

Vanuatu Infrastructure Reconstruction and Improvement Project (VIRIP)

Environment and Social Management Framework

**Ministry of Infrastructure and Public Utilities
Government of Vanuatu**

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Environment and Social Management Framework

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1 Introduction

This Environment and Social Monitoring Framework (ESMF) sets out the principles, policies and procedures for environmental and social protection that the Government of Vanuatu (GoV) and the World Bank (Bank) agree to employ in the context of the Vanuatu Infrastructure Reconstruction and Improvement Project (VIRIP) (World Bank P156505).

The ESMF outlines the project, its components, the socio-cultural context, possible environmental and social impacts, and their management. The document meets the requirements of the relevant World Bank Operational Policies and laws of Vanuatu to describe the procedural responses to identifying and managing impacts throughout the project.

A draft version was disclosed in Vanuatu and was the subject of consultation in Port Vila during the week of 4th – 8th April 2016. This document is **Version 2**, including updates from consultation and changes to project design. The final version will form part of the legal agreements between GoV and the World Bank. It will be officially disclosed by both partners for consultation and comment, and may be amended as agreed between the partners.

2 Project Description

2.1 Background

Between March 12 and 14, 2015, Tropical Cyclone Pam (TC Pam) struck 22 islands of Vanuatu as an extremely destructive category 5 cyclone. The total economic damage and losses as a result of the cyclone were estimated to be approximately US\$450 million, which equates to approximately 64 percent of the country's GDP¹.

The impact of TC Pam on Vanuatu included severe and widespread damage, which was worst in Shefa and Tafea provinces, in particular on the larger islands of Tanna, Erromango and Efate and the smaller Shepard islands. Eleven fatalities were recorded in Tafea and Shefa province. As many as 65,000 people were displaced from their homes, around 17,000 buildings were damaged or destroyed, and the livelihoods of at least 80 percent of Vanuatu's rural population was compromised due to large scale destruction of crops.²

In the wake of TC Pam, the Government of Vanuatu (GoV) officially declared a state of emergency for Shefa Province on March 15, 2015. Emergency response efforts were led by the government with the support of multiple humanitarian partners, international and national non-governmental organizations, international governments, donors and other partners. In order to gain an understanding of the scale of TC Pam's economic impact and assist in mobilizing the resources needed for recovery and reconstruction, GoV undertook a Post-Disaster Needs Assessment (PDNA) with the support of the World Bank and other development partners, which formed the basis of the National Recovery and Economic Strengthening Program (NRESP) that provides a framework to guide the recovery and reconstruction of all sectors affected by TC Pam. The estimated total recovery and reconstruction costs have been calculated as US\$316 million².

Vanuatu is expected to incur, on average, US\$48 million per year in losses due to earthquakes and tropical cyclones. In the next 50 years, Vanuatu has a 50 percent chance of experiencing another loss exceeding US\$330 million, and a 10 percent chance of experiencing a loss exceeding US\$540 million.³ This has far reaching implications for a range of sectors, including, housing, tourism, infrastructure, agriculture and commerce. Disaster events, such as TC Pam, have the potential to affect the entire economy, human and physical capital, and impact the long-term development of the country. Accordingly, extreme weather events, exacerbated by projected changes in climate, are increasingly recognized as a core development challenge for the country.

VIRIP will provide financial support to GoV through numerous targeted investments in small land transport structures, and to reconstruct schools and public buildings damaged by TC Pam. Not only will these investments provide for more reliable access to critical social services, markets, and facilities for remote and isolated rural communities, they will also inject much needed funding at the local level through Island-based contractors (IBCs), create possible business opportunities for

¹ Vanuatu Post Disaster Needs Assessment, Tropical Cyclone Pam, March 2015 (GoV).

² Vanuatu Post Disaster Needs Assessment, Tropical Cyclone Pam, March 2015 (GoV).

³ PCRAFI Risk Profile, 2011.

members of those communities in the future maintenance of those assets, and provide skills training.

2.2 Project Development Objectives and Components

The project development objective (PDO) is to reconstruct and/or improve the disaster and climate resilience of selected public sector assets in provinces impacted by TC Pam and, in the event of an eligible crisis or emergency, to provide immediate and effective response in such eligible crisis or emergency.

The executing agency will be the Ministry of Finance and Economic Management (MoFEM), and the Ministry of Infrastructure and Public Utilities (MIPU) will be the implementing agency. A Project Support Team (PST) will be established within MIPU to ensure the project is implemented in accordance with Bank policies and procedures.

2.3 Overview of the Project Components and Safeguards Instruments

The project will reconstruct assets damaged by TC Pam, including land transport structures, schools and public buildings, and improve their resilience to disasters and extreme weather events. VIRIP will also finance technical assistance activities to design and supervise works, train and build capacity of public sector officials and private sector, and support implementation. To facilitate response during disaster events, a zero dollar Contingency Emergency Response component is included.

Component 1: Road Reconstruction and Improvement

This component would fund a range of roads works in provinces of Vanuatu that were affected by TC Pam to undertake spot improvements to land transport sector assets, such as small road structures and footpaths, and to improve the resilience of land transport sector assets. In addition, land transport assets that were not impacted by TC Pam can be built to more resilient standards to better withstand future extreme weather events.

Sub-Component 1.1: Improvement of Road Sector Assets

With few exceptions, rural roads in Vanuatu are generally in poor condition and are not passable throughout the year. Few, if any, rural roads are engineered, and most are little more than tracks without gravel. Coastal roads are prone to flooding, bogging and storm surge, while inland roads have steep gradients with minimal or no drainage. All roads are vulnerable to landslips due to unstable soils. This sub-component would fund spot improvements to existing roads, and in some remote locations, walking tracks, on several islands to repair cyclone damage and improve year-round accessibility to and for rural communities.

- a) Cyclone Damage. Although cyclone damage to roads was generally limited to washing out of bridge approaches and culverts due to excessive rainfall, there were also instances of severe, localized damage to exposed coastal roads and embankments from storm surges. Works would fund embankment repairs and strengthening seawalls in the form of rockfill revetments and masonry or gabion retaining walls.
- b) Rural Access Improvements. The types of road sector assets to be improved would typically be small structures in the form of drainage structures, including drifts and/or vented drifts on water crossings, pipe culverts, lined drains, or low-maintenance

surfacing on steep grades in the form of concrete pavements or concrete “tire paths.” Funding would also be used for embankments across low-lying floodplains. In remote areas with no roads, walking tracks would be improved at critical locations with concrete steps or surfacing on steep grades and simple bridges over water crossings.

It is expected that land transport asset spot improvements would be implemented using two modalities:

Island-Based Contracting for Small Works. The Ministry of Infrastructure and Public Utilities (MIPU) is currently implementing the second phase of its Roads for Development (R4D) program, which is funded by the Australian Government and support island-based contractors (IBCs) with limited plant and resources to carry out small, low maintenance, reinforced concrete and masonry works on rural roads on four islands. There are between seven and ten IBCs on each island. Works carried out by the IBCs are generally closed or vented drifts at water crossings, pipe culverts with inlet and outlet structures, and surfacing over full or partial road width with lined side drains on steep gradients, all based on standard designs. R4D contracts are awarded in six-monthly rounds, or “cycles,” and are all less than VT 5 million (approximately US\$50,000).

Under VIRIP, a modality that closely mirrors the R4D model, but integrated into the local Public Works Department (PWD) structure, would be implemented on six or more islands in the four cyclone-affected provinces of Malampa, Penama, Shefa and Tafea. MIPU would select the islands where works would be carried out and employ existing IBCs trained under R4D on islands where the program is established. MIPU would also expand the framework to other islands, and include walking track improvements in remote areas. Prioritization of interventions will be based on a ranking process⁴ using agreed transparent criteria involving rural access indicators (RAI) and levels-of-service for potential improvements, and draw from PWD Divisional Annual Work Plans prepared by PWD’s six provisional offices.

National Competitive Bidding for Larger Works. Cyclone damage repair of coastal road embankments would require large plant to transport and place rock revetments and other types of strengthening and resilience-enhancement measures. Similarly, drifts across larger water crossings and rock embankments across low-lying flood plains would be more suited to mechanised construction methods. Prioritization of interventions would be based on PWD Divisional Annual Work Plans using the same criteria as that for IBCs carrying out smaller works. Larger works would be packaged to make them attractive to national contractors.

Sub-Component 1.2: Design and Supervision

Funds would be utilized to design and supervise works to be carried out under Component 1 by contracting one firm to design and supervise all road sector improvements.

Component 2: School Reconstruction and Improvement

MoET has assessed the extent of damage from TC Pam to more than 70 primary and secondary schools in Tafea province, and estimated repair costs. Schools on Tanna Island received massive

⁴ PWD recently introduced a Road Prioritization Tool for its 2016 budget planning.

damage, mostly in the form of full or partial roof loss, but several buildings were completely demolished. The extent of damage to schools was directly correlated to the quality of construction, with well-constructed buildings that used quality materials and workmanship generally withstanding the impact of TC Pam. Many schools served as community shelters during the cyclone, and evacuation centres for weeks thereafter for families whose homes had been destroyed. The failure of some buildings being used as shelters had deeply traumatic, and in one case fatal, consequences.

Sub-Component 2.1

This sub-component would reconstruct classrooms and other school buildings damaged by TC Pam, and ensure that at least one building per school is designed and constructed to withstand a category 5 cyclone and appropriate seismic loading so that it can be used as an evacuation centre. Improved water supply and sanitation facilities would be included, as well as a basic protected kitchen/cooking area for use by evacuees.

This sub-component would reconstruct classrooms and other school buildings damaged by TC Pam, and ensure that at least one building per school is located, designed and constructed to cyclone seismic resilient standards appropriate to the location and outside of tsunami and storm-surge inundation areas so that it can be used as an evacuation centre. Improved water supply and sanitation facilities and other amenities would also be built to enable one school structure to serve as an evacuation center.

Measures to strengthen the resilience of or build-back-better schools that were not impacted by TC Pam are also eligible for funding under the project.

The reconstruction of school buildings would be based on MoET standard designs, and would maximise community involvement. All “evacuation center” certified buildings will be constructed using concrete blockwork/reinforced concrete sub-structures, and structural grade timber for roof structures. Ancillary buildings may be constructed with other materials, provided they meet relevant design standards and MoET performance and maintenance objectives. On islands with active volcanic activity, such as Tanna, cyclone strapping should be stainless steel and any bolts used should be hot dip galvanised to reduce corrosion in the aggressive atmosphere.

The types of treatment are expected to be as follows:

New Structures. These might be classrooms, offices or staff housing that would be constructed from scratch. Existing buildings and structures would either be replaced or demolished, in order to meet MoET requirements for facilities.

Partial Reconstruction. Buildings that were partly destroyed, typically above the ring beam level, but which are assessed as structurally sound, would be reconstructed to an agreed cyclone-resilient design standard.

Retrofitting. Many buildings that were not seriously damaged urgently require retrofitting to replace roof sheeting or steel tie downs that are corroded, and roof timbers that are cracked or rotten. In addition, roof nails should be replaced with cyclone screws.

Water Supply and Sanitation. Rainwater harvesting from roofs of reconstructed buildings will be maximized through collection and storage to facilitate an appropriate level of gender-separate toilet and hand washing facilities at reconstructed schools.

To expedite the reconstruction process it is anticipated that works would be conventionally contracted. However, contractors would be required to maximize opportunities to improve the skills of local builders, and create employment opportunities for the communities at each school.

Sub-Component 2.2: Design and Supervision

Funds would be utilized to design and supervise works to be carried out under Component 2. It is expected that one firm would be contracted to design and supervise improvements to both schools and public buildings.

