analysis to determine the full extent of environmental and social impacts, which cannot be supplied only by an ESMP and/or an Environmental Code of Practice (COEP). Examples of sub-projects requiring an EIA would include bridge works involving civil works, major rehabilitation works, installation of new culverts, minor realignment of a road, and new or relocated jetties/wharves. These projects are likely to be Category B.
- *LARP*: Required wherever land is acquired or where livelihood and income sources may be affected (See separate LARF).

During the scoping stage DOE will inspect the proposed site, may take samples from the site and consult with the proponent or any agency or person with relevant knowledge and expertise. The DOE may determine that it is appropriate to require the proponent to hold public scoping meetings at this stage to discuss the TOR. Public notice of the meeting must be given by the proponent at least seven days before the meeting on radio, television and newspaper.

In addition to the project categorization, the ADB and WB will need to approve the impact assessment and mitigation management document/instruments to be prepared prior to acceptance of sub-project for funding.

⁴ Environmental impact assessment (EIA) is the terminology used in Fiji's Environmental Management Act 2005. It is not equivalent to EIA in ADB's SPS or WB's OP 4.01. Within the parameters of SPS it is equivalent to an initial environmental examination as appropriate for a Category B project. All sub-projects under the Project will be Category B or C projects, and will follow the process for screening, assessment, review and implementation as set out in the ESMF prepared for the project. Category A projects are not eligible for financing under the project.

B. Preparation of Environmental Assessments and Environmental Management Plan

1. Environmental Impact Assessment

Environmental assessment in Fiji is regulated by the Environment Act 2005 and the Environment Regulations 2007. The Environment Regulations establish the procedures for undertaking environmental assessment. The environmental assessment process in Fiji is similar to the requirements of the WB and ADB. However, additional requirements of WB and ADB include sections on information disclosure, assessment of alternatives and a grievance redress mechanism.

EIA study in Fiji must be undertaken by a registered consultant and be based on the TOR. The outline contents of an EIA are included in Annex 3. The EIA consists of eleven sections:

- A Executive Summary
- B Introduction
- C. Policy, Legal and Administrative Framework
- D Description of the sub-project
- E Description of the Environment
- E Anticipated Environmental Impacts and Mitigation Measures
- F Analysis of Alternatives
- G Information Disclosure, Consultation, and Participation
- H Grievance Redress Mechanism
- I Environmental Management Plan
- J Conclusions and Recommendations

At least two public consultation stages must be held during the EIA study. The first stage of consultation is held with the community at the start of an EIA study to discuss the proposal, identify any issues or concerns and obtain any relevant local information on the site is essential to avoid issues at a later stage.

Five hard copies and one CD copy of the EIA is required to be submitted to DOE. This is so that they can circulate a copy of the EIA to relevant Government agencies (e.g. town and country planning, maritime safety, rural local authorities, etc.).

Once the EIA report is submitted, DOE must appoint an EIA review consultant or review committee (s30 Environment Act 2005). The proponent must then conduct a second stage of public consultation on the EIA report, including at least one public review meeting held in the vicinity of the proposed works.

The DOE must produce a written report outlining its decision in relation to the development proposal within 35 days of the submission of the EIA report. The DOE may approve the proposal with or without conditions, not approve the proposal or recommend additional studies.

The EIA approval does not constitute approval of the proposal under any other law (for example the State Lands Act. Once EIA approval is received, the proponent must then apply for approval under any other law(s) relating to the proposal.

For the project, FRA (supported by registered consultants) will screen each of the sub-projects and submit the screening information and project descriptions to DOE, and prepare the EIA in accordance with the TOR.

2. Environmental and Social Management Plan

Each environmental assessment will include an ESMP, prepared by FRA (with support from registered consultants) which sets out the mitigation and management measures to be taken during project implementation to avoid, reduce, mitigate, or compensate for adverse environmental or social impacts (in that order of priority). For some sub-projects where only repair to existing structures is proposed then it may be that only an ESMP is required to be submitted to DOE. This will be confirmed with DOE during the screening phase (see above). The following is to be included in an ESMP:

Sub-project description. A full description of each sub-project is to be provided in the ESMP including the rationale, development outcomes, description of the physical and social environment and details of the actual physical intervention proposed.

Impacts and Mitigation Measures. The ESMP will summarize the anticipated adverse environmental and social impacts and risks, describe each mitigation measure with technical details, and provide links to other mitigation plans (for example, for resettlement plans or reports) required for the project.

Monitoring. This part of the ESMP will describe monitoring measures with technical details, including parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits and definition of thresholds that will signal the need for corrective actions. The reporting and disclosure procedures will also be identified. Annex 5 establishes monitoring parameters.

A monitoring committee would be set up with FRA, Consultants, DOE for monitoring of large projects. Large projects will require monthly reporting. Smaller projects do not warrant a monitoring committee and can have reporting at lesser frequency.

Implementation arrangements. The ESMP will include an implementation schedule showing phasing and coordination with overall project implementation and describe the institutional organizational arrangements for responsibility for carrying out the mitigation and monitoring measures.

This section of the ESMP will also identify practical measures to strengthen environmental and social management capability that can be implemented during the project. The section will estimate capital and recurrent costs and describes sources of funds for implementing the ESMP.

Budget. Full budget for the effective implementation of the ESMP is to be provided including allocation for any implementation support requirements and capacity development etc.

Performance indicators. Where possible and practical, the ESMP will describe the desired outcomes as measurable events, such as performance indicators, targets, or acceptance criteria that can be tracked over defined time periods. Environmental standards for air quality and discharge are provided in schedules to the Environment Management (Waste Disposal and Recycling) Regulations 2007. Where standards are not provided in the Regulations the World Health Organization standards should be used.

V. CONSULTATION AND INFORMATION DISCLOSURE

For any sub-project requiring an environmental assessment, formal and documented public consultation and information disclosure will be required in accordance with the ADB SPS and Public Communications Policy 2011; World Bank requirements for public consultations with project beneficiaries and key stakeholders on safeguard documents; and government's

consultation and information disclosure requirements identified in the Environment Act. This will be done at an early stage during preparation of the assessment and is to inform stakeholders of the project components and to encourage input to help identify environmental and community issues and concerns.

The information disclosed and feedback provided at the consultation sessions will be summarized, attendance recorded, and the document attached as an annex to the EIA report. Invited participants and attendees at consultation events will include government agencies (including provincial government), village and community representatives, as well as NGOs and civil society organizations.

This ESMF will be disclosed locally in English and Fijian and be made available at the World Bank's InfoShop and on ADB website.

All consultations will follow the procedures set out in the consultation and participation plan (CPP) to be prepared for the project.

Consultation during the preparation of the ESMF was undertaken with a number of government agencies, including DOE, Nadroga/Navosa Rural Local Authority, iTaukei, Department of Lands. Minutes of meetings undertaken during the project preparation are included in Annex 6. Key issues discussed and the manner in which they were addressed is summarized in the following table:

Issue raised/discussed	Approach adopted to address issue
Gaps between GoF and International good practice (ADB and WB)	These gaps will be closed by the adoption of an agreed ESMF which ensure compliance with ADB and WB safeguard requirements.
Respective roles in organization of consultation can be unclear	Clarity provided in ESMF through the requirement that FRA undertake "Meaningful Consultation"
Owners of land can be hard to find as (on average) 60% do not live on the land	Both Lands and the iTaukei Land Trust Board have established processes for this and the project will undertake Full Prior and Informed consultation leading to Broad Community Support
Some complications arise with payment of compensation for land where the "as-built" survey has not been completed	FRA / contractor will undertake an as-built survey upon completion for contract management purposes. This can be used to ensure any corrective payments required to achieve full compensation is paid.
Land acquisition: Dept. Agriculture rates for crops and tress can be out of date; Government not supposed to pay above schedule of rates (which can be below full replacement cost)	Project will adopt WB and ADB requirements of compensation for land and other assets at full replacement cost. See LARF for more details

Customary land boundaries are agreed by common knowledge and are not surveyed. It takes about 1 day to identify the owning group for a particular piece of land.	Consultants supporting FRA will assist in identification of land boundaries, consultation arrangement and issue resolution
ILTB is funded from 10% of the proceeds from leases and sales to the state (down from 15% called poundage).	Project will adopt WB and ADB requirements of compensation for land and other assets at full replacement cost. See LARF for more details
ILTB should be the first to be approached when there is a need to consult landowners on customary land. Do not go directly to the land occupiers as it will be difficult to tell who is/is not a registered owner and who can speak for the land owning group. Many agencies do not do this and it causes problems later	FRA will work closely with the ILTB to ensure communications with land owners are transparent and clear.