Component 3: Public Building Reconstruction & Improvement

Several public buildings, provincial and national government offices, workshop and associated buildings on TC Pam-affected islands suffered serious damage with partial or total destruction of individual structures or groups of buildings.

Sub-Component 3.1: Public Buildings

This sub-component would fund the reconstruction of public buildings that were impacted by TC Pam, as well as to strengthen the resilience of selected public buildings that were not damaged by the Cyclone, through a prioritization and selection process to be developed by MIPU, agreed with the Bank, and endorsed by RPC. Damage to public buildings was similar to that of schools, with roofs and steel frames fully or partially destroyed, and roof timbers missing.

Sub-Component 3.2: Design & Supervision.

Funds would be utilized to design and supervise works to be carried out under Component 3. As indicated above, it is expected that one firm would be contracted to design and supervise improvements to both schools and public buildings.

Component 4: Project Implementation and Technical Support

Component 4.1: Project Implementation Support

VIRIP funds would also be used to hire individual specialists to support project implementation. A Project Support Team (PST) would be established within MIPU to assist in managing VIRIP, and ensure that the Bank's fiduciary, safeguards and reporting requirements, including monitoring and evaluation, are met throughout the implementation period. Key staff will include a qualified project manager, a procurement specialist, a project accountant and safeguards specialist. In addition, it is anticipated that inputs from technical specialists, such as communication/community liaison, monitoring and evaluation specialists, or sectoral specialists, will be required from time-to-time. The services of a Finance Advisor to help set-up the financial management system for the project and provide periodic guidance to the project accountant may also be required. While other design and supervision consultants will be responsible for providing key technical inputs for bidding and evaluation processes (see sub-component 2.1), PST staff will be responsible for finalizing bid

documents prior to inviting bids. MIPU will be responsible for finalizing the evaluation and award process, in liaison with the Tenders Board.

Operating costs, including for office refurbishment/renovation, rent, power, communications, and vehicle maintenance for PST and provincial PWDs, will also be financed under VIRIP, as will annual project audits.

Component 4.2 Sustainable Maintenance

The rural road network of Vanuatu, which is in excess of 2,100 km, has suffered from chronic lack of preventative and periodic maintenance due to lack of available funding, which has resulted in the majority of the network remaining unmaintained and in very poor condition. There is a clear and urgent need to address this problem, not only to improve the condition of the network, and therefore accessibility for rural populations of Vanuatu, but also to protect and sustain investments that the government and donors make on improving road assets. VIRIP funding would be utilized to engage individual consultants to advance two existing initiatives to develop a more sustainable road maintenance regime.

Component 4.3 Training and Capacity Building

Improvements to land transport sector assets would seek to expand the use of IBCs already identified, established and trained under the R4D program. It is expected that up to twenty new contractors would need to be engaged, as well as ten new site inspectors. This sub-component would fund the costs of specialist training in labor-based road construction and maintenance, and building construction, possibly in partnership with the International Labor Organization (ILO), to continue the process already established under R4D. This process involves working through the local communities, or nakamals, to advertise for interested parties, the selection of individuals, and classroom and on-the-job training.

Funding would also be used to provide refresher training for existing IBCs and site inspectors on islands targeted for inclusion in this project, and specific training on construction costing and bidding.

Training and capacity building in the education sector is expected to be partially delivered through a “managing contractor” arrangement under sub-component 2.2. Training courses implemented in conjunction with the reconstruction program would be used to up-skill the local construction workforce and reinforce the importance of strong connections to ensure strong buildings. An accelerated program for “training of trainers” could be considered to assist experienced Ni-Vanuatu trades to train and manage teams of local workers. Quality control of materials used in the reconstruction program could be ensured through a centralized procurement process.

Funds would be used to develop a training and capacity building program on school infrastructure management. Because decision-making processes and the allocation of school funds lie directly with schools, efforts would focus on training school councils, principals and teachers about the benefits of regular preventative maintenance of schools and associated buildings. Improved maintenance of existing structures would help to protect the existing building stock and reduce its vulnerability to natural hazards. Developing maintenance manuals, complemented with training programs, would reinforce the importance of regular maintenance.

Component 5: Contingency Emergency Response

This zero-cost component would support preparedness and rapid response to eligible disasters, emergencies, and/or catastrophic events, if needed. Following the declaration of a disaster or state of emergency, it allows for reallocation of credit and grant proceeds from VIRIP components under streamlined procurement and disbursement procedures, or a mechanism to channel additional funds, should they become available, as a result of an emergency. This would be done through a Contingency Emergency Response Component (CERC), which will serve as a contingent window, and provide a mechanism: (i) for quick disbursements to meet the immediate liquidity needs of Vanuatu following a disaster event in order to finance critical imports; or (ii) to finance emergency repairs and reconstruction works and associated services of public infrastructure.

3 Legal Framework

3.1 Environmental Protection and Conservation Act (EPCA) and draft EIA Regulations 2011

Under the EPCA, the Department of Environmental Protection and Conservation (DEPC) requires an environmental permit for any activity that is likely to impact on the environment and any activity that requires any license, permit or approval under any law (e.g. a Quarry Permit or Foreshore Development Consent).

The process requires the completion and submission of an environmental permit application form to the DEPC, accompanied by plans, other supporting information, and a fee. Applications must include an identification of impacts and mitigation measures. The DEPC will review the application form, and, if necessary, undertake a Preliminary Environmental Assessment (PEA).

Three outcomes occur from the application process:

- For projects listed on the minor project schedule, an environmental permit will be issued without a PEA. The permit may or may not have conditions.
- For projects listed on the PEA schedule, or otherwise has potentially significant impacts, a PEA will be produced by the DEPC. As a result:
 - for projects with minor or readily mitigatable impacts, an environmental permit will be issued, with conditions; or
 - for projects likely to cause significant environmental, social and / or custom impacts an Environmental Impact Assessment (EIA) and accompanying Environmental Management and Monitoring Plan (EMMP) are required and will be assessed before an environmental permit is issued.

Potential sub-projects funded under this Project that may require a PEA include:

- Construction or alteration of coastal protection works.
- The disturbance of coastal or estuarine areas, including seagrasses, coral and sand. This includes the removal of sand, gravel, rock, coral and rubble and road works.
- Reconstruction of roads, culverts and bridges.
- Waste disposal facilities (burial of asbestos)
- Permanent health facilities and medical centres.
- Any quarrying, excavations and extractions.
- Any activity impacting a water source.

Minor projects funded under this project that may require an environmental permit, but no PEA, include:

- Repairs or alterations to existing coastal protection works (<10% change in size or scale)

4 World Bank Safeguard Requirements

World Bank safeguard policy requirements applicable to this project are summarized below⁵. Although gender concerns and citizen engagement are not safeguards requirements, all projects supported by the World Bank are screened and required to ensure that men and women benefit in equal ways from project investments, and that projects empowers citizens to participate in the development process and integrating their voice into development programs as key accelerators for achieving results.

4.1 Environmental Assessment (OP/BP 4.01)

This policy provides the requirements, and procedures, for the environmental assessment of the World Bank's lending operations. Inter alia, it requires (i) detailed qualitative and quantitative analysis to determine project impacts, (ii) determination of tangible measures to prevent, minimize, mitigate or compensate for these adverse impacts, (iii) public consultation and disclosure as part of the Environmental Assessment (EA)⁶ process and (iv) requires an ESMP to address set of mitigation, monitoring and institutional measures to be implemented during design, construction, operation of maintenance phases of the project.

For projects such as this, where not all of the environmental and social impacts are known at the time of preparation, an ESMF is prepared. ESMF provide a framework and instructions to apply OP/BP4.01 (and other safeguard policies) to projects as they are defined during project implementation.

4.2 Natural Habitats (OP4.04)

This policy requires the conservation of natural habitats and specifically prohibits the support of projects that involve significant conversion or degradation of critical natural habitats, as defined by the policy. The policy requires the EA to identify impacts on biodiversity and species and to determine endemism, endangered species and whether the project impacts on these species. If the EA determines that a project impacts or degrades natural habitat, the project must include mitigation and monitoring measures acceptable to the Bank.

The project selection checklists will screen for potential risks relating to this policy, and relevant mitigation measures are included in this document to avoid or mitigate adverse impacts on natural habitats, consistent with this policy.

4.3 Physical Cultural Resources (OP4.11)

This policy seeks to avoid the disturbance and or destruction of Physical Cultural Resources (PCR). PCR includes places of worship, sacred sites, buried artifacts, cemeteries and archeological assets, etc. The policy requires EA to undertake an exhaustive desk review and/or site investigation to pre-

⁵ The entire Operational Manual with details of all policies is available online at [Ext Opmanual - Operational Manual - World Bank](#)

⁶ Includes social assessment

identify and locate PCRs in the project influence area, propose management measures and include chance find clauses in civil works contracts during construction and maintenance stages.

The project selection checklists will screen for potential risks relating to this policy, and relevant mitigation measures are included in this document to avoid or mitigate adverse impacts on PCR, consistent with this policy.

4.4 Involuntary Resettlement (OP4.12)

The Involuntary Resettlement policy addresses direct economic and social impacts from project activities that may cause involuntary taking of land resulting in (i) relocation or loss of shelter, (ii) loss of assets or access to assets or (iii) loss of income sources or livelihoods. It also addresses the impacts from projects that lead to involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons.

Land will be required for the reconstruction of buildings and infrastructure. Because of the small scale nature of the infrastructure and that the local community (who are also the land owners) will be the direct beneficiaries of the investments, negotiated settlement is expected to occur in most, if not all, occasions. Should it be identified that additional land, for example for material sourcing etc. for the project and negotiated settlement is not successful, the requirements of this Resettlement Policy Framework (RPF) will be implemented. The Voluntary Land Donation Principles are provided in Annex K.

4.5 Gap Analysis

There are few gaps between the EPCA process and the requirements of OP4.01 Environmental Assessment. Mitigation requirements are the same under the environmental permit process and the ESMF. There are some gaps in the regulations regarding the types of activities that may require an environmental permit. For example, school buildings and public buildings are not specifically listed. In any case, all such activities will have an environmental permit application form completed so they will be assessed under the EPCA.

The processes will be harmonized as much as possible, so that the requirements of Vanuatu and the World Bank will be met with any safeguard instrument that is prepared.

5 Anticipated Environmental and Social Issues and Mitigation Measures

The potential environmental issues are relative to the proposed project technologies and the sensitivity of the environment at those locations. The following tables highlight the potential significant impacts from the anticipated sub-projects.

5.1 Improvement of Road Sector Assets (PWD)

Component 1 is the improvement of land transport assets and footpaths, such as small structures in the form of drainage structures, including drifts and/or vented drifts on water crossings, pipe culverts, lined drains, or low-maintenance surfacing on steep grades in the form of concrete pavements or concrete “tire paths,” river embankment strengthening, and coastal protection works. Walking tracks would be improved at critical locations with concrete steps or surfacing on steep grades and simple pedestrian bridges over water crossings. Some public roads that provide critical connections across or around islands may be upgraded to increase the resilience of the infrastructure.

Works may be carried out by national or international private sector contractors or by Island-based contractors (commercial entities, but with limited equipment and skill sets).

Activity	Significant Potential Impacts	Key Mitigation Measures	Safeguard Tools
Design of coastal protection measures, river crossings, coastal protection works.	Climate change impacts are not considered: asset-life is reduced, further damage to land or buildings (or life) occurs from extreme weather events. Natural habitats are affected by changes to river flow, wave energy or other natural processes as a result of the design. Increased scour, erosion or flooding / overtopping as a result of poor design.	Design to take into account probable climate change scenarios: sea level rise, extreme high tides, storm surges, coastal flooding, cyclones, heavy rainfall events and more temperature extremes. Undertake baseline survey of site bathymetry, topography, geology and natural habitats to inform design. Natural systems (mangroves, wetlands, riparian planting) are incorporated into design where possible. Impact assessment of design to address residual risks to erosion, overtopping, flooding and how these should be mitigated.	ESMP (Template in Annex H)

Source of sand and gravel for resurfacing and renovating unsealed roads or creating concrete or sand bag structures.	Uncontrolled sand and gravel mining leading to coastal erosion Clearance of vegetation, nesting areas, feeding areas for wildlife. Disputes over access to land or access to resources. Occupational health and safety of quarrying / mining.	Reuse crushed concrete. Procure sand and gravel in 'bulk' from licensed quarries. If licensed quarries are not available and it is not feasible to transport aggregate from other areas: • Identify borrow pits / excavations that could be used for small sources. • Avoid beach mining in areas where erosion or inundation could be exacerbated. • Undertake a screening assessment to identify potential environmental and social risks, and submit an environmental license application form to the DEPC. • Apply to Dept of Geology and Mines for an 'Occasional Permit'. • Obtain licenses and permits from Dept. of Geology and Mines, and DEPC prior to operation. • Negotiate access to resources, including a fair price, from rightful resource owners. • Ensure occupational health and safety procedures, training and equipment for all operations.	ESMP (Template in Annex H)
Route / structure realignment or renovation / replacement within an existing footprint.	Involuntary land acquisition.	Avoid realignment or new locations for structures where possible. Use participatory processes with communities/communal land owners to identify suitable alignments / locations. Consult and obtain voluntary land donation or lease for all works. For involuntary land acquisition, refer to the RPF.	Voluntary Land Donation Principles VLD and Land Lease Form Resettlement Policy Framework
	Removal of structures (fences, animal pens) income-generating assets such as trees or crops.	Consultation with owners and compensation for lost asset or income at replacement cost.	
	Damage to physical cultural resources, including graves.	Survey the site and consult with land owners / communities prior to finalizing design. Realign to avoid PCR or otherwise move or protect PCR as required by land owners, community and GoV.	Project screening checklist (Annex 0). Chance find procedure

		Follow chance find procedure.	(Annex I).
	Damage to rare vegetation or habitats such as nesting areas, feeding areas for wildlife, coastal habitats.	Survey the site and consult with land owners prior to finalizing design. Realign to avoid critical natural habitats and otherwise mitigate through replanting. Ensure ESMP contains measures to protect coastal dunes, foreshore, mangroves or other habitats.	Project screening checklist (Annex 0). ESMP
Earthworks creating stockpiles of sediment.	Discharges of sediment to water ways or coastal areas.	Avoid dumping of sediment into water ways or coastal areas. Stockpile excess sediment at least 20m from water ways and high tide, for reuse by locals. Spread and stabilize (by planting) excess sediment to avoid erosion.	ESMP
Drainage to improve run off.	Discharges of excessive water causing erosion and sedimentation of water ways.	Consider the impacts at the discharge location (scour, erosion, sedimentation) during design. Design culverts and pipes to appropriate sizes to avoid back-flooding or overtopping in foreseeable weather events. Line drainage with concrete or rocks where necessary to reduce sediment discharges.	ESMP
Working with concrete.	Discharges of wet cement into waterways / coastal areas killing wildlife.	Avoid discharge of wet concrete or cement powder into water ways or coastal areas. Repurpose left over wet concrete for other uses. Pour left over wet concrete onto the ground to harden. Dispose of hardened concrete.	ESMP
Working in or near water ways and coastal areas.	Discharges of sediment and disturbances to seabed and river bed habitats.	Avoid working in wet areas where possible. Keep all machinery out of wet areas and sensitive beach or river bed areas. Screen for sensitive habitats and avoid working in those locations (shellfish beds,	Project screening checklist (Annex 0). ESMP

		seagrasses, mangroves, etc.). Divert waterways around working areas and work at low flow / low tide. Capture sediments using turbidity curtains or sediment traps. Restore habitats (such as gravel river beds, vegetated river embankments, foreshore environments) once work is complete.	
Use of oil, petrol, diesel and chemicals.	Discharges of waste oil or hazardous spills into ground or waterways killing wildlife.	Safe storage of hazardous materials. Contain waste oil for recycling. Refuel machinery at least 20m from waterways and coastal areas. Dispose of all containers and waste materials at an approved landfill.	ESMP
Noise and vibration from heavy machinery.	Nuisances to households, health centres and schools.	Limit operating hours for heavy equipment to 600 to 1800, Monday to Friday. Warn communities of noisy or vibrating work.	ESMP
Use of local labor and 'imported' labor (from other islands or countries).	Exploited for cheap labor. Gender inequity. Unsafe work practices. Imported work force disrupting disruption to traditional / island lifestyles	Consult with the land owners and broader community about income and employment opportunities and get broad support for labor schemes such as Island-based Contractors or casual employment of labor, for working hours/days and for equal opportunity for training and employment. Employment should be consistent with Vanuatu labor laws and no children (under 16 years old) shall be employed. Women and men shall have equal opportunity for training, employment and income. Provide suitable training to locals to do the work safely and provide all relevant safety equipment. Where teams of imported labor will be present: Provide worker training in HIV / AIDs and cultural awareness. Inform communities of potential issues prior to construction. Ensure adequate accommodation and services are provided for the	ESMP World Bank Group EHS Guidelines.

		duration of the work.	
Technical advisory.	Outputs that are contrary to good environmental management and community well-being, and contrary to donor safeguard policies or the laws of the GoV.	Requirement for consultants to consider environmental and social impacts and aspects as part of the advisory service.	Terms of Reference for Technical Advisory

5.1 Reconstruction of Schools (MoET) and Public Buildings (MIPU)

Under Component 2 the project would reconstruct schools and associated buildings (classrooms, offices, staff housing) damaged by TC Pam, and ensure that at least one building is designed and constructed to withstand a category 5 cyclone so that it can be used as an evacuation center. Improved water supply and sanitation facilities may be included, as well as a basic protected kitchen /cooking area for use by evacuees. Under Component 3, public buildings, such as health facilities, provincial and national government offices, workshops and associated buildings on TC Pam-affected islands could be reconstructed.

Activity	Significant Potential Impacts	Key Mitigation Measures	Safeguard Tools
Design of water supply and sanitation.	Reduction of water resource for other users. Inadequate treatment and disposal of wastewater, leading to health impacts and water pollution. Inadequate access for disabled / elderly and inadequate privacy and safety for women and girls.	Consult and get agreement from land owners at the source of water, and along any pipeline alignment. Design wastewater / sewage treatment and disposal according to national and international design standards for the ground conditions and the anticipated peak loads. Design to ensure all people can access facilities safely and securely. Provide gender-segregated facilities.	ESMP
Source of sand and gravel for resurfacing and creating concrete foundations	Uncontrolled sand and gravel mining leading to coastal erosion Clearance of vegetation, nesting areas, feeding areas	Reuse crushed concrete. Procure sand and gravel in 'bulk' from licensed quarries. If licensed quarries are not available and it is not feasible	ESMP

Activity	Significant Potential Impacts	Key Mitigation Measures	Safeguard Tools
and structures.	for wildlife. Disputes over access to land or access to resources. Occupational health and safety of quarrying / mining.	to transport aggregate from other areas: - Identify borrow pits / excavations that could be used for small sources. - Avoid beach mining in areas where erosion or inundation could be exacerbated. - Undertake a screening assessment to identify potential environmental and social risks, and submit an environmental license application form to the DEPC. - Apply to Dept of Geology and Mines for an 'Occasional Permit'. - Obtain licenses and permits from Dept. of Geology and Mines, and DEPC prior to operation. - Negotiate access to resources, including a fair price, from rightful resource owners. - Ensure occupational health and safety procedures, training and equipment for all operations.	
Relocation of structures onto new sites.	Involuntary land acquisition.	Avoid new sites where possible. Use participatory processes with communities to identify suitable alignments / locations. Consult and gain voluntary land donation or lease for all works (whether relocated or within the existing footprint).	Voluntary Land Donation Protocol Land Leases Resettlement Policy Framework
	Removal of structures (fences, animal pens) income-generating assets such as trees or crops.	Consultation with owners and compensation for lost asset or income.	

Activity	Significant Potential Impacts	Key Mitigation Measures	Safeguard Tools
	Damage to physical cultural resources, including graves.	Survey the site and consult with land owners prior to finalizing design. Realign to avoid PCR or otherwise move or protect PCR as required by land owners and GoV. Follow chance find procedure.	Project screening checklist (Annex 0). Chance find procedure (Annex I).
	Damage to rare vegetation or habitats such as nesting areas, feeding areas for wildlife.	Survey the site and consult with land owners prior to finalizing design. Realign to avoid critical natural habitats and otherwise mitigate through replanting.	Project screening checklist (Annex 0). ESMP
Renovating / replacing buildings on existing sites.	No land owner consent leading to grievances or delays.	Consult and gain voluntary land donation or lease.	Voluntary Land Donation Protocol Land Leases Resettlement Policy Framework.
Construction and Demolition Waste.	Asbestos containing materials are mishandled and create a health issue for workers or create a legacy issue from incorrect disposal.	Use trained personnel to survey for Asbestos-containing materials. Asbestos containing materials to be wrapped/contained to avoid creating dust and buried in a demarcated area in a landfill (in Tanna or Port Vila, to be confirmed during project implementation).	Asbestos Protocol
	Waste is stockpiled, burnt or buried in a way that creates a health and safety hazard. Materials are wasted when they could be reused.	Stockpile reusable materials for use by the community. Separate out recyclables that can be taken to Port Vila for recycling. Crush concrete to provide aggregates for road repairs. Take non-recyclable, non-reusable materials to the landfill in White Sands, Tanna.	Waste Protocol

Activity	Significant Potential Impacts	Key Mitigation Measures	Safeguard Tools
		Take hazardous waste to the landfill in Port Vila.	
	Left over wet concrete is discharged to water ways or coastal areas, killing wildlife.	Avoid discharge of wet concrete or cement powder into water ways or coastal areas. Repurpose left over wet concrete for other uses. Pour left over wet concrete onto the ground to harden. Dispose of hardened concrete.	Waste protocol.
Earthworks creating stockpiles of sediment.	Discharges of sediment to water ways or coastal areas.	Avoid dumping of sediment into water ways or coastal areas. Stockpile excess sediment at least 20m from water ways and high tide, for reuse by locals. Spread and stabilize (by planting) excess sediment to avoid erosion.	ESMP.
Use of oil, petrol, diesel and chemicals.	Discharges of waste oil or hazardous spills into ground or waterways.	Safe storage of hazardous materials. Contain waste oil for recycling. Refuel machinery at least 20m from waterways and coastal areas. Dispose of all containers and waste materials at an approved landfill.	ESMP
Noise and vibration from heavy machinery.	Nuisances to households, health centres and students at the school.	Limit operating hours for heavy equipment to outside school hours / terms but not between 1800 and 0600 daily. Warn communities of noisy or vibrating work.	ESMP

Community and student health and safety during construction.	Safety incident due to students or community members entering the work site.	Use warning signs and demarcate construction areas that are 'no go' for non-workers. Warn the students and communities of how to be safe around the construction sites.	ESMP
Use of local labor and 'imported' labor (from other communities, islands or countries).	Exploited for cheap labor. Gender inequity. Unsafe work practices. Imported work force causing disruption to traditional / island lifestyles or creating health or safety issues.	Consult with the land owners and broader community about income and employment opportunities and get broad support for labor schemes such as Island-based Contractors or casual employment of labor, for working hours/days and for equal opportunity for training and employment. Employment should be consistent with Vanuatu labor laws and no children (under 16 years old) shall be employed. Women and men shall have equal opportunity for training, employment and income. Provide suitable training to locals to do the work safely and provide all relevant safety equipment. Where teams of imported labor will be present: Provide worker training in HIV / AIDs and cultural awareness. Inform communities of potential issues prior to construction. Ensure adequate accommodation and services are provided for the duration of the work.	World Bank Group EHS Guidelines.
Technical advisory.	Outputs that are contrary to good environmental management and community well-being, and contrary to donor safeguard policies or the laws of the GoV.	Requirement for consultants to consider environmental and social impacts and aspects as part of the advisory service.	Terms of Reference for Technical Advisory
Operation of sanitation facilities.	Poor maintenance leads to inadequate treatment or exposure of untreated effluent and pollution of water.	Provide maintenance and monitoring manuals and provide training to ensure that the sanitation facilities are maintained to the standard they were designed for.	ESMP

5.2 Emergency Operations Under Component 5

Any activities that arise under Component 5, in rapid response to disaster, emergency and/or catastrophic event will go through the screening process under Section 6 and Annex 0 and the relevant safeguards instruments will be prepared and implemented. Consultations with land owners, beneficiaries and potentially affected people will take place during the assessment of damage to infrastructure and the in the development of the response plan.