VI. INSTITUTIONAL ARRANGEMENTS AND RESPONSIBILITIES

A. Fiji Roads Authority

FRA will be the implementing agency for the project. FRA will be responsible for overseeing and managing project execution including compliance with project requirements (financial management, procurement, safeguards, and monitoring and evaluation). FRA will provide a full-time environment manager. The environment manager will be consulted to ensure that the procedures and processes established in this ESMF are followed for the project. However, documentation of how the ESMF will be applied for the project will be the responsibility of the safeguards specialists within the DSC.

The role of FRA will be overall project management and decision making. Feasibility studies (including screening and analysis required for the prioritization and ranking of sub-projects, safeguards assessments and consultation), detailed designs, and supervision of construction and civil works contractor will be the responsibility of the DSC.

B. Design and Supervision Consultant

The DSC will include international and national specialists to implement the safeguard tasks as required by this ESMF and the LARF. Amongst a number of others, the DSC will include: (i) environmental safeguard specialist (international) (ESS); (ii) social safeguard/resettlement specialist (international) (SSS); (iii) safeguards specialist (national) (NSS); and (iv) gender and community development specialist (national) (GCDS). The DSC will be headed by a team leader.

General environmental management responsibilities of the DSC include:

- Updating of the COEP to reflect current FRA institutional arrangements and requirements of Environmental Management Act 2005.
- Through the team leader, ensuring that the environmental and social safeguards are implemented as set out in this ESMF so as to meet intended requirements. This includes undertaking safeguards assessments during the

feasibility study, ensuring that the ESMPs from approved environmental assessments are included as part of construction section and tendering conditions of the bid and contract documents, and monitoring is undertaken.

- Supervising the implementation of the ESMP during construction.

Within the DSC team, the ESS, SSS and NSS will have specific responsibilities for implementation of this ESMF. Their duties include:

- (i) During the project inception, brief the DSC team on the ESMF and safeguard and CPP requirements that need to be implemented during the project.
- (ii) Undertaking the screening of each sub-project (including individual components such as water crossings at different locations) and identify main environmental impacts and prepare project descriptions.
- (iii) Prepare the development consent applications including sub-project descriptions and the screening forms, and after approval by FRA submit to DOE for assessment determination.
- (iv) Prepare the assessments (EIA or just ESMP as determined by DOE) for the selected or prioritized sub-projects as required to meet the requirements of this ESMF.
- (v) Undertake adequate consultations with affected people and studies of the sub-project area/catchment to identify baseline conditions and impacts;
- (vi) Ensure that disclosure of the draft assessments is done in accordance with the project's CPP in compliance with ADB's Public Communications Policy (2011), WB and government requirements.
- (vii) Submit the environmental assessment to DOE. Arrange for a copy and the conditions of the EIA issued by DOE to be sent to the ADB/WB.
- (viii) During pre-construction, ensure that issues that need to be addressed by the design engineers are considered. Prepare a design brief containing main requirements for action by the technical design team.
- (ix) Based on detailed designs, update the ESMP from the approved environmental assessment. Integrate the revised/updated ESMP and DOE's EIA conditions into the construction section of the bid and contract documents.
- (x) With the GCDS arrange public consultation to advise affected communities of the scope and scheduling of the sub-project and to raise awareness within the communities of the likely phasing of events that will occur within their boundaries.
- (xi) If required by the team leader, provide a review of environmental and social management aspects during bid evaluation.
- (xii) Following the award of the contract and prior to submission of the construction ESMP (CESMP), provide ESMP and safeguards induction for the contractor (if required).
- (xiii) Ensure that contractor has access to the environmental assessments and other relevant safeguard documents of the sub-projects and the EIA conditions issued by DOE.
- (xiv) Evaluate, and when satisfactory, advise team leader and/or FRA that the CESMP may be approved.
- (xv) Advise the contractor of their responsibilities to mitigate environmental and social impacts and issues associated with construction activities.
- (xvi) With the project engineer, supervise and monitor the contractor's compliance with the approved CESMP. As required, issue defect notices concerning non-compliant work which will be channeled to the contractor via the project

engineer. Any instructions or requirements for corrective actions will be issued through the project engineer.

- (xvii) Prepare reports of site visits and compliance checks at least every two months, contribute to the quarterly progress reports (summary of compliance reports and contractor's monthly reports and any other safeguards activities including training seminars or workshops and the like), and prepare safeguards monitoring reports twice per year.

C. The Contractor

The contractor will be responsible for complying with the environmental management requirements included in the contract as follows:

- (i) Prior to construction commencing, the contractor will address the construction section of the ESMP which will be developed into the detailed CESMP that addresses the EIA conditions and details working statements and methodologies as required by the ESMP. It will include a monitoring plan and a reporting program. Submit the CESMP to the DSC for clearance.
- (ii) Designate an environmental and safety officer and deputy environmental and safety officer who will take lead responsibility for implementation of the CESMP.
- (iii) Provide briefings and training seminars for all workers (and sub-contractors as relevant) on the CESMP and safeguards requirements governing the project.
- (iv) Following approval of the CESMP, the contractor is required to attend a site meeting where the CESMP is further discussed to ensure that all compliance conditions are clearly understood.
- (v) The contractor's site engineer and environmental and safety officer will be responsible for daily supervision of the CESMP and supervision of necessary social and environmental mitigation measures as described in the project's safeguard documents. The contractor is required to undertake work as directed by the project engineer (who will be assisted by the ESS and NSS). If the work is non-compliant with the CESMP or conditions, the contractor must respond to the defect notice issued and rectify the issue or work.
- (vi) The contractor will cover CESMP implementation, including HIV/AIDS prevention and awareness training, necessary social and environmental mitigation measures, grievance redress, in the monthly reports that will be submitted to the DSC. The report will also contain the monthly accident/incident report.

D. Department of Environment

The DOE will be responsible for: (i) respond to the initial screening application and determine what assessment is required for each sub-project and review the assessment reports when submitted; (ii) issue EIA approval with or without conditions or advise on why it has not been approved; (iii) participate in a monitoring committee and review monthly monitoring reports (for larger projects), (iv) undertake periodic monitoring of the sub-projects and implementation of EIA conditions as required; and (v) undertake to review the environmental grievances or complaints that cannot be resolved through the GRM.

E. Asian Development Bank/World Bank

During the project, the ADB and WB will provide support to FRA as required during review missions and at other times as required. ADB/WB will play a role in a number of key steps

including review and clearance of environmental assessments prepared for sub-projects and safeguards monitoring reports and disclosure of these documents as per Public Communication Policy 2011 and WB requirements. Review missions will review the procedures being implemented by DSC, FRA, and the contractor, and will include review of screening, assessment, consultations, ESMP updating, bid documents, and monitoring.

Table 3 below shows the role played by ADB and WB at each respective step where:

- “Input” designates contribution to preparatory activities and
- “Joint” designates clearance activities

Table 3: Role played by ADB and WB at each respective step

Safeguards	ADB/WB	Notes
Environmental		
Screening of sub-projects	Joint	The ESMF will guide GoF in categorizing sub-projects and identifying required safeguards instruments to be carried out. Sub-project selection criteria will exclude sub-project with significant environmental impact (Category A projects) as per the definition in the ADB SPS 2009 and the WB OP 4.01 (OP 4.01). Annex 2 forms to be used.
Submit and review EIA application for sub-projects	Input	DOE’s EIA Screening Application form (EMA/EIAP1) to be completed by FRA/DSC and jointly reviewed by ADB/WB.
Prepare ToRs for EIA Consultant	Input	Preparer of assessments must be accredited and registered with DoE. An ESMP is included as part of the mitigation process for specific sub-projects.
Prepare EIAs for sub-projects	Input	Carry out public consultations on results of EIAs and proposed ESMPs based on process and content set out in ESMF.
Clear EIA/ESMPs	Joint	ADB and WB jointly review and clear EIAs. Preparation and clearance of EIAs must be completed and DoE issues permit before works can commence.
Ensure ESMPs included as part of bidding documents and in final contracts of winning bidders	Input	ESMP included in bid documents for each sub-project. Costs for specific items integrated with Bill of Quantities (BoQs) for civil works. ADB to confirm ESMPs included when reviewing bidding documents.
Clear Construction ESMPs (CESMP)	Joint	CESMPs jointly cleared by ADB/WB and government before works commence.
Monitor implementation and compliance of approved CESMPs and review monitoring reports submitted.	Joint	Two supervision missions to be carried out annually. GoF to prepare and disclose compliance monitoring reports prior to arrival of missions. ADB and WB to disclose monitoring reports.
Management of complaints	Input	In the event of a complaint received by either ADB or WB, each partner will inform the other through official communication. A common register of complaints will be established.
Social		