6 Safeguards Procedures

There are two sets of tasks to be completed under this ESMF. The first (Section 6.1) is a list of tasks for the Safeguard Specialist to complete before the sub-projects have been identified. These tasks are preparatory and will assist sub-project selection and management of potential risks and impacts. The second (Section 6.2) is a detailed methodology for screening sub-projects, or groups of sub-projects to determine the likely risks and the appropriate safeguard instrument(s).

6.1 Tasks to be Completed Before Sub-Project Identification

The PST Safeguard Specialist will be responsible for the following tasks, before the sub- projects are identified:

- Complete the Consultation and Participation Plan
- Ensure the standard protocols (such as the Waste Protocol) relating to mitigation procedures for common / typical impacts are up to date and make any amendments based on local facilities / service providers.
- Assist with the inclusion of standard clauses and relevant attachments to Terms of Reference and contracts for consultants and contractors (Refer Annex F). Ensure that an Asbestos Specialist is recruited in the design consultancy team to undertake an inventory of asbestos in the buildings and develop a detailed plan for safe and effective demolition and waste disposal.
- In partnership with DEPC, prepare a list of likely sub-projects requiring environmental permits (including those likely to need a PEA and / or EIA), based on the EPC Act and Regulations, and agree on a system or process for applying for environmental permit (such as applying for multiple sites in one permit, or having standardised approaches to permit applications for common projects).

6.2 Screening of Sub Projects

The following provides the steps in the assessment of sub-projects. The process complies with Vanuatu legislation and the safeguards requirements of the World Bank.

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 the World Bank environment category (A, B, or C).

Refer to **Screening Checklist S1** in Annex O.

The significance of the project's environmental impacts determines the environment Category of the project:

- 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. Coastal protection works, river embankment works, and river crossing works may 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 DEPC may require a PEA. Minor repairs to existing structures, roads and footpaths are likely to fall in this category.

As most sub-projects relate to renovating existing infrastructure, it is likely that each sub-project will be Category B or C. Category A projects are unlikely, and they are not eligible for funding because the scale of assessment and mitigation required will divert resources from lower risk / higher benefit projects and reduce the efficacy of the PDO. Accordingly only Category B and C project will be funded.

Step 2. Determining the safeguard instrument to be used.

The second step in the screening process is to determine what type and extent of assessment may be required and what instrument will be required (environmental permit, ESMP, EIA).

- 1) Refer to **Screening Checklist S1** in Annex 0. This will identify the instrument.
- 2) Refer to **Screening Checklists S2, S3 and S4** in Annex 0 to confirm the nature of impacts and what should be covered in the instrument.

The PST Safeguards Specialist will conduct the screening, or will receive screening documentation from the PMU to review. Screening summaries will be forwarded to the Bank for review and concurrence. This may happen now, or after Step 3.

Step 3: Integration with Design

PST Safeguards Specialist will discuss the screening outcomes with the design personnel and the community to identify ways to reduce or avoid adverse impacts. Any adjustments to the sub-project categorisation or safeguard instrument can be refined following this process. Any adjustments will be forwarded to the Bank for review and concurrence.

Step 4: Preparation and Disclosure of Safeguard Instruments

The PST Safeguards Specialist will prepare the relevant instruments, both for GoV and the World Bank processes. This process may include site visits and data gathering, consultation and public disclosure of the documents.

Where no separate instrument is required, the works will default to the ESMF for guidance.

Step 5: Implementation

The PST Safeguards Specialist will ensure that all relevant Voluntary Land Donations or lease arrangements have been provided, and any lost assets are compensated, and / or the involuntary land acquisition (via the Resettlement Action Plan) has been successfully implemented, before works begin.

The PST Safeguards Specialist will conduct any relevant training.

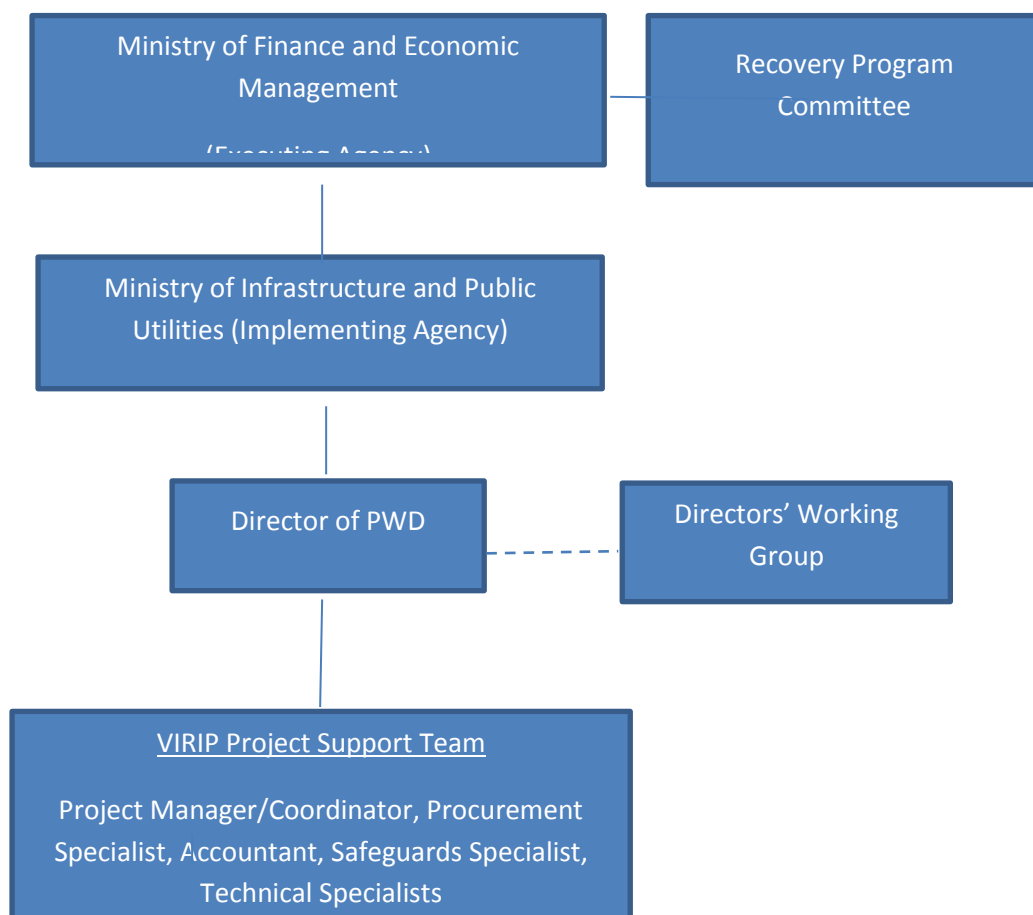
The design consultants and the construction contractors will be responsible for implementing the ESMF and ESMP safeguard instruments, and the conditions of the environmental permit. The instrument and their responsibilities will be cleared documented in TOR and contracts.

The PST Safeguards Specialist will supervise the implementation of the safeguards instruments and environmental permit. They will be responsible for monitoring and enforcing the instrument. Reports from the supervising contractors and managing engineers will require details on the day to day observations of safeguards management.

7 Institutional Arrangements and Responsibilities

The executing agency for VIRIP will be the Ministry of Finance and Economic Management (MoFEM), and the Ministry of Infrastructure and Public Utilities (MIPU) will be the implementing agency. Arrangements for implementing the project are outlined in the following organizational chart.

VIRIP Implementation Arrangements



VIRIP Project Support Team. A Project Support Team (PST) will be established to support MIPU in implementing VIRIP and be the principle working counterpart for the Bank. The PST will work closely with and keep the Recovery Program Coordinator informed of day-to-day aspects of VIRIP, but would ultimately be responsible to MIPU for all VIRIP activities. It is expected that the PST would consist of four individuals with specialist expertise in project management, procurement, accounting and financial management, and safeguards. The PST, under the guidance of MIPU, would have responsibility for overseeing and managing all aspects of VIRIP's execution. This would include ensuring compliance with project requirements associated with procurement, inspection and certification of works, financial management and auditing, safeguards, monitoring and evaluation, and project reporting. The PST would oversee tenders, prepare procurement documents, advertisements, evaluations of bids and proposals, finalize and negotiate contracts for goods, works and services for signing by MIPU, arrange payments of suppliers, contractors and consultants, and

prepare and submit withdrawal applications to the Bank. The PST would also maintain procurement files and records, and be responsible for ensuring that environmental permits from the DEPC are secured.

PST Safeguards Specialist. This position within the PST is responsible for implementation of the ESMF, including ensuring that (i) environmental approvals from the DEPC are secured; (ii) organizing and providing training on ESMF procedures for the PMUs; (iii) addressing the potential for asbestos; (iv) preparing EMP(s) once work lists are confirmed; (v) helping with consultations; (vi) monitoring the early works to ensure that the construction teams have the training and skills to comply with EMP and ESMF; and (vii) ensuring bid documents and contracts have requisite safeguards instrument(s) attached. The PST will also be actively engaged in supporting the resolution of grievances that have not been suitably resolved by contractors, and/or supervising engineers/managing contractors or the relevant PMU.

Supervising Engineers for PWD. The PST is expected to contract supervising engineers (up to three) to support overall execution and day-to-day implementation of project activities related to transport and public buildings, including overseeing all aspects of construction works with the support of site inspectors (four per island), and administering contracts. Supervising engineers would also be responsible for implementing the ESMF and / or ESMP in design and supervising the implementation of ESMF and / or ESMP in construction. They may support the Contractors to resolve grievances where necessary.

Managing Contractors for MoET. Managing contractors, would be contracted by the PST to oversee execution and day-to-day implementation of VIRIP activities associated with schools and public buildings. They would implement the ESMF and / or ESMP during design and supervise the implementation of the ESMF and / or ESMP in construction. They may support the Contractors to resolve grievances where necessary.

Project Management Units. PMUs would be established to implement specific aspects of GoV's recovery program and to support implementation of donor-funded projects. It is expected that PMUs would be created within MIPU's Public Works Department and the Ministry of Education to support with the recovery of infrastructure assets in their respective sectors.