Involuntary Resettlement		
Prepare a LARP for all sub-projects	Input	<ul style="list-style-type: none"> • In addition to WB Year 1 project/ADB sample project for which a LARP was prepared, LARPs will be prepared for subsequent sub-projects where the acquisition of land or property, or where resettlement impacts are identified. FRA/IA will be responsible for preparing LARPs following the LARF. Details of LARPs will consider magnitude of impact. • During preparation of LARPs, (i) a complete and accurate count of the population and asset inventory to be affected by land acquisition and related impacts will be completed to determine eligibility and cutoff date for compensation, and (ii) valuation of lost assets for compensation or asset replacement Will be undertaken following methods as per the LARF, TLTB and Department of Land (DoL) can assist with negotiation between landowners and Government, as well as land valuation process. • If land owners want independent valuation of property, FRA/IA to prepare ToRs to select external/independent evaluator, as per LARF.
Clear LARP/ESMPs	Joint	ADB and WB jointly review and clear LARPs.
Disclose and consult on LARP	Input	Government consults on LARP and publicly discloses in sub-project areas in both Fijian and English. Findings from consultations to be incorporated in, and clearances obtained of LARP from ADB and WB prior to commencement of civil works. WB discloses LARP on InfoShop following internal clearance. ADB discloses LARP on its website.
Implement LARPs	Input	<ul style="list-style-type: none"> • Implementation will be carried out by FRA with support from TTLB and DoL. If there is potential for disputes, advice from ADB/ WB regional safeguard advisor to be obtained. • Payments for any form of compensation must be made prior to the commencement of works and in accordance with cut-off date for determining eligibility (i.e., prior to impacts being experienced).
No objection to start construction	Joint	ADB and WB provide no objection to start civil works after resettlement measures set out in LARF and LARP have been implemented. Payments for any form of compensation must be made prior to the commencement of works (i.e. prior to impacts being experienced).
Monitor resettlement process	Input	FRA to monitor implementation of land acquisition/resettlement activities following the internal monitoring procedures (including formats)

		and responsibilities described in LARF and LARP.
Review monitoring reports	Joint	ADB and WB teams ensure that monitoring reports are prepared and submitted according to schedule provided in the LARP. Monitoring reports reviewed by resettlement specialist and comments conveyed to FRA.
Management of complaints	Input	In the event of a complaint received by either ADB or WB, each partner will inform the other through official communication. A common register of complaints will be established.

VII. GRIEVANCE REDRESS MECHANISM

The grievance redress mechanism (GRM) will be based on traditional systems for conflict and dispute resolution and will be used to resolve, as far as possible, problems, concerns or grievances created by the project. The GRM is also integrated into the LARF and the LARPs prepared for future sub-projects.

The following process is to be used and is based on the principle of dealing with concerns as far as possible directly at sub-project level as a first stage. If this cannot be resolved then the grievance will be referred to the environment manager in FRA.

A. During construction

The contractor's responsibility in respect of consultation and communication will be set out in the CPP and the relevant section of the CPP will be integrated into the ESMP and bid and tender documents. The contractor will engage with communities primarily through the community advisory committees and specific grievance redress committees established in each sub-project area and recorded in the EIA. The protocols for behavior of workers and conduct in and around villages will be set out in the CPP and will be an element of the ESMP to help mitigate any impacts resulting from construction workforce and camp.

Affected people are in the first place to discuss their complaint directly with the Turanga-ni-Koro (elected administrative head) in their village. If the Turanga-ni-Koro supports the complaint both persons take the complaint to the contractors site office. For those who wish to remain anonymous, a register of their complaint or issue can be made on a register held with the village head. This register will be provided to the Turanga-ni-Koro as per the above.

Any complaints arriving at the contractor's site office will be recorded in a register that is kept at the site and which will be subject to monitoring. The register will record complaints by date, name, contact address and/or phone number if available, and reason for the complaint. If the complainant desires, their identity may be kept anonymous but the nature of their concern should still be recorded. A duplicate copy of the entry is given to the person making the complaint for their record at the time of registering the complaint. The duplicate copy given to the complainant will also show the procedure that will be followed in assessing the concern or complaint, together with a statement affirming the rights of the person to make a complaint. For straightforward grievances, the project engineer can make an on-the-spot determination to resolve the issue.

The register will show:

- who has been directed to deal with the concern/complaint
- the date when the complaint was made
- the date when the complainant was informed of the decision, and
- how the decision was conveyed to the complainant.

The register is then signed off by the person who is responsible for the decision and dated. The register is to be kept at the front desk of the contractors site office and will be a public document. For anybody making a complaint no costs will be charged.

For more complicated complaints the project engineer will forward the complaint to FRA's environment manager. The environment manager has a maximum of five days to resolve the complaint and convey a decision to the affected person. The affected person and the Turanganī-Koro may, if so desired, discuss the complaint directly with the project engineer/environment manager. If the complaint of the affected person is dismissed the affected person will be informed of their rights in taking it to the next step. A copy of the decision is to be sent to DOE.

Should the person who made the complaint or raised the issue not be satisfied, the affected person may take the complaint to DOE to review the complaint. The DOE will have 10 days to make a determination.

If the affected person is dissatisfied with the determination they may appeal to the National Court. This will be at the affected persons cost but if the court shows that the project engineer, or the environment manager have been negligent in making their determination, the affected person will be able to seek costs.

B. During Operation

The same procedure is followed except that the complaint is now directed to the FRA rather than the contractor's site office. During operation, the same conditions apply; i.e., there are no fees attached to the affected person for making a complaint, the complainant is free to make the complaint which will be treated in a transparent manner and the affected person will not be subject to retribution for making the complaint.

VIII. MONITORING AND REPORTING

Each ESMP will contain a monitoring and reporting program suitable for the sub-project. The DSC will be responsible for reviewing and updating the monitoring program to ensure that it meets the intention of the ESMP and the ESS, NSS and contractor will be responsible for carrying it out. The DSC will undertake safeguards supervision and monitoring at least every two months (monthly for larger projects – as determined by DOE during screening phase), in addition to CESMP compliance checking being undertaken on a daily basis by the project engineer. Following the supervision and monitoring checks, reports will be prepared and submitted to DOE and FRA.

The DSC will prepare quarterly progress reports that will summarize the CESMP compliance monitoring undertaken by ESS and NSS and the contractor's monthly reports. These reports will be submitted to FRA, DOE, WB and ADB.

The DSC will prepare semi-annual safeguards monitoring reports, and submit to FRA, DOE, WB and ADB. These reports will be disclosed to the public.

ADB/WB will prepare a project completion report after the project has finished. This report will summarize safeguards implementation (including any requirements for capacity building) and monitoring and comment on compliance with the ESMF).

ANNEX 1 – INTERNATIONAL AGREEMENTS AND CONVENTIONS

Regional Agreements

- (i) Natural Resources & Environment of South Pacific Region (SPREP Convention). Ratified 1989.
- (ii) Waigani Convention on Hazardous & Radioactive Wastes 1996. Bans the importation and the trans-boundary movement and management of hazardous wastes within the South Pacific region.

Chemicals, Wastes and Pollution

- (i) Convention on Oil Spill Preparedness, Response, and Cooperation (OPRC Convention). 1990. International cooperation in combating major incidents or threats of marine pollution.
- (ii) POPs Convention (Stockholm). 2001. Bans use of persistent organic pollutants.

Biodiversity

- (i) CITES, ratified 1997. Regulates trade in wild animals and plants
- (ii) World Heritage Convention. Ratified 1990. Protection of sites of Outstanding Universal Values.
- (iii) Convention on Biological Diversity (UNCBD). Ratified 1995.
- (iv) Desertification (UNCCD). Acceded 1999. Agreement to combat desertification and drought.
- (v) Convention on wetlands of international importance (RAMSAR Convention). 1971. Provides framework for conservation of wetlands of importance to migrating birds.
- (vi) Convention on the conservation of nature in the South Pacific (Apia Convention). 1989. Parties to protect areas to safeguard representative samples of ecosystems and protect indigenous species.
- (vii) UN Convention of the Law of the Sea. 1994. Equitable and efficient use of ocean resources, conservation of living resources and protection of the marine environment.
- (viii) Rio declaration (Agenda 21). 1992. Promote the sustainable use of resources.