The PMUs would be responsible for ensuring their Managing Contractors and Supervising Engineers are undertaking their roles in respect to the safeguard instruments. The PWD PMU will be supported by staff from their Social and Environmental Unit. The Social and Environmental Unit have 6 staff, and are developing guidelines and procedures under an umbrella Social Safeguards Framework under MIPU.

Contractors (IBCs etc.). Contractors are responsible for the day-to-day implementation of mitigation measures in the ESMF and / or ESMP. They may require training, and may need to hire or purchase specific equipment. They will be responsible for health and safety of the workers, volunteers and bystanders / the community. They will be responsible for ensuring imported workers (from other communities, islands or nations) are socialized in the customs of the local communities. They will also receive and manage any complaints, and keep a record of complaints to forward to the PST.

8 Consultation and Information Disclosure

Consultation and information disclosure is key to securing community buy-in to the projects, and to acceptability of project impacts. MIPU will identify stakeholders, and the media and fora that are most accessible and acceptable to them in the local context.

The draft ESMF was publicly disclosed on Friday 8th April in Vanuatu, and a consultative workshop was held with Government stakeholders (refer Appendix A).

8.1 Consultation during project implementation

Citizen engagement and consultation will occur during project implementation, once projects have been selected by the MOET and MIPU and PST for implementation. Detailed consultation methods will be developed in the consultation and participation plan (CPP), based on the principles in Appendix C.

Local communities (who are also the land owners) will be approached once project have been identified and before detailed design has been completed. Extensive engagement will be carried out using Nakamal protocols, inclusive of women and youth, with the support from Community Participation Officers. Provincial and Area Councils will also be involved in early and ongoing consultations. Engagement of communities and interested parties will be a key approach to ensuring that there is support for the projects and the projects meet the needs of the end users, with appropriate mitigation in place.

Following the development of the subprojects as above and safeguards instruments have been drafted, formal and documented public consultation and information disclosure will be required in accordance with the World Bank requirements for public consultations with project beneficiaries, affected persons and key stakeholders on safeguard documents; and government's consultation and information disclosure requirements identified in the Environmental Protection and Conservation Act.

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

8.2 Methods of communication

Methods of citizen engagement, information dissemination and consultation will include:

- Nakamal meetings for beneficiaries of the recovery projects. Meetings will enable all segments of the community, including youth, women, aged or otherwise vulnerable individuals to participate and contribute to the discussions, as per custom. These meetings will be facilitated by Community Participation Officers. Based on needs, separate consultations for men/women could be organized to ensure beneficiaries interest and concerns are voiced.

- Land owner and community meetings to discuss access to aggregates or land use for infrastructure where there may be benefits and impacts beyond the immediate project beneficiaries.
- Meetings to inform Provincial and Area Councils of project developments.

Materials prepared for presentation at Nakamal and land owner meetings will be in Bislama, non-technical and include visual content. Attendees should understand the legal framework within which the project will operate, their rights, and how to make comments or register complaints about any project using the GRM. The CPO's will make sure that there is ample discussion time, and that the format is conducive to participation by all parties (men and women). S/he will keep records of attendance, comments and any resolutions or agreements adopted at meetings of all kinds. These will be promptly fed back to technical team members as appropriate, reflected in project design and in reports on consultations that will form part of the regular project reporting structure. Several meetings may be required to get full understanding and agreement of the project.

8.3 Stakeholders

- Department of Environmental Protection and Conservation.
- National Disaster Management Office
- Ministry of Women's Affairs
- Department of Lands and Surveying
- Roads for Development
- Provincial Councils
- Area Councils
- Civil society organizations working in the gender, health, socio-economic development and environment sectors may have an interest in issues such as the operation of cyclone shelters, management of asbestos waste, safe construction and operation of road assets. The umbrella Vanuatu Alliance of Non-Governmental Organizations (VANGO) will be a useful point of contact with these stakeholders.
- Communities / Nakamals / Land owners / men and women who will benefit from the improved infrastructure or may suffer adverse impacts from construction, sourcing aggregates, water quality issues etc.

9 Grievance Redress Mechanism

This section provides guidance for complaints management. The purpose is to provide a centralized 'grievance redress mechanism' (GRM) for the Project which can also be applied to meet the Bank's safeguard requirements.

The GRM outlines a process for documenting and addressing project grievances (complaints) that may be raised by affected persons or community members regarding specific project activities, environmental and social performance, the engagement process, and/or unanticipated social impacts resulting from project activities. It describes the scope and procedural steps and specifies roles and responsibilities of the parties involved. The GRM is subject to revision based on experience and feedback from stakeholders.

World Bank Requirements

The grievance process is based upon the premise that stakeholders are free to raise their concerns to relevant representatives at no cost or threat of any negative repercussions; that concerns arising from project implementation are adequately addressed in a timely and respectful manner; and that participation in the grievance process does not preclude pursuit of legal remedies under the laws of the country.

The MIPU PST will manage the GRM, utilizing formal, informal and traditional grievance procedures suitable to the Vanuatu context. Generally, complaints and disputes will be resolved at the community level as much as possible. Grievances may be firstly referred to customary conflict mediation arrangements where appropriate, so long as they are not directly affiliated with leaders who are party. If the issue cannot be resolved at this level, it will be raised to the next level and so on (Figure 1).

The PST will aim to address all complaints received, regardless of whether they arise from real or perceived issues. Any stakeholder (man or woman) who considers themselves affected by the project activities will have access to this procedure at no cost or threat of any negative repercussions. The statutory rights of the Complainant to undertake legal proceedings remain unaffected by participation in this process. The structures of the GRM will include women members and/or ensure that female stakeholders are able / feel comfortable lodging complains. The MIPU PST should be aware of potential gender-specific problems.

Limitations

The GRM does not deal with grievances relating to internal communication or disputes between the project team, Implementing Agency, other agencies; nor intra/inter-community conflicts that are not project-related.

Objectives

The GRM has the following objectives:

1. Establish a prompt, easy to understand, consistent and respectful mechanism to support the PST in receiving, investigating and responding to complaints from community stakeholders;

2. Ensure proper documentation of complaints and any corrective actions taken; and
3. Contribute to continuous improvement in performance through the analysis of trends and lessons learned.

Institutional Arrangements

The MIPU PST will be responsible for managing grievances including updating the grievance database to track the progress of formal grievances for the duration of projects. This involves coordinating between key agencies on a regular basis (i.e. weekly or fortnightly). The PST is responsible for final oversight of community consultation and grievance management. The Ministry of Education and PWD PMUs will be briefed on the GRM and expected to follow it as part of the oversight of their subprojects.

The PST will administer the grievance database. Nominated staff will regularly update the grievance database in consultation with key agencies where complaints are raised. All project-related grievances should be captured in the database regardless of the agency they were raised with. The PMU's should be involved in the resolution of all project-related grievances that sit within their key functions, and shall support other key agencies with adequate resources and staffing as necessary to ensure grievances are effectively resolved.

Awareness of GRM

The PST will inform the PMUs, Area Councils, communities, Community Participation Officers, project teams, contractors and key agencies on the GRM.

Communities and affected persons should be advised of the GRM in the early stages of engagement, and be made aware of:

- How they can access the GRM (i.e. key people and complaint forms);
- Who to speak to and lodge a formal complaint;
- The timeframes for each stage of the process;
- The GRM being confidential, responsive and transparent; and
- Alternative avenues of dispute resolution where conflicts of interest exist.

III. Grievances Procedure

The grievance resolution process includes four key stages – (i) Receive; (ii) Investigate/Enquire; (iii) Respond and (iv) Follow up/Close Out as illustrated in Figure 1.

Affected people are, in the first place, to discuss their complaint directly with the Nakamal leader. If the Nakamal leader supports the complaint both persons take the complaint to the PST, or the Ministry during the project planning and design stage, or the contractors site office or directly to the PMU or PST during construction. For those who wish to remain anonymous, a register of their complaint or issue can be made on a register held with the Nakamal leader. This register will be provided to the contractor as per the above.

Relevant personnel in each PMU will be required to accept formal grievances and ensure avenues for lodging grievances are accessible to the public and affected persons. This may be in verbal or written form. The grievance should be formally documented on the grievance form (Annex J), assessed on its level of urgency/severity and assigned to the appropriate person who then acknowledges within two days to the Complainant, that the grievance has been received and is under review.

The severity of each grievance and subsequent course of action shall be determined by the relevant PMU. If the issue is easily resolvable, the responsible party should endeavor to address the issue directly on site. The records shall be kept and filed into the Grievance database managed by the PST. If the grievance is a more complex issue, it may require additional meetings and further investigation, and / or may need to be managed by the PST rather than the PMU. A formal response should be provided from the PST within a two-week timeframe or a timeframe that has been agreed to with the Complainant. If additional time is needed, the Complainant will be advised of this in advance.

Figure 1 Stages in the Grievance Resolution Process



Table 1 below outlines the timeframes for each stage of the grievance process.

Table 1 Grievance timeframes

Timeframe	Stage
1 day	Grievance reported and referred to nominated person / project representative in the PMU.

2 days	• Determine severity of grievance • Acknowledge receipt of grievance to Complainant • Resolve immediately if possible • Grievance report sent to PST and logged in database
14 days	• Meeting with relevant parties, village leaders etc. (either PMU or PST, depending on nature of complaint) • Confirm resolution with Complainant and seek their approval.
30 days	• Grievance closed out by PST. • Database updated by PST.

If an agreement is not reached between the Complainant and the PST, the grievance will be escalated to the PSC for review and a final decision. If necessary, further action will be taken to resolve the issue. If the Complainant is still dissatisfied with the outcome, they may be referred to the legal process, however, courts should be the last avenue for addressing grievances.

A grievance is closed out when no further action can be or needs to be taken. Grievances should be closed out within 30 days (Figure 1). The response should communicate findings of the investigation and resolution, and seek approval from the Complainant. The Complainant will either accept or appeal the outcome. If the Complainant is satisfied with the outcome then the grievance is closed out and they provide their signature (or fingerprint) on the grievance form as confirmation.

Closure status will be entered into the Grievance database as follows:

- Resolved – resolution has been agreed and implemented and signed documentation is evidence of this.
- Unresolved – it has not been possible to reach an agreed resolution and the case has been authorised for close out by the PSC.
- Abandoned – cases where the attempts to contact the Complainant have not been successful for two months following receipt of formal grievance.

10 Monitoring and Reporting

Each ESMP will contain a monitoring and reporting program suitable for the sub-project. In line with the project results framework, and where relevant gender-disaggregated data is available, it should be included in the reporting.

The Contractor or the Supervising Engineer and Managing Contractor and contractor may all have responsibilities for monitoring and reporting. The PST Safeguards Specialist will undertake safeguards supervision and monitoring at least every two months in addition to compliance checking being undertaken on a daily basis by the Supervising Engineer and Managing Contractor. Following the supervision and monitoring checks, reports will be prepared by the Supervising Engineer and Managing Contractor and submitted to the PST Safeguards Specialist.

The Asbestos Specialist will be required to submit sampling reports, waste disposal reports and other documentation to the PST Safeguards Specialist on a quarterly basis.

The PST Safeguards Specialist will prepare quarterly progress reports that will summarize the monitoring undertaken by the other parties, and their own monitoring. These reports will be submitted to MIPU, DEPC and WB.

The PST Safeguards Specialist will prepare semi-annual safeguards monitoring reports, and submit to MIPU, DEPC and WB. These reports will be disclosed to the public.

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).

A. Summary of Consultation Workshop, April 8, 2016

The ESMF and RPF documents were the subject of a consultation workshop held at MIPU headquarters in Port Vila on April 8, 2016. The workshop was attended by key government stakeholders (refer below for list of attendees).