Climate

- (i) Montreal Protocol. 1989. Phase out of substances that deplete the ozone layer.
- (ii) Ozone Layer Convention (Vienna). 1989. Protection of the ozone layer.
- (iii) Climate Change (UNFCCC). Ratified 1992.
- (iv) Kyoto Protocol. Ratified 1998. Reduce greenhouse gases especially CO₂ by an average of 5.2% by 2012.

ANNEX 2

SCREENING DOCUMENTS

Environmental and Social Safeguard Screening Form S.1: Social Impacts

Type of Impact	Yes	No	Comment
1. Land – Does the Sub-project require land?			
1.1 If “Yes”, state how much land	Ha		
1.2 Was an alternative design explored to decrease/avoid land take			
1.3 If yes, how much land was required in the alternative design?	Ha		
1.4 How is this land provided:			
Donation			
Long-term lease			
Willing-seller-willing-buyer			
Available government land			
Involuntary acquisition			
1.5 Is documentation attached in case of donation, purchase, or use of Government land			
2. Involuntary Resettlement			
2.1 Are there losses of shelter?			
2.2 Are there losses of income sources and other assets? How many households are affected?			List no. of households affected:
2.3 Are there available resources to compensate them at replacement value? Source of funds?			If yes, describe source:
2.4 What other resettlement benefits are committed to the affected families?			If yes, describe other benefits:
2.5 Have the affected household agreed to the relocation?			
2.6 Will the project have any impacts on customary fishing practices or access to			

shared resources relied upon for livelihood purposes			
3. Indigenous People			
2.1 Are there indigenous peoples in the study area?			
2.2 If "Yes", are they among the beneficiaries?			
2.3 Will they be negatively impacted?			Describe mitigation measures:
4. Cultural Property			
Any negative impacts on cultural property such as sites, historical buildings etc.			
5. Environmental Impacts			
Attach sub-project specific check-list with - Possible negative impacts and - Proposed mitigation measures (See <u>Environmental and Social Safeguard Screening Form S.2 and S.3</u>)			

Environmental Safeguard Screening Form S.2: Environmental Screening for Roads or Bridges

Name of the Sub-project: _____

Potential Impact	Assessment {Put only one tick (✓) in each row}		Mitigation Plans / Instruments
	NO Negative Impact or <u>NOT Significant</u>	Significant Impact	
Removal of vegetation.			
Increased landslides during and after construction.			
Dust pollution during construction activities.			
Risk of accidents involving construction materials, pollution of water courses and agricultural lands.			
Pollution from ancillary activities like preparation of asphalt, crushing of aggregate, concrete mixing, etc.			
Increased erosion downstream of waterways being crossed.			
Disruption of aquatic ecosystem during construction due to excessive sediment, discharge of waste concrete or accidental spillage of oil & grease to nearby water bodies.			
Increased noise due to construction and increased traffic.			
Increased risk of accidents due to increased and faster traffic.			
Generation of solid waste during construction.			
Loss of wildlife habitat which may have established.			
Entry of migrants.			
Impact to Indigenous people; effect on access, food gathering, etc., during construction and operation.			
Negative reaction to public due to poor information.			

Environmental Safeguard Form S.3: Environmental Screening for Jetties/Wharves Development

Name of the Sub-project: _____

Potential Impact	Assessment {Put only one tick (√) in each row}		Mitigation Plans / Instruments
	NO Negative Impact or <u>NOT Significant</u>	Significant Impact	
Safety hazards during construction.			
Visual blight and dirt due to improper disposal of material.			
Water quality impacts during construction.			
Localized clearing of vegetation (including mangroves) and disturbance of marine life.			
Increased solid waste.			
Oil and grease contamination during construction.			
Obstruction of natural flow of water or sediments.			
Uncontrolled increase of micro economic activities.			
Design is gender sensitive.			
Entry of migrants.			
Increased traffic.			
Peace and order problems.			

Environmental Safeguard Form S.4: Safeguard Policy Triggering and Safeguard Document Requirements

Question	Answer		If Yes Policy triggered	Documents Required
	Yes	No		
Are the sub-project impacts likely to have significant adverse environmental impacts that are sensitive, ⁵ diverse or unprecedented? ⁶ Please provide brief description:			<i>OP 4.01 Environmental Assessment</i> <i>SPS: SR1 Category A</i>	If "No": EIA/ESMP If "Yes": not eligible for project financing as would be Cat A
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</i> <i>SPS: SR1</i>	If "No": EIA/ESMP If "Yes": not eligible for project financing as would be Cat A
Is the proposed project likely to have minimal or no adverse environmental impacts? ⁷ Please provide brief justification.			<i>OP 4.01 Environmental Assessment</i> <i>SPS: R1 Category C</i>	COEP ESMP
Is the project neither a Category A nor Category C as defined above? ⁸ Please provide brief justification.			<i>OP 4.01 Environmental Assessment</i> <i>SPS: R1 Category B</i>	EIA (and ESMP)

⁵ 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) and SPS SR:1, policy principles 8 and 11.

⁶ Examples of projects in the transport sector 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 or ports.

⁷ 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.

⁸ Projects that do not fall under Category A or Category C can be considered as Category B. Examples of Category B sub-projects include small scale *in-situ* reconstruction of infrastructure projects such as road or bridge rehabilitation etc.

Question	Answer		If Yes Policy triggered	Documents Required
	Yes	No		
Are the project impacts likely to have significant adverse social impacts that are sensitive, diverse or unprecedented? ⁹ Please provide brief description.			<i>OP 4.01 Environmental Assessment</i> <i>SPS: SR1 Category A</i>	If "No": EIA/ESMP If "Yes": not eligible for project financing as would be Cat A
Will the project adversely impact physical cultural resources? ¹⁰ Please provide brief justification.			<i>OP 4.11 Physical Cultural Resources</i> <i>SPS: SR1 (Policy Principle 11)</i>	Addressed in EIA (EIA with PCR Management Plan and/or Chance Find Procedures)
Will the project involve the conversion or degradation of non-critical natural habitats? Please provide brief justification.			<i>OP 4.04 Natural Habitats</i> <i>SPS SR:1 (Policy Principle 8)</i>	Addressed in EIA
Will the project involve the significant conversion or degradation of critical natural habitats? ¹¹			<i>OP 4.04 Natural Habitats</i> <i>SPS SR:1 (Policy Principle 8)</i>	If "No": EIA/ESMP If "Yes": not eligible for project financing as would be Cat A

⁹ Generally, sub-projects 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 sub-project to sub-project. Sub-projects that would require physical relocation of residents or businesses, as well as sub-projects 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. Sub-projects 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. Sub-projects 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.

¹⁰ 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.

¹¹ Sub-projects 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.

Question	Answer		If Yes Policy triggered	Documents Required
	Yes	No		
Does the sub-project 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> <i>SPS SR: 2</i>	Land Acquisition and Resettlement Plan
Are Indigenous Peoples' communities present in, or do they have collective attachment to, the sub-project area?			<i>OP 4.10 Indigenous Peoples</i> <i>SPS SR: 3</i>	Elements of IPP designed into project and applicable safeguard instruments (ESMP/LARP etc.)

Only those World Bank Safeguard Policies considered most relevant during project design have been triggered. The following safeguard policies have not been triggered as they are not considered relevant: (i) OP 4.37 Dam Safety, (ii) OP4.09 Pest Management, (iii) OP4.36 Forestry (iv) OP7.60 Projects in Disputed Areas, and (v) OP7.50 Projects on International Waterways. Of these un-triggered safeguard policies, OP4.36 Forestry is the only policy considered to have any possibility of being triggered. Accordingly, to ensure all World Bank safeguard policies are fully considered in the screening of sub projects, the questions in the following table should also be answered. If the answer to any question is "Yes" OP4.36 Forestry also will need to be triggered.

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> <i>SPS: SR1</i>	Addressed in EIA
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> <i>SPS: SR1</i>	If "No": EIA/ESMP If "Yes": not eligible for project financing as would be Cat A

Environmental and Social Safeguard Screening Form S.5: Agreed Environmental and Social Safeguard Categorization and Safeguard Documents Required

The sub-project is classified as a Category project as per World Bank and ADB Safeguard policy requirements, and the following safeguard documents/instruments will be prepared:

- 1
- 2
- 3
- 4
- 5

Categorization Note:

Environmental Category A: if it is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented, and impacts may affect an area larger than the sites or facilities subject to physical works. **Category B** if its potential adverse environmental impacts are less adverse than those of Category A projects, impacts are site-specific, few if any of them are irreversible, and in most cases mitigation measures can be designed readily. A project is **Category C** if it is likely to have minimal or no adverse environmental impacts.