Issues that were raised during the discussions included: ensuring Provincial and Area Councils were involved in project planning, using Community Participation and Community Partnership Officers to assist with community engagement during project planning and implementation, and ensuring the national laws, including the Environmental Protection and Conservation Act, were complied with throughout the project. It was noted that PWD and MoET have systems in place to engage the community with any proposed projects, and that the ESMF should be strengthened to show this. The role of the safeguards specialist in the PST was discussed, including whether the person should be a national or international, and which option would provide sustainable benefits. There was a query about who pays for land acquisition. The Bank team confirmed that it would be the Government of Vanuatu. It is expected that assets supported under the project will be reconstructed and/or improved within their existing boundaries and will avoid, or require minimal, land acquisition. In case land acquisition is required, involuntary land acquisition is only a backstop approach to a project that will rely primarily on voluntary land donation or lease arrangements.

The frameworks were disclosed on the Government's official website on April 8, 2016 (<http://gov.vu/virip>), and distributed to the attendees at the meeting.

Attendees:

Person and Title	Institution
Johnson Binaru, Director General	Ministry of Infrastructure and Public Utilities
Sam Namuri, Director of Public Works Department	Ministry of Infrastructure and Public Utilities
Tony Sewen, Director	Ministry of Finance and Treasury
Jone Roqara, Deputy Director	Public Works Department
Uravo Nafuki, Environment and Social Officer	Public Works Department
Paula Baleilevuka, Engineer	Public Works Department
Jennifer Cavill, Graphic Designer	Public Works Department / AUID
Jason Andrews, Senior Env. And Social Officer	Public Works Department
Ann Tosiro, Senior Community Partnership Officer	Public Works Department
Ambatha Paraliu, Manager Operations	Public Works Department
Bob Nikaih, Architect	Ministry of Education and Training

Gordon Craig, Infrastructure Advisor	Ministry of Education and Training
Bob Nikaih, Architect	Ministry of Education and Training
Noel Naki, Geodic Control Surveyor	Department of Lands and Survey
Frederick Hosea, Infrastructure Expenditure Analyst	Ministry of Finance and Treasury
Richard Farrell, Sr. Road Engineer	Roads for Development Program
Ted MacDonald, Advisor	Ministry of Infrastructure and Public Utilities
Ian Iercet, Architect	Public Works Department
Reedly Tari, EIA Officer	Department of Environmental Protection Conservation
Iain Haggarty, Consultant	Department of Environmental Protection Conservation
Kate McPherson, Environment Legal Support Officer	Department of Environmental Protection Conservation
Pene Ferguson, Environmental Safeguards Specialist	World Bank
Jim Reichert, Senior Infrastructure Specialist	World Bank
Jane Sprouster, Operations Officer	World Bank
Imogen Halstead, Senior Economist	World Bank

B. Screening Checklists

Environmental Safeguard Form S.1: Safeguard Policy Triggering and Safeguard Document Requirements

Subproject Details: _____

Question	Answer		If Yes Policy triggered	Next Steps
	Yes	No		
Are the sub-project impacts likely to have significant adverse environmental impacts that are sensitive, ⁷ diverse or unprecedented? ⁸ Please provide brief description:			<i>OP 4.01 Environmental Assessment</i>	If "No": proceed to next screening question. If "Yes": not eligible for project financing as would be Cat A
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>	If "No": proceed to next screening question. If "Yes": not eligible for project financing as would be Cat A

⁷ 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).

⁸ Examples of projects in the road 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.

⁹ Generally, sub-projects with significant resettlement-related impacts should be classified as Category A. Sub-projects that would require physical relocation of residents or businesses, as well as sub-projects that would cause landowners to lose more than 10 percent of their productive land area are classified as Category A.

Question	Answer		If Yes Policy triggered	Next Steps
	Yes	No		
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>	If “No”: proceed to next screening question. 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? ¹⁰ Please provide brief justification.			<i>OP 4.01 Environmental Assessment</i>	If “No”: Category B. Prepare ESMP. May also need a PEA for minor activities or EIA for activities with significant impacts. If “Yes”: Category C. Prepare PEA if relevant. Follow the ESMF protocols.
Is the project neither a Category A nor Category C as defined above? ¹¹ Please provide brief justification.			<i>OP 4.01 Environmental Assessment</i>	If “Yes”: Category B. Prepare ESMP. May also need a PEA for minor activities or EIA for activities with significant impacts.

¹⁰ 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.

¹¹ 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	Next Steps
	Yes	No		
Will the project adversely impact physical cultural resources? ¹² Please provide brief justification.			<i>OP 4.11 Physical Cultural Resources</i>	If "Yes": Category B. Prepare ESMP, or stand alone PCR management plan if there are no other risks to manage. May also need a PEA for minor activities or EIA for activities with significant impacts. If 'No': Ensure 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>	If 'No': Refer to next screening question. If "Yes": Category B. Prepare ESMP. May also need a PEA for minor activities or EIA for activities with significant impacts.
Will the project involve the significant conversion or degradation of critical natural habitats? ¹³			<i>OP 4.04 Natural Habitats</i>	If "No": Refer to next screening question. If "Yes": not eligible for project financing as would be Cat A or inconsistent with the Policy.

¹² 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.

¹³ 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	Next Steps
	Yes	No	Policy triggered	
Does the sub-project involve involuntary land acquisition?			<i>OP 4.12 Involuntary Resettlement</i>	If “No”: Refer to next screening question. If “Yes”: Refer to the RPF.
Does the sub-project involve voluntary land donation, 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>	If “No”: Refer to next screening question. If “Yes”: consult and prepare relevant documentation as per Annex K.

Environmental and Social Safeguard Screening Form S.2: Social Impacts

Name of the Sub-project: _____

Locality, and Nakamal(s), Custom land owners _____

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			
Available government land			
Other (describe)			
1.5 Is documentation attached in case of donation, lease, or use of Government land			
2. Loss of Assets or Sale of Assets			
2.1 Are there losses of structures?			No and type
2.2 Are there losses of income sources and other assets? How many households are affected? How many female-headed households affected? How many vulnerable households are affected?			List no. of households affected (by gender of household head):
2.3 Are there available resources to compensate them at replacement cost? Source of funds?			If yes, describe source:
2.4 Has an agreement been reached as to the access to sand, aggregate, gravel, rock or other material, and is there a fair price negotiated? (in addition to			

	relevant permits and licenses)			
2.5	Will the project have any impacts on customary fishing practices or access to shared resources relied upon for livelihood purposes			If yes, describe how they will be compensated:
4.	Cultural Property			
	Any negative impacts on cultural property such as grave sites, tambu sites, historical buildings etc.			

Environmental Safeguard Screening Form S.3: Environmental Screening for Road Assets

Name of the Sub-project: _____

Locality: _____

Description of the area: _____

_____ (environment, land cover, sensitive areas)

Potential Impact	Assessment {Put only one tick (v) in each row}		Mitigation Plans / Instruments
	NO Negative Impact or <u>NOT</u> <u>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 migrant workers.			
Impact on access to wild areas, food gathering, etc., during construction and operation.			
Negative reaction to public due to poor information.			

Environmental Safeguard Form S.3: Environmental Screening for Schools and Public Buildings

Name of the Sub-project: _____

Locality: _____

Description of the area: _____

_____ (environment, land cover, sensitive areas)

Potential Impact	Assessment {Put only one tick (v) in each row}		Mitigation Plans / Instruments
	NO Negative Impact or <u>NOT</u> <u>Significant</u>	Significant Impact	
Safety hazards during construction.			
Asbestos-containing materials present.			
Solid waste recycling and disposal.			
Oil and grease contamination during construction.			
Design is gender sensitive.			
Entry of migrants.			
Peace and order problems.			

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

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

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

C. Consultation and Participation Plan (CPP)

To be completed, based on the PWD Partnership Establishment Guide V1, under the MIPU Social Safeguards Framework.

Gender Considerations

The proposed information sharing and participation mechanisms should be gender-sensitive in their design. The Community Participation Officers will receive gender training, if required, in this approach (by a suitable local NGO) to ensure they facilitate the active participation of women and marginalized groups in project planning, implementation and evaluation.

Some other aspects to consider during the design:

- Consultations should allow for separate consultations with men and women where necessary to ensure that they can freely express their views.
- Ensure there are male/female facilitators who can disseminate information and collect feedback. Training of area coordinators and community facilitators shall include gender training and
- Ensure equal participation of women during project implementation including encouraging women's equal participation in decision-making, for example by establishing targets or specific initiatives (such as skills training). Core leaders and members of the various community-decision making committees should include a significant number of women.

D. Waste Protocol

At present there is no estimate of how much debris will be generated by this project. The table below provides potential options to manage construction and demolition waste with intent to maximize reuse, minimize disposal and ensure safe disposal of hazardous and non-reusable materials.

Type of Waste	Reuse, Recycling or Disposal Option	Comments
Vegetation, untreated sawdust	Composting	
Damaged paper, books, school resources, files etc.	Recycling where possible. Otherwise, landfill.	Refer to recycling operators in Port Vila for a viable market.
Timber	Stockpile for reuse in the village Firewood	Ensure all treated timber is separated out and disposed to landfill.
Fibreboard (timber or cement based, non-asbestos)	Stockpile for reuse in the village Broken / small pieces – White Sands Landfill	
Treated timber.	White Sands Landfill	
Metals (all types), wire, electronic equipment, damaged bicycles, white goods (cookers, small appliances), drink cans, iron roofing, re-inforcing bar, downpipes.	Stockpile for reuse in the village where possible (particularly roofing iron) Recycling	Refer to recycling operators in Port Vila for a viable market.
Glass	Reuse in the village where possible Recycling where possible Otherwise White Sands Landfill	Refer to recycling operators in Port Vila for a viable market.
Hazardous waste: Paint, lubricants, fuels, solvents, glues, cleaners, medical wastes, batteries, etc., including empty containers that once had hazardous	Segregate for disposal at an appropriate landfill.	Check whether White Sands Landfill can take this material, otherwise check the Port Vila landfill.

Type of Waste	Reuse, Recycling or Disposal Option	Comments
materials.		
Asbestos-containing materials	Landfill – requires specialist procedures	Asbestos Specialist will manage these materials.
Tiles, bricks, concrete, ceramic, stone, concrete	Stockpile for reuse in the village where possible. Crush remainder to max. 10 cm size for use in road bases or backfill.	Consider the use of a mobile crusher that can be moved between building sites.
Other (non-hazardous)	Reclaim where possible for reuse in the village. Otherwise, White Sands Landfill	

E. Asbestos Protocol

Background

The preliminary damage assessments carried out by MoET in the immediate aftermath of TC Pam pointed to the potential use and subsequent exposure of asbestos wall cladding in schools and public buildings. This has not been quantified and a register has not been prepared. The location and volume of materials is currently unknown. For this project an Asbestos Specialist will be engaged to assist with the identification of asbestos in the buildings subject to replacement, renovation or demolition, and the handling, removal and disposal of asbestos-containing materials.

Process

- 1) An Asbestos Specialist will be engaged to confirm the presence of asbestos in the buildings or building debris subject to funding under this project. The Specialist will hold a 'Certificate of Competency' from the New Zealand Department of Labour, or a similar certification indicating training and experience in the handling and disposal of asbestos-containing materials.
- 2) The Asbestos Specialist will visit each of the buildings that will be funded under this project and prepare an inventory of the waste types and volumes that will need to be managed under the Asbestos handling strategy.
- 3) No physical work on the buildings will be done until this inventory has been prepared and the asbestos has been removed.
- 4) An Asbestos handling strategy shall be developed by the Asbestos Specialist, and reviewed by the World Bank, prior to implementation. This shall include:
 - a. A list of all trained personnel who will work on the project (providing certification or training records);
 - b. A list of personal protective equipment required;
 - c. A list of equipment required for containing and disposing the materials.
 - d. Awareness raising methods for community members who may be (or have been) at risk.
 - e. Approved safe-work methods for undertaking building deconstruction, wrapping of contaminated materials and preparation for disposal.
 - f. Identify sites and pits to bury all the contaminated material.
 - g. Methods to obtain an environmental permit and prepare an Environmental Management Plan for a Category B project under the World Bank safeguards policy 4.01 Environmental Assessment.
 - h. If hazardous material needs to be transported to another state, then provide a strategy for obtaining the appropriate approvals under the Waigani Convention.
 - i. Identify a suitable location and method to burn all protective equipment
 - j. Debris removal should include the external areas of the garden that have been contaminated by Cyclone Pam.
 - k. Preparation of a register of contaminated sites as a result of this project.
- 5) All work will be carried out in accordance with the New Zealand Guidelines for the Management and Removal of Asbestos (3rd Edition) produced by the New Zealand Demolition and Asbestos Association (NZDAA), the World Bank Group 2009

Guidance Note on Asbestos Management

(<https://siteresources.worldbank.org/EXTPOPS/Resources/AsbestosGuidanceNoteFinal.pdf>) and the World Bank Group's "Environmental, Health, and Safety Guidelines" available at: www.ifc.org/ehsguidelines .

- 6) The site of the disposal of asbestos containing materials shall be clearly marked at the site, and in a national register of hazardous sites or similar register of land interests.

F. Terms of Reference for Technical Advisory

The Terms of Reference for any Technical Advisory contracts should contain the following clauses as a minimum:

1. Analysis should include the environmental and social aspects and impacts, consistent with the safeguard policies of the World Bank and the Environmental and Social Management Framework of the VIRIP.
2. Outcomes and outputs (such as design, construction methods, training materials, recommendations and advice) should be consistent with the safeguard policies of the World Bank and the Environmental and Social Management Framework of the VIRIP.

G. Contents of an Environmental and Social Management Plan

An ESMP 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). 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 and describe each mitigation measure with technical details.

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.

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.

H. ESMP Template for Road Sector Assets

Application. This template will be used for all road sector asset subprojects

Outline

- a) Project Descriptions, including Components, Costs and Location
- b) Potential Environment and Social Impacts and Mitigating Measures
- c) Monitoring
- d) Institutional Arrangements and Capacity Building

Project Descriptions

This section should describe the project, development objective, components, activities, location, project costs.

For this template, road construction means: spot improvements to existing roads, and in some remote locations, walking tracks, on several islands to repair cyclone damage and improve year-round accessibility to and for rural communities.

- c) Cyclone Damage. Although cyclone damage to roads was generally limited to washing out of bridge approaches and culverts due to excessive rainfall, there were also instances of severe, localized damage to exposed coastal roads and embankments from storm surges. Works would fund embankment repairs and strengthening seawalls in the form of rockfill revetments and masonry or gabion retaining walls.
.
- d) Rural Access Improvements. The types of road sector assets to be improved would typically be small structures in the form of drainage structures, including drifts and/or vented drifts on water crossings, pipe culverts, lined drains, or low-maintenance surfacing on steep grades in the form of concrete pavements or concrete “tire paths.” Funding would also be used for embankments across low-lying floodplains. In remote areas with no roads, walking tracks would be improved at critical locations with concrete steps or surfacing on steep grades and simple pedestrian bridges over water crossings.

Detailed information on the actual activities shall be provided here.

Potential Environmental and Social Issues and Mitigating Measures

The major impacts and measures should be described and are summarized below.

A meaningful and effective implementation of ESMP will be achieved by integrating the ESMP with the design and in the bid documents. To ensure that the bid documents reflect the real cost of environmental mitigation in their bids important mitigation items will be included as a “line item” in the Bill of Quantities. Thus there would be an identified extra payment in the contract to ensure that the work is carried out by the Contractor as specified.

During Construction

- **Site clearance** for right-of-way and establishing Contractor's work camps, staging areas, and so on, involves loss of vegetation including trees, loss of top soil, generation of waste material and generation of dust.

Measures. The impacts can be minimized or mitigated by minimizing the areas to be cleared, salvaging crops, chipping the vegetation for use as mulch, salvaging the top soil for future use, applying dust control measures, etc.

- **Bitumen plants, stone crushers, cement mix plants** used in the manufacture of bitumen seal, or concrete could involve a stone crusher as part of the asphalt or concrete mix plants. For large operations, the activities will involve crushing of stones using large and noisy equipment, conveyors to transport aggregates and sand, oil fired aggregate heaters and dryers and batch mixers or it could simply involve the heating of bitumen and hand mixing asphalt and stone chips. Potential environmental problems involve bitumen spills or improper handling of bitumen, surface water contamination, noise from crushers and air pollution, particularly dust and smell.

Measures. To a large extent most of these impacts are controllable and manageable by proper siting of the plants and using dust collectors and smell scrubbers.

- **Sourcing of construction materials** will involve creating borrow pits for earthworks materials; transport, stockpiling and use of such materials; disposal of unsuitable materials, etc. This has the potential to cause loss of agricultural land or encroachment on forest land or wetland to extract suitable materials and may cause safety issues resulting from materials transport, storage and handling.

Measures. The mitigation measures include identification of licensed quarries or obtain approval for sources of material, installation of temporary runoff / sediment control structures; dust and noise control; management of transportation, storage, and materials handling activities; tidy up any borrow pits after construction, and so on.

- **Stone crushing and concrete preparation.** Potential environmental problems involve surface water contamination from wet cement spills, noise and dust from crushers.

Measures. To a large extent most of these impacts are controllable and manageable by proper siting of the plants and handling of wet cement.

During Operation and Maintenance

- **Operation and Maintenance Phase:** There will be little extra vehicle movements as a result of the improvement in the road, but there will be increased resilience and road safety.

A generic ESMP matrix is shown in Attachment 1 below. The ESMP will include as detailed an implementation schedule as possible, based on this generic matrix. The budget to implement the ESMP will be estimated and included in the total project cost. Some aspects of the ESMP (such as dust control) will be part of good engineering design and will not require supplementary budget. Others will require additional budget, which will be estimated and included in the cost of implementing the ESMP.

Monitoring

Dust monitoring. As a principle, only those parameters which are pertinent to the project will be monitored. For example, where dust is a major source of impact, especially near schools, hospitals and residential areas, visual assessment/monitoring will be used to trigger watering of the site generating dust.

Noise. If there are complaints noise will be measured by a hand held noise meter.

Sediments. Discharge of sediments will be visually observed to ascertain the effectiveness of sediment traps.

In all cases, as soon as the monitoring results are available, the Contractor will be expected to remediate any problems immediately.

Most of the road projects will be small in size and the impacts will likely be low, site specific and short lived. The PST, in consultation with the DEPC, will develop project specific construction monitoring plans including parameters to be monitored, procurement of portable and hand held equipment such as noise meters, water quality measuring kits, air quality measuring meters, etc. as required. The cost of construction and operational monitoring, equipment, reporting, and training will be included in the project budget.

Institutional Arrangements and Capacity Development

This section will describe the institutional arrangement, safeguard staffing, and level of responsibility for implementing, supervising and monitoring of the ESMP during the construction and operational phases. This should be consistent with the ESMF.

The section should also describe the capacity building program built into the project with budget allocation and schedule.

Attachment 1

Generic ESMP Matrix for Road Projects (include relevant aspects in the ESMP)

Environmental Issues and Objectives	Mitigation Measures	Remarks
Design / Pre Construction Phase		
Protection of Sensitive Natural Areas Minimize negative impacts on sensitive environment	- Identify potential environmentally sensitive areas - Avoid or locate optional construction sites/activities away from sensitive areas. - Ensure construction personnel are aware of locations of sensitive areas	- Inspect the alignment for unique features and environmentally sensitive areas which require design accommodation or protection - Develop replantation program using local flora and in consultation with

Environmental Issues and Objectives	Mitigation Measures	Remarks
	• Include temporary fences / barriers to restrict construction activities from encroaching sensitive area	the local communities
Road Safety and Environmentally Sound Design • To avoid accidents during and after construction of the road • To provide sound drainage	• Include occupational health and safety requirements for the construction activities in the contract documents. • Ensure sufficient visibility along the road section and provide warning signs, where relevant, in design • Provide camber to effectively drain runoff away from road • Include cross drains at causeways, bridges, culverts, etc.	• Identify natural drainage pattern and soil percolation rates to design for rapid disposal of road runoff •
Cultural Heritage • To avoid damage to cultural heritage sites i.e. ceremonial sites and burial grounds	• When a cultural heritage site is identified during the construction, Contractor is to cease all work immediately and notify the relevant cultural institute	• Carry out public / community consultations prior to the start of construction and identify potential sites • Include a chance find protocol in the contract documents
Construction Phase		
Soil erosion, sediment and storm runoff control • Minimize the amount of sediment lost from the site • Minimize impact of storm water containing sediment and contaminated runoff water on	• Limit ground disturbance to areas of a workable size • Schedule construction to minimize areas of soil disturbance during wet seasons • Keep vegetation clearing to a minimum • Where vegetation was removed, re-vegetate all areas immediately after construction	• Apply to all activities such as site clearance, borrow areas, quarries, etc. where clearing is required

Environmental Issues and Objectives	Mitigation Measures	Remarks
streams and coastal areas	activity finishes and where the area is not to be paved after final land contouring • Reduce the time excavated drainage channels remain unsupported • Place geotextile silt traps at drainage ditches and materials stockpiles • Contain or isolate construction areas from other surface runoff. Clean and rehabilitate the area when construction is complete • Pass storm water run-off from construction areas through geotextile silt traps before discharge into culverts or drainage systems. • Prohibit discharge of sediment bearing contaminated water to streams and ocean	
Management of Stockpiles and Spoil-heaps • To minimize dust and runoff	• Identify dumping / stockpile locations with local landowners • Ensure that stockpile or spoil-heap locations do not block surface runoff or natural drainage • Install proper drainage to isolate the stockpile / dumping sites • Minimize erosion and sediment runoff by covering or vegetating spoil-heaps or stockpiles especially if prolonged exposure is envisaged, • Keep maximum stockpile height at 3m to prevent windborne deposition • Place silt traps around materials	• Applies to all dumping areas and materials storage areas such as stone crushers, concrete batch plants, asphalt plants, topsoil storage areas, etc.