Involuntary Resettlement Category A: If impacts on the displaced population are significant (where the affected people are physically displaced and more than 10 percent of their productive assets are lost), or more than 200 people are displaced. **Category B:** If impacts on the displaced population are minor (where the affected people are physically displaced and less than 10 percent of their productive assets are lost), or less than 200 people are displaced

ANNEX 3 - CONTENTS OF ENVIRONMENTAL ASSESSMENTS

A. Executive Summary

This section describes concisely the critical facts, significant findings, and recommended actions.

B. Introduction

This section explains why, for whom and by whom the EIA has been prepared. Include sub-sections on the following:

- Statement of need (the objective of the project)
- Justification for the necessity of the project
- Tabulation of personnel involved in the preparation of the EIA, their expertise and their roles

C. Policy, Legal, and Administrative Framework

This section discusses the national and local legal and institutional framework within which the environmental and social assessment is carried out. It also identifies project-relevant international agreements to which the country is a party.

D. Description of the Project

Describe the project; this can be brief, but should include drawings and maps at a conceptual level illustrating the layout and components, the project site and the projects area of influence. The following should be provided:

- Scope of Work and Development Concept plan
- Location criteria, including constraints
- Area for development and the current types of uses
- The proposed materials to be used (including brief description on quantities, sources and nature of materials for fill, aggregate for construction etc.) and the transport methods and routes;
- Excavation (including earthworks), clearing to be undertaken.
- Methods of storm water drainage, including details of the expected volumes and velocity of discharge and the proposed point/s of discharge into receiving water ways
- Infrastructure and utilities to be applied on site
- Waste Management Plan and practices during construction

E. Description of the Environment (Baseline Data)

This section describes relevant physical, biological, and socioeconomic (including cultural characteristics) conditions within the study area. It also looks at current and proposed development activities within the project's area of influence, including those not directly connected to the project. It indicates the accuracy, reliability, and sources of the data.

F. Anticipated Environmental and Social Impacts and Mitigation Measures

This section predicts and assesses the project's likely positive and negative direct and indirect impacts to physical, biological, socio-economic (including worker and community health and safety in the project's area of influence), in quantitative terms to the extent possible; identifies mitigation measures and any residual negative impacts that cannot be mitigated; explores opportunities for enhancement; identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions and specifies topics that do not require further attention; and examines global, trans-boundary, and cumulative impacts as

appropriate. The assessment of social impacts would include the effect of the project on the community in general and on the vulnerable groups such as the Persons with Disabilities, Children and Women among others.

G. Analysis of Alternatives

This section examines alternatives to the proposed project site, technology, design, and operation—including the no project alternative—in terms of their potential environmental impacts; the feasibility of mitigating these impacts; their capital and recurrent costs; their suitability under local conditions; and their institutional, training, and monitoring requirements. It also states the basis for selecting the particular project design proposed and, justifies recommended emission levels and approaches to pollution prevention and abatement.

H. Information Disclosure, Consultation, and Participation

This section: (i) describes the process undertaken during project design and preparation for engaging stakeholders, including information disclosure and consultation with affected people and other stakeholders; (ii) summarizes comments and concerns received from affected people and other stakeholders and how these comments have been addressed in project design and mitigation measures, with special attention paid to the needs and concerns of vulnerable groups, including women, the poor, and Indigenous Peoples; and (iii) describes the planned information disclosure measures (including the type of information to be disseminated and the method of dissemination) and the process for carrying out consultation with affected people and facilitating their participation during project implementation.

I. Grievance Redress Mechanism

This section describes the grievance redress framework (both informal and formal channels), setting out the time frame and mechanisms for resolving complaints about environmental and social performance. This should be based on traditional conflict resolution or custom processes as much as possible and form part of the GRM for the overall program as set out in the PSA and LARP.

J. Environmental and Social Management Plan

This section deals with the set of mitigation and management measures to be taken during project implementation to avoid, reduce, mitigate, or compensate for adverse environmental (in that order of priority). It may include multiple management plans and actions. It includes the following key components (with the level of detail commensurate with the project's impacts and risks):

(i) Mitigation: (a) identifies and summarizes anticipated significant adverse environmental and social impacts and risks; (b) describes each mitigation measure with technical details, including the type of impact to which it relates and the conditions under which it is required (for instance, continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate; and (c) provides links to any other mitigation plans (for example, for involuntary resettlement, Indigenous Peoples, or emergency response) required for the project.

(ii) Monitoring: (a) describes monitoring measures with technical details, including parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits and definition of thresholds that will signal the need for corrective actions; and (b) describes monitoring and reporting procedures to ensure early detection of conditions that necessitate particular mitigation measures and document the progress and results of mitigation.

(iii) Implementation arrangements: (a) specifies the implementation schedule showing phasing and coordination with overall project implementation; (b) describes institutional or organizational arrangements, namely, who is responsible for carrying out the mitigation and monitoring

measures; (c) identification of measures to strengthen environmental and social management capability: technical assistance programs, training programs, procurement of equipment and supplies related to environmental management and monitoring, and organizational changes; and (d) estimates capital and recurrent costs and describes sources of funds for implementing the environmental and social management plan.

(iv) Performance indicators: describes the desired outcomes as measurable events to the extent possible, such as performance indicators, targets, or acceptance criteria that can be tracked over defined time periods.

K. Budget. Full budget for the effective implementation of the ESMP is to be provided including allocation for any implementation support requirements and capacity development etc.

L. Conclusion and Recommendation

This section provides the conclusions drawn from the assessment, including whether any further and more detailed assessment is required, and provides recommendations.

M. References

N. Appendices

ANNEX 4 – Incorporating Elements of an IPP into Overall Project Design (Category B Projects)

To ensure compliance with OP 4.10, guidance provided in the *Environmental and Social Safeguard Instruments for the Pacific* including elements of an IPP will be incorporated into overall project design and incorporated into the safeguard documents (LARP if resettlement impacts, EIA and/or ESMP if no resettlement impact). Guidance for this is included below:

IPP Elements (OP 4.10, Annex B)	Best Available Means for Incorporation
1. Summary of legal and institutional framework, and baseline data, as relating to Indigenous Peoples in the project context.	To the extent that such information is relevant in the project context, it may be incorporated into the social assessment and LARP if resettlement impacts, EIA and/or ESMP if no resettlement impact.
2. Summary of social assessment findings.	This summary is, can be incorporated into the social assessment and LARP if resettlement impacts, EIA and/or ESMP if no resettlement impact.
3. Summary of consultations with Indigenous Peoples communities.	Some or all of the necessary consultations can be conducted in tandem with the social assessment process and consultation results can be presented within the social assessment and LARP, EIA and/or ESMP. For consultations conducted independent of the social assessment process, or after the social assessment process is completed, consultation results including assessment of Indigenous Peoples communities' support for the project and its objectives can be summarized in the LARP/EIA/ESMP.
4. Actions to ensure that Indigenous Peoples receive culturally appropriate social and/or economic benefits.	Such actions can be incorporated into be incorporated into the social assessment and LARP if resettlement impacts, EIA and/or ESMP if no resettlement impact. If Indigenous Peoples also are to be affected by land acquisition or loss of access to natural resources, measures to address these impacts should also be incorporated into the Land Acquisition and Resettlement Plan.
5. Actions to address any adverse impacts on Indigenous Peoples communities.	Such actions can be incorporated into the social assessment and LARP if resettlement impacts, EIA and/or ESMP if no resettlement impact. If Indigenous Peoples also are to be affected by land acquisition or relocation, mitigation measures must be incorporated into

	the Land Acquisition and Resettlement Plan.
6. Cost estimates and financing plan for implementing actions or activities.	Where any actions relating to provision of benefits or mitigation of adverse impacts are necessary, costs are estimated and financial arrangements are specified in the social assessment and LARP if resettlement impacts, EIA and/or ESMP if no resettlement impact.
7. Appropriate grievance procedures.	Appropriate grievance procedures may be incorporated into the social assessment and LARP if resettlement impacts, EIA and/or ESMP if no resettlement impact.
8. Monitoring and evaluation arrangements.	Monitoring and evaluation arrangements regarding Indigenous Peoples may be incorporated into the social assessment and LARP if resettlement impacts, EIA and/or ESMP if no resettlement impact.

ANNEX 5 - ENVIRONMENTAL STANDARDS

The Environmental Management Regulations under the Fiji Environmental Management Act 2005 provide emission standards for discharges to air or liquid waste effluent discharges. Ambient air quality standards are provided in Schedule 5 (Part A), Part 4 of the Environmental Management Regulations 2007 (see below).

NATIONAL AIR QUALITY STANDARDS

PART A - AMBIENT AIR QUALITY STANDARDS

THRESHOLD CONCENTRATION TABLE

Pollutant	Threshold Concentration	Permissible Excess
Carbon monoxide	10 milligrams per cubic metre	One 8-hour period in a 12-month period expressed as a running 8-hour mean
Nitrogen dioxide	200 micrograms per cubic metre	9 hours in a 12-month 94 period expressed as a 1-hour mean
Ozone	150 micrograms per cubic metre	Not to be exceeded at any time
Sulphur dioxide	350 micrograms per cubic metre	9 hours in a 12-month period expressed as a 1-hour mean
	OR 570 micrograms per cubic metre	Not to be exceeded at any time
PM10	50 micrograms per cubic metre	One 24-hour period in a 12-month period expressed as a 24-hour mean

Notes

1. The ambient air quality standard for a pollutant listed in column 1 of the Table is that the concentration of the pollutant must not exceed its threshold concentration except to the extent and in the circumstances (if any) listed in column 3.
2. The threshold concentration in relation to a pollutant is the concentration of the pollutant shown in column 2 of the Table, calculated over the time interval specified in column 3.
3. In the Table –

“1-hour mean”	<ol style="list-style-type: none"> (a) means a mean calculated every hour on the hour for the preceding hour; and (b) in relation to a pollutant at a particular location for a particular hour, means the mean of not more than 10-minute means, collected not less than once every 10 seconds, for the pollutant at that location during that hour;
“24-hour mean”	<ol style="list-style-type: none"> (a) means a mean calculated every 24 hours at midnight for the preceding 24 hours; and (b) in relation to a pollutant at a particular location for a particular 24-hour period, means -

- (i) the mean level at which the pollutant is recorded in the air, by continuous sampling of the air at that location, throughout that 24-hour period; or
- (ii) the mean of the 1-hour means for that pollutant at that location for the preceding 24 hours;
- “running 8-hour mean” (a) means a mean calculated every hour on the hour for that hour and the preceding 7 hours to give 1 running 8-hour mean per hour; and
- (b) in relation to a pollutant at a particular location for a particular hour, means the mean of the 1-hour means for that pollutant at that location for that hour and the preceding 7 hours.

MONITORING METHODS FOR AMBIENT AIR QUALITY STANDARDS

Contaminant	Monitoring Method
Carbon monoxide	Australian Standard AS 3580.7.1:1992, Methods for sampling and analysis of ambient air---Determination of carbon monoxide---Direct-reading instrumental method
Nitrogen dioxide	Australian Standard AS 3580.5.1:1993, Methods for sampling and analysis of ambient air---Determination of oxides of nitrogen---Chemiluminescence method
Ozone	Australian Standard AS 3580.6.1:1990, Methods for sampling and analysis of ambient air---Determination of ozone---Direct-reading instrumental method
PM10	United States Code of Federal Regulations, Title 40---Protection of Environment, Volume 2, Part 50, Appendix J---Reference method for the determination of particulate matter as PM10 in the atmosphere; OR Australian/New Zealand Standard AS/NZS 3580.9.6:2003, Methods for sampling and analysis of ambient air---Determination of suspended particulate matter---PM10 high volume sampler with size-selective inlet---Gravimetric method
Sulphur dioxide	Australian Standard AS 3580.4.1:1990, Methods for sampling and analysis of ambient air---Determination of sulphur dioxide---Direct-reading instrumental method.

PART B – EMISSIONS STANDARDS

Section 1 - General

1. A point source of an air polluting substance should not, in isolation or combination with any other source of that substance, cause a concentration of that substance in the ambient air to exceed the emission standards set out in section 3 below.
2. The concentration of a point source of a substance may be calculated by using any of the following methods - the relevant modelling protocol contained in *Industrial Source Complex (ISC3) Dispersion Models* (United States Environmental Protection Agency, Office of Air Quality Planning and Standards, Emissions, Monitoring, and Analysis Division, USEPA-454/B-95-003a), or other
 - (a) equivalent model approved by the Department of Environment;
 - (b) surface meteorological data from an appropriate source;
 - (c) mixing height data from an appropriate source;
 - (d) emission temperature and volume data;
 - (e) the height of emission;
 - (f) any other relevant data or criteria as specified in the models listed in paragraph (a)

Section 2 - Classification of substances

Substances are classified in Tables 1 and 2 in the following categories according to toxic, persistent and carcinogenic qualities:

Category 1 - Environmentally Toxic and Persistent or Carcinogenic Substances

The concentration of solid substances must not exceed 2.5 mg/Nm³ at the point of the exhaust. The concentration of a gas, vapour or haze of a substance must not exceed the MAC-value specified in Table 2 at the point of the exhaust.

Category 2 - Environmentally Toxic and Non-Persistent Substances

The concentration of solid substances must not exceed 25 mg/Nm³ at the point of the exhaust. The concentration of a gas, vapour or haze of a substance, if exhausted at roof level, must not exceed 10 X the MACvalue specified in Table 2 at the point of the exhaust.

Category 3 - Mildly Toxic but Environmentally Persistent Substances

The concentration of solid substances in this category must not exceed 75 mg/Nm³ at the point of the exhaust. The concentration a gas, vapour or haze of a substance, if exhausted at roof level, must not exceed 10 X the MAC-value specified in Table 2 at the point of the exhaust.

Category 4 - Non-Toxic and Non-Persistent Substances

The concentration of solid substances must not exceed 100 mg/Nm³ at the point of the exhaust. The concentration of gas, vapour or haze of a substance, if exhausted at roof level, must not exceed 10 X the MAC value specified in Table 2 at the point of the exhaust.

Section 3 - Emission Standards (Dioxins and Furans and other Substances)

1. The sum concentrations of:

- (a) 2,3,7,8-Tetrachlorodibenzo-P-Dioxin,
- (b) 1,2,3,7,8-Pentachlorodibenzo-P-Dioxin,
- (c) 1,2,3,6,7,8-Hexachlorodibenzo-P-Dioxin,
- (d) 1,2,3,7,8,9-Hexachlorodibenzo-P-Dioxin,
- (e) 1,2,3,4,7,8-Hexachlorodibenzo-P-Dioxin,
- (f) 2,3,7,8-Tetrachlorodibenzofuran,
- (g) 2,3,4,7,8-Pentachlorodibenzofuran,
- (h) and 1,2,3,6,7,8-Hexachlorodibenzofuran

should not exceed, at the point of the exhaust, 0.5 nanograms/Nm³ in any emission.

2. The concentration of any Category 1 solid substances listed in Table 1 should not exceed 2.5 mg/Nm³ at the point of the exhaust.

Table 1 - Solid substances

Substance	Category	Air Quality Guideline mg/m ³
Ammonium compounds	3	0.03
Antimony compounds	2	0.01
Arsenic compounds	1	0.001
Asbestos	1	0.001
Bariumsulfate	3	0.03
(Other) Barium compounds	2	0.01
Bitumen	3	0.03
Bone-meal	2	0.01
Cadmium	1	0.001
Calcium hydroxide	3	0.03
Calcium oxide	3	0.03
Chromium and Chromium compounds	1	0.001
Copper and Copper compounds	2	0.01
Corn or flour dust	4	0.03
Cyanides (Sodium and Calcium compounds)	1	0.001
DDT and related compounds	1	0.001
Fertiliser (phosphates)	3	0.03
Lead and Lead compounds	1	0.001
Magnesium compounds	3	0.03
Nickel compounds	1	0.001
Soot	2	0.01
Tar	2	0.01
Tobacco	3	0.03
Wood dust	2	0.01
Zinc and Zinc compounds	2	0.01