Environmental Issues and Objectives	Mitigation Measures	Remarks
	stockpiles • Ensure that no stockpiles are able to release material into the sea or streams even under heavy rain or windy conditions • Stockpiles within 20m of water should be fitted with silt traps and covered to prevent windborne deposition into the waters. • Ensure that silt from silt traps do not drain into water	
Material Management • Minimize impacts of materials delivery and waste disposal	• Develop and implement materials delivery and waste disposal handling plan, to avoid / minimize materials delivery during peak traffic periods • Implement safety measures for vehicle operation and to prevent loss of load from trucks • Implement methods to reduce dust emission from the loads • Place silt fences around materials stockpiles • Maintain materials processing plant in good working condition so as to reduce emission from the plant;	• Applies to all materials extraction, storage and management areas
Extraction of Materials • To ensure that extraction of materials does not cause damage to local environment	• Balance cut and fill and explore availability of suitable materials from other ongoing projects • Obtain borrow materials from designated or approved borrow areas • Restore and re vegetate borrow areas to promote natural drainage • Place silt fences around materials stockpiles	• New quarry or borrow pit site to be confirmed by geotechnical investigations • Locate quarry or borrow pit away from natural / sensitive habitats • Ensure minimum groundwater impact • Prepare quarry or borrow pit plan, apply for environmental permit and

Environmental Issues and Objectives	Mitigation Measures	Remarks
	• Ensure haul trucks are not over loaded and are covered • Ensure that materials are not stored below the high water mark • Obtain sand, aggregates, gravel and stones from licensed operating quarry, or obtain an Occasional license for short term, small scale borrow pits. • Warn and clear people from surrounding areas before blasting • After completion of construction, restore quarry site as per quarry rehabilitation plan	secure quarry operating license / occasional license.
Storage and handling of fuel and lubricants • To minimize hazards relating to fuel, oil, paints etc.	• Store fuel oil and bituminous products in a dedicated, contained location away from drainage ditches. • Fuel in excess of 1,000 liters stored on site, should be stored in sealed tanks on a concrete base that is bunded to hold 110% of the tank capacity. • Install oil and water separators in all workshops • Only nominated authorized personnel to handles fuel • Develop procedures for cleaning up accidental spills. • Report any major spill immediately to Supervisor • Collect and dispose of all waste oil, oil and fuel filters at an approved landfill.	• Applies to all workshops, depots, storage sites work sites, construction plant sites and vehicles parking areas
Air Quality / Dust • To minimize and	• Bitumen plant generation (smoke, dust, smell, etc.) to meet regulatory requirements	• Mobile bitumen batching plant should be located 300-500m downwind of

Environmental Issues and Objectives	Mitigation Measures	Remarks
control dust generation and emissions from bitumen plant	for temporary bitumen plant - Minimize exposed soil / material stockpile surfaces to wind - Install wind breaks or fences around material stockpiles, concrete batching and asphalt plants - Spray water on exposed soil surfaces and access roads - Bitumen plant should be equipped with either bag house or wet scrubber particulate removing system	any settlements or inhabited areas and 150m away from any water bodies, streams or rivers
Offsite and Waste Management To prevent / minimize contamination from solid wastes, site drainage and sewage	- Contain all inert solid waste within construction sites and remove to landfill - Remove all hazardous waste to landfill. - Prepare procedures for managing spills to ensure rapid containment, immediate site cleaning and appropriate disposal to landfill. - Crush, and remove all nontoxic and nonhazardous inorganic solid waste to landfill. - Develop a plan for handover, sale or removal of all plant, vehicles and machinery at the end of the contract, ensuring that no unserviceable items of equipment are left behind (if relevant) - Install onsite pit latrines for men and women (or ensure there is access to toilet facilities nearby). Fill in latrines once the project is complete.	- Applies to all off-sites storage and disposal sites - Consider reuse of effluent from concrete batching plant after treatment

Environmental Issues and Objectives	Mitigation Measures	Remarks
	• Compost or use as animal feed all green or organic wastes • Reuse treated onsite drainage effluent for dust control, equipment washing, etc.	
Noise • To ensure that nuisance from noise minimized	• Use modern and well maintained equipment with mufflers where appropriate • Schedule noisy construction activities during normal working hours • Advise local residents and authorities of any unusual or unavoidable noise activities	• Establish clear construction work policies to ensure that sensitive receptors such as schools, hospitals, religious establishment are least inconvenienced • Avoid noisy work from 6pm to 6am and during weekends and public holidays
Health & Safety • To ensure maximum safety of construction personnel and local residents	• Ensure all occupational health and safety requirements are in place on construction sites and in work camps • Install cautionary signs in hazardous areas • Limit construction activities to between 6am and 6pm to limit community exposure to dust, noise etc. • Enhance safety and inspection procedures • Ensure use of Personal Protection Equipment (PPE)	• Applies to all construction sites
Health and Safety • Awareness for construction workers:	• Prepare a site safety plan specifying responsibilities and authorities within the Contractor's staff for: ➤ adherence to occupational health and safety requirements, ➤ use of personal protective equipment, ➤ warning signs at hazardous	• Applies to all construction sites

Environmental Issues and Objectives	Mitigation Measures	Remarks
	areas, ➤ setting rules for operation of vehicles and equipment by authorized personnel, ➤ setting procedures for safe handling of toxic and hazardous materials, ➤ arrangements for first aid and emergency procedures, ➤ posting notices about medical assistance and location of emergency equipment, ➤ setting schedules for regular checking of adherence to the plan and ➤ training staff to familiarize them with the plan, their obligations to implement it, and main areas of risk to workers and others • Provide for the management and control of traffic during the works, arrangement for safe delivery of construction materials and safe parking of vehicles and plant (both during and after working hours) • Education on basic hygiene practices to minimize spread of tropical diseases (migrant workers) • Increase workers' HIV/AIDS and STD awareness, including information on methods of transmission and protection measures (migrant workers) • Prohibit usage of drugs and alcohol during work.	

Environmental Issues and Objectives	Mitigation Measures	Remarks
Disruption of Utilities	• Maintain high standards of site supervision and vehicle and plant operation to reduce risks of damage to water, power and telecommunication lines • Prepare procedures for rapid notification to the responsible Authority • Provide assistance with re-instatement, in the event of any disruption	• Applies to all construction sites
Site rehabilitation • To minimize ongoing impacts after construction is completed:	• Excavate any contaminated soil • Remove and reshape the area. • Rake or loosen all compacted ground surfaces • Ensure that waste and surplus materials are removed from site • Contour sites to conform to the surrounding landscape and natural drainage. • Apply topsoil and re vegetate the site using local flora	• Applies to all disturbed areas and construction sites

I. Physical Cultural Resources Chance Find Procedure

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

The following procedures for identification, protection from theft, and treatment of discovered artifacts should be followed (and included in standard bidding documents where relevant).

Chance find procedures will be used as follows:

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

During project supervision, the PMU shall monitor the above regulations relating to the treatment of any chance find encountered are observed. Records will be reported to World Bank. Relevant findings will be recorded in World Bank Supervision Reports and Implementation Completion Reports will assess the overall effectiveness of the project's cultural property mitigation, management, and activities, as appropriate.

J. Grievance Report Form

GRIEVANCE REPORT FORM

Received by: _____

Date Received: _____

Reported by: _____

Database ID: _____

Responsible Agency: _____

Staff Name: _____

Location: _____

	Village	First Name, Last Name	Contact Details
Complainant(s)			
Suco Chief			

Acknowledged by: _____

Date Acknowledged: _____

Description of Concern:

.....

Category:

Compensation / Land Access / Inadequate Notification/ Disruption to Business or Property /
Property Damage / Irrigation / Boundary Dispute / Environmental Damage / Construction Activities /
Safety Risk /Traffic / Other

Proposed Resolution or Feedback:

.....

Complainant satisfied with process? Yes ☐ No ☐ Why not?.....

Complainant satisfied with outcome? Yes ☐ No ☐ Why not?

Print Name (Complainant): _____

Signed (Complainant): _____ Date: _____

Signed (Recipient): _____ Date: _____

Copied to: _____

K. Voluntary Land Donation Principles

To meet World Bank safeguard policies, the principles governing voluntary donation are as follows.

Voluntary land donation refers to a process by which an individual or communal owner agrees to provide land or property for project-related activities. In general, voluntary land contribution is undertaken without compensation. Voluntary contribution is an act of informed consent, made with the prior knowledge of other options available and their consequences, including the right not to contribute or transfer the land. It must be obtained without coercion or duress.

Voluntary land donation requires a declaration by the individual, household or group that they are donating either the land or the use of the land, for a specific purpose and a specific duration of time. It is noted that the project proposes permitting voluntary *use* of land but not *transfer of ownership*. This must include both women and men. It is provided freely and without compensation, and is acceptable only if the following safeguards are in place:

- 1) Full consultation with landowners and any non-titled affected people at the time of site selection (including the consultation with both women and men)
- 2) Voluntary donations should not severely affect the living standards of affected people based on the World Bank definition
- 3) Any voluntary donation will be confirmed through written record and verified by an independent third party such as customary tribunal, non-governmental organization (NGO) or legal authority
- 4) Adequate grievance redress mechanism should be in place.

If involuntary acquisition cannot be avoided, a Resettlement Action Plan is to be prepared according to the principles in the Resettlement Policy Framework.

Compensation Approach – Voluntary Land Use Consent

OP 4.12 defines “involuntary” as “actions that may be taken without the displaced person’s informed consent or power of choice”. If a clear choice exists, and if land is not transferred, there is no land acquisition (compulsory or otherwise). Notwithstanding this, MIPU is cognizant of the potential perceived or real risks associated with this approach. Accordingly, an Abbreviated Resettlement Action Plan (ARAP) will be prepared to provide a full explanation of the design process, consultation process and an explanation of the land ownership and land management arrangements in the project area. Documentation of consultation and the legal agreements between the land owners and the GoV will be appended to the ARAP.

An assessment of the key aspects of Voluntary Land Donation is included in the following table.

Key consideration	Application to this project
What the land is going to be used for, by whom	The land will be used by local communities for schools, water supplies, sanitation, dirt roads,

and for how long?	culverts and other infrastructure. Benefits are primarily to the local community.
Will they be deprived of the ownership or right to use the land? What does this really mean?	No transfer of land ownership will take place. Land use rights will however be agreed and transferred to the GoV for the project. Based on ongoing consultation the proposal will be refined to reduce impacts on land, structures and crops. MIPU will undertake consultation with affected communities during project implementation.
Do they have the right to refuse to donate the land?	Yes. If the community does not request (or want) the infrastructure, it would have every right to say so, and refuse to let the GoV to use the land.
Are there proposals which would allow other land to be used?	A key aspect of project implementation will be options assessment which will be undertaken in close consultation with the affected/beneficiary communities. Options will be appraised by both the relevant PMU and communities to develop and agree and preferred outcome.
What would the community need to do to donate the land, and what costs are involved?	The communities would sign an agreement allowing the relevant GoV Ministry to use the land for the purpose of the investment project. All costs would be borne by the project.
What effect may the donation have on their family? What can they do if they (or their family or heirs) want the land back?	Once the beneficiaries have agreed to the voluntary land donation arrangement, there would be no ability to get the land back for another purpose.

VOLUNTARY LAND DONATION (OR LAND LEASE¹⁴) FORM

This form or an equivalent document is to be used to record the consent of landowners who offer private land for a community good activity. The essentials of voluntary donation are that the donors have been freely consulted prior to the donation, were not pressured or coerced, that the donation will not affect a significant proportion (more than 10%) of their productive assets, and that they have the right to refuse and to lodge a complaint if they have a grievance about the process.

Consent Form for Voluntary Donation

I/We: _____ male household head _____ female household head,
and/or person(s) exercising customary rights over land described as (legal description, GPS
coordinates if available) _____
in

Village _____

Island _____

Province _____

hereby declare that I/we/the group are the owners/users of the land required for (description):

I/we are voluntarily donating the use of land and or/ land-based assets (land area, type of assets
/trees/crops etc) _____

for the purpose of: (specify activity)

We agree to this purpose from (date) _____ for as long as the purpose is served *or* until
(specify end date, typically the life expectancy of the facility) _____

I/we make this donation of My/Our own free will. I/We are waiving My/Our right to compensation
of any kind for the specified duration of the activity.

I/We affirm that we have been fully and freely consulted and informed about the activity prior to
agreement, have not been subject to any form of coercion, understand that I/we have the right to
refuse, and to seek redress for any grievance concerning this transaction.

Signed:

Male household head _____ /Female household head _____

Chief or Local Custom Authority _____

Representative of concerned Government Agency _____

Date:

¹⁴ If leased land is to be used, this form may be adapted to record the agreement of both lessor and lessee