Table 2 - Gas, vapor or haze substances

Substance	Category	MAC-Value mg/m ³	Scent Limit mg/m ³	Air Quality Guideline mg/m ³
Acetic acid	2	25	0.25	0.25
Acetic anhydride	2	20	-	0.2
Acetone	4	2400	1	70
Acetylene	4	-	-	-
Acrolein	2	0.25	0.05	0.003
Acrylonitrile	1	9	-	0.001
Ammonia	2	18	0.1	0.18
Benzene	1	30	3	0.005
Butane	4	1430	-	40
normal-Butanol	2	150	0.2	1.5
normal-Butyl acetate	2	710	0.03	0.2
Carbon monoxide	4	29	-	1
Carbon disulphide	2	60	0.05	0.05
Chlorine	2	3	0.06	0.03
Chloroform	1	120	30	0.12
Cyclohexane	2	1050	2	10
Cyclohexanone	2	200	0.02	0.03
1,2 Dichloroethane	1	200	17	0.2
Dichloromethane	1	350	4	0.35
Diethyl ether	2	1200	-	0.3
Epichlorohydrin	1	4	-	0.004
Ethane	4	-	-	-
Ethanol	4	1900	7	30
Ethyl acetate	2	1400	0.6	3
Ethylene oxide	2	90	-	0.9
Formaldehyde	2	1.5	0.07	0.015
Furfuryl alcohol	2	20	-	0.02
normal-Heptane	2	1600	-	16
normal-Hexane	2	360	-	3.6
Hydrazine	1 0	13	-	0.001
Hydrochloric acid	2	7	0.2	0.07
Hydrogen	4	-	-	-
Hydrogen fluoride	1	2	-	0.006
Hydrogen phosphide	2	0.4	0.1	0.004
Hydrogen sulphide	2	15	0.0001	0.001
Isobutyl acetate	2	700	0.6	0.3
Isopropyl alcohol	2	980	2	10
Methane	4	-	-	-
Methanol	2	260	4.2	6
Methyl acetate	2	610	0.002	0.005

Substance	Category	MAC-Value mg/m ³	Scent Limit mg/m ³	Air Quality Guideline mg/m ³
Methyl bromide	1	20	-	0.02
Methylene bis phenyl isocyanate (MDI)	2	0.2	-	0.002
Methyl ethyl ketone	2	590	0.7	5
Methyl formate	2	250	-	2.5
Methyl isobutyl ketone	2	410	0.4	0.5
Methyl methacrylate	2	410	0.2	0.1
alpha-Methylstyrene	2	480	0.04	0.03
Monochloroben zene	1	350	-	0.35
Naphthalene	2	50	0.004	0.01
Nitric oxide (NO)	2	30	-	0.05
nitrous oxide (N ₂ O)	2	4	0.1	
Ozone	2	0.2	0.015	0.002
normal-Pentane	2	360	-	3.6
Perchloroethyle	2	240	12	2.4
Ne Phenol	2	19	0.02	0.1
Phosgene	2	0.4	0.5	0.004
normal-Propyl acetate	2	840	-	8.4
Propylene oxide	2	240	-	2.4
Prussic acid	2	11	-	0.11
Pyridine	2	15	0.04	0.05
Styrene monomer	2	420	0.02	0.03
Sulphur dioxide	2	5	0.9	0.08
Sulphuric acid	2	1	-	0.01
Toluene	2	375	0.08	1
Toluene diisocyanate (TDI)	2	0.14	-	0.001
1,1,1-Trichloroethane	1	1080	-	1
1,1,2-Trichloroethane	2	45	-	0.045
Trichloroethylene	2	190	-	1.9
Vinyl chloride	1	8	-	0.008
Xylene	2	435	0.6	1

ANNEX 6 – MINUTES OF MEETINGS

Department of Environment

Held 10 July 2014 at 12:00

at Department of Environment

Present:	ADB	Jean Williams, Snr Environment Specialist David Ling, Transport Specialist
	DoE	Eleni Tokadruadua, Principal Environmental Officer Aminiasi Qareqare, Senior Environment Officer
	BICL	Ian Bone, TL
	ECL	Manisha Nandan

Item
1. Apologies for lack of notice from ADB. Meeting was for ADB to inform DoE about the Project and to gain an initial appreciation of how the environmental management administration in Fiji works. ADB gave a general introduction to the Project and the preparation phase.
2. JW has been through the legislation and advised that ADB's systems are similar in requirements to those of the DoE but there may be need for some additional safeguards, such as a grievance mechanism; also ADB's consultation requirements cover areas other than the environment and are likely to be more extensive.
3. Screening environmental assessments are required for all proposals presented to DoE. However, this can be a desktop exercise and does not need to involve community consultation. DoE must respond to the screening EA within 14 days and a fee of F\$128.50 is payable. ADB hoped that DoE might be able to turn the screening stage around more rapidly for the sample sub-project in view of ADB's constrained project processing schedule.
4. ADB (JW) hoped to meet DoE on Monday next to discuss the sub-project proposals further. IB advised that the TOR and Screening Assessment should be ready for presentation to DoE at that meeting.
5. All DoE consultants have to be approved. ECL is approved and BICL advised that Cushla Loomb is approved. DoE appeared happy that ECL was involved.
6. DoE works with FRA's technical team on the EA requirements of their projects – up to now these are handled by MWH on behalf of FRA, including provision of monthly monitoring reports.
7. For the sector project, DoE will need to understand the implementation of the project on an annual and quarterly basis for monitoring purposes. There are no charges for DoE monitoring other than the payment for lodgement of the EIA, which is up to F\$500 for a project > \$10 million. However, developers do sometimes assist with incidental expenses such as travel cost.
8. DoE has a small staff resource – only 2 technical officers and 1 technical assistant are available in Head Office for review of EIAs. Divisional offices in Labasa and Lautoka can

provide some additional support.
9. All EIAs must be submitted in 5 hard copies for circulation to Government agencies and 1 CD copy
10. EIAs must be either approved by DoE or rejected within 35 days after lodgement. Approvals will be issued with conditions. The EIA is regarded as the trigger for developments to proceed. Public disclosure of major developments is at the discretion of the Director DoE.
11. Sector agencies are beginning to depend on the EIA as a gateway for approval of projects, but this should not be the case as each has its own approval requirements as well.
12. A committee would be set up with FRA, Consultants, and DoE for monitoring of large projects. Provided the monthly reports are coming through on time and are fulfilling their requirements, DoE will not see a need to intervene; reserve their intervention for when things go wrong. Smaller projects do not warrant a monitoring committee.
13. When landowners raise concerns with DoE about conditions not being met, then DoE will if necessary issue a prohibition notice after verification. <i>[this is the grievance mechanism]</i>
14. Consultation – should DoE be present at consultation with landowners? e.g. at any public meeting that may be called? DoE advised that attendance at public meetings can be disappointing and proponents sometimes turn to DoE to call such meetings in the expectation that this will give a better turnout
15. ADB again stressed the amount of consultation that the full project would produce with a large number of sub-projects – DoE said volume was not a problem to them as they decide what meetings to attend or not, depending on importance. DoE role is generally to step in as the regulator if things seem to be going off course, not attending each and every meeting

Minuted by: Ian Bone

Ministry of Lands and Mineral Resources

Held 9 July 2014 at 15:00

at Ministry of Lands & Mineral Resources

Present:	ADB	Jean Williams, Snr Environment Specialist David Ling, Transport Specialist
	World Bank	Ross Butler, Snr Social Development Specialist Julie Babinard, Snr Transport Specialist
	William Singh BICL	Acting Asst Director Lands Ian Bone, TL

Item
1. Apologies for lack of notice from ADB/WB. Meeting was for ADB/World Bank to inform ILTB about the Project and to gain an initial appreciation of how the Land tenure system in Fiji works. ADB gave a general introduction to the Project and the preparation phase.
2. Lands Dept is responsible for the registration of titles and transfers for freehold land, for land acquisition by the Government from iTaukei and for leases of iTaukei land. Land under public works is held by the State.
3. For iTaukei land it can be difficult to track down the owners as 60% do not live in the village.
4. All iTaukei land is mapped with defined boundaries of the ownership groups, with the exceptions of the areas of Namosi and Serua (inland NW of Suva)
5. FRA has the power to acquire land under its decree; Lands also has powers to acquire for infrastructure projects. There is a "grey area" of legal inconsistency.
6. When acquiring land for a road, a maximum 20m corridor will be taken. Fair market value is paid; the process is similar to that in Australian/NZ law. FRA has its own land valuers, two of which are embedded in Lands Dept; the Lands and FRA valuers work closely together.
7. FRA as the construction agency is responsible for arranging the cadastral survey work. The road corridor is surveyed before acquisition and 75% of the market value is paid at the time of acquisition, with the residual 25% paid either when an "as-built" survey is completed, or 2 years following acquisition whichever is the earlier. This 75%/25% split was introduced some 10-15 years ago. There is a backlog of the "as built" surveys stretching back to the 1970s, and there are some roads for which there has not been a "before" survey. A caveat noting the acquisition is placed on the land title once the 75% is paid.
8. The amount paid is based on the land actually used for the works (roads, bridges, jetties etc). If the "after" survey shows the land area used to be less than originally estimated, then the difference in market value is taken up by an adjustment in the 25% payment. If more land is used, then the 25% is increased by the additional market value. In some cases these are pockets of land that are not of use to either the landowner or FRA, and this is acquired by the State and used for whatever purpose is available (bus bays, landscaping, etc)

<p>9. Leases of land are left to the line ministry to arrange, while land acquisition is done by Lands. So, for example, if some land needs to be leased for temporary use by FRA (such as a temporary waterway crossing during construction), then FRA would organise this with the landowner.</p>
<p>10. Lands normally requires 6 months to 1 year notice of land to be acquired. FRA will provide a schedule of upcoming land acquisitions, so these are available at the start of the calendar year. On January 2nd, Lands issues Notices of Intention to Acquire. The Act requires a minimum of 30 days' notice but in practice much longer notice is given. The boundaries of the land to be acquired are staked out on the ground, and a record is made of the buildings, uses, crops and trees on the land at the time of staking. Normally, the time between notice and acquisition is sufficient for annual crops to be harvested in which case no compensation for crops is paid. There are schedules of compensation for crops and for trees (fruit bearing and otherwise); these schedules are the responsibility of the Department of Agriculture [<i>and Forestry ?</i>] but are very out-of-date (10 years old). For leases, the ITLB will determine a market rental. Government is not supposed to pay above the scheduled compensation rates.</p>
<p>11. Lands is proud of its record that only in a handful of cases in 40 years has land been acquired without the agreement of the owners. Lands' aim is to negotiate an acceptable settlement with landowners taking their interests into account and if there is a good reason why the owner will be disadvantaged, Lands will try and get a change made to the project to resolve the matter amicably. This could involve moving the road alignment for example.</p>
<p>12. The iTaukei system was explained further: the basic unit is the Tokatoka, which is a family group, 2 or 3 tokatoka make up a Mataqali (which is a kinship group) and a number of mataqali make up a Yavusa. Often the Yavusa is one village in size, but can extend to 3 or 4 villages.</p>
<p>13. To gain approval to an acquisition or lease, there must be signatures from a clear majority (51%) of the registered owners. Lands aims to get 60% to avoid later disputes. It can be challenging to track down registered owners who may be living elsewhere in Fiji or overseas.</p>
<p>14. For coastal structures, such as jetties, compensation is for loss of fishing grounds (not for water area as all land below the high water mark is State owned). For reclamation, such as causeways, there is permanent loss and compensation is paid. For open structures, there is no compensation paid as it is assumed that the fish will temporarily move out of the area of construction but will move back under the jetty once construction is complete. Fishing rights are registered with the Fisheries Commission.</p>
<p>15. Gravel in river beds is the property of the State. Lands and Mineral Resources issue licences for gravel extraction. However access to win the gravel is across owned land so there is a case for lease payments for this access to the landowner. The State charges a royalty to the agency using the river/beach sand/gravel at 50 cents/m³ to the State and 50 cents/m³ to the fishing rights owner, \$1/m³ in total</p>
<p>16. Loss in water quality in a river due to gravel extraction is not compensated for because it is assumed that the environmental conditions will be sufficient to mitigate adverse effects (e.g. by screening). If the effects cannot be mitigated, then it is assumed DoE will not give permission.</p>

<p>17. There is Land and Water Resources Management Department. However there is no system of water rights in Fiji and no payment is required for water extraction – water is still regarded as a free resource for all.</p>
<p>18. Lands does not become involved directly in the consultation process. Consultation will involve the provincial council and one of the four district commissioners 9 several provinces make up a district</p>
<p>19. Certificates of Title to land are obtainable at the Titles Office, as are Instruments of Tenancies for leases which are registered as deeds. The acquisition process leads to a dedication document, a “certificate of transfer of native land”.</p>

Minuted by: Ian Bone

iTaukei Land Trust Board

Held 8 July 2014 at 1700

at ILTB Office, 431 Victoria Parade, Suva

Present:	ADB	Jean Williams, Snr Environment Specialist
	World Bank	David Ling, Transport Specialist
		Ross Butler, Snr Social Development Specialist
	iTaukei LTB	Julie Babinard, Snr Transport Specialist
	BICL	Alipate Qetaki, General Manager
	ECL	Ian Bone
		Manisha Nandan

Item

1. Apologies for lack of notice from ADB/WB. Meeting was for ADB/World Bank to inform ILTB about the Project and to gain an initial appreciation of how the iTaukei land holding system in Fiji works. ADB gave a general introduction to the Project and the preparation phase.
2. AQ explained the operations of ILTB: ILTB acts as trustee for indigenous land. Customary land can only be sold to the State. Land is classified as reserve (for iTaukei use) or outside-of-reserve land (which can be leased). Land can be moved between the two classifications. If Government wants to use iTaukei land, it has to be de-reserved.
3. Rural housing in villages is reserve land; Housing Authority land is outside-of-reserve land.
4. ILTB negotiates leases on behalf of the owners. Leases require majority consent (51%) under the Act, but ILTB policy (for 5 years) is to obtain 60% of the registered landowners as signatories before approving any lease. ILTB maintains a register of owners; all new born are added to the register, and deaths are removed (but can be delays in recording these).
5. State has powers of compulsory acquisition of land, with fair compensation paid using international market valuation principles. Disputes about land value are resolved through commercial arbitration. Government must acquire the land if it is required for a public purpose. Maximum lengths of leases is 99 years. The leasing system was introduced to (i) provide opportunities for growth and development (ii) protect land ownership and (iii) provide land for indentured Indian labour brought to Fiji to work the cane plantations in colonial times.
6. Receipts from leases are distributed in equal shares to all registered owners of a piece of land.
7. Other related legislation is the Taukei (Fijian Affairs) Act, the Taukei Affairs Act, the Taukei Land Act. The Ministry of iTaukei Affairs deals with policy under the Commissioner for iTaukei Land
8. Customary land boundaries are agreed by common knowledge and are not surveyed. It takes about 1 day to identify the owning group for a particular piece of land.
9. Land below the high water mark and in the beds of rivers is Government land, from British Common Law.
10. ILTB is funded from 10% of the proceeds from leases and sales to the state (down from 15% called *poundage*).

11. ILTB should be the first to be approached when there is a need to consult landowners on customary land. Do not go directly to the land occupiers as it will be difficult to tell who is/is not a registered owner and who can speak for the land owning group. Many agencies do not do this and it causes problems later.

Minuted by: Ian Bone

Annex 7: Chance Find Procedure

1. PCR Definition

Movable or immovable objects, sites, structures or groups of structures having archeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance.

2. Ownership

All cultural property found in terrestrial and / or underwater archaeological sites belong to the Government of Fiji.

3. Recognition

In areas known to have historical or archeological value, it is required the contractor to be accompanied by a specialist

4. Procedure upon Discovery

Suspension of Work

When the presence of any cultural or historical property is discovered, the contractor must immediately report the discovery to the Resident Engineer or Supervisor and the FRA. The appropriate cultural agency in Fiji shall immediately be contacted and informed of the chance find i.e the Department of National Heritage Culture and Arts. The contractor will suspend all activities that will affect the site and shall immediately notify the agency concerned. The local government unit having jurisdiction where the discovery was made shall promptly adopt measures to protect and safeguard the integrity of the cultural property so discovered and within five (5) days from the discovery shall report the same to the appropriate agency. The suspension of these activities shall be lifted only upon the written authority of the FRA and only after the systematic recovery of the archaeological materials. **However, it should specify whether all works should be stopped, or only the works immediately involved in the discovery, or, in some cases where the large buried structures may be expected, all works may be stopped within a specified distance (for example, 50 meters) of the discovery. This issue should be informed by a qualified archeologist.**

After stopping work,

The contractor may not be entitled to claim compensation for work suspension during this period.

The Resident Engineer may be entitled to suspend work and request from the contractor some excavations at the contractor's expense if he thinks that a discovery was made and not reported.

Demarcation of the Discovery Site

With the approval of the Resident Engineer, the contractor is then required to temporarily demarcate, and limit access, to the site.

Non-Suspension of Work

The procedure may empower the Resident Engineer to decide whether the PCR can be removed and for the work to continue, for example in cases where the find is one coin.

Chance Find Report

The contractor should then, at the request of the Resident Engineer, and within a specified time period, make a Chance Find Report, recording the following:

- Date and time of Discovery;
- Location of the Discovery;
- Description of the PCR, with photos if possible;
- Estimated weight and dimensions of the PCR;
- Temporary protection implemented.

The Chance Find Report should be submitted to the Resident Engineer, and other concerned parties as agreed with the cultural authority.

The Resident Engineer, or other party as agreed, is required to inform the cultural authority accordingly.

Responsible Authority in Fiji:

Department of National Heritage Culture and Arts

Level 4, Takayawa Building

6 Augustus Street,

Toorak

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