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<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
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<td>AGO</td>
<td>Attorney General's Office</td>
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<td>AWP</td>
<td>Annual Work Plan</td>
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<td>BOQ</td>
<td>Bill of quantities</td>
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<td>CAC</td>
<td>Community Advisory Committee</td>
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<td>CAP</td>
<td>Corrective Action Plan</td>
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<td>CCP</td>
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<td>CEMA</td>
<td>Contractor’s environment monitoring agreement</td>
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<td>CEMP</td>
<td>Construction environmental management plan</td>
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<tr>
<td>CLO</td>
<td>Community Liaison Officer (of CPIU)</td>
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<td>COL</td>
<td>Commissioner of Lands</td>
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<tr>
<td>CPIU</td>
<td>Central Project Implementation Unit (of MID)</td>
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<tr>
<td>CPSEM</td>
<td>Community Protocols, Safety &amp; Environmental Management Guidelines</td>
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<tr>
<td>CSS</td>
<td>Country Safeguard System</td>
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<tr>
<td>DED</td>
<td>Detailed engineering design</td>
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<tr>
<td>DDR</td>
<td>Detailed design report</td>
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<tr>
<td>DMS</td>
<td>Detailed measurement survey</td>
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<tr>
<td>EA</td>
<td>Environmental assessment</td>
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<td>EIS</td>
<td>Environment impact statement</td>
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<td>ECD</td>
<td>Environment Conservation Division (of MECDM)</td>
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<td>GRM</td>
<td>Grievance Redress Mechanism</td>
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<td>IOL</td>
<td>Inventory of Losses</td>
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<tr>
<td>LAR</td>
<td>Land Acquisition and Resettlement</td>
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<td>LARP</td>
<td>Land Acquisition and Resettlement Plan</td>
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<tr>
<td>LBES</td>
<td>Labor Based Equipment Supported</td>
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<td>LTA</td>
<td>Land and Titles Act</td>
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<td>MBMC</td>
<td>Machine Based Maintenance Contracts</td>
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<tr>
<td>MECDM</td>
<td>Ministry of Environment, Climate Change, Disaster Management &amp; Meteorology</td>
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<td>MID</td>
<td>Ministry of Infrastructure Development</td>
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<td>MLHS</td>
<td>Ministry of Lands, Housing and Survey</td>
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<td>MOA</td>
<td>Memorandum of Agreement</td>
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<td>MOU</td>
<td>Memorandum of Understanding</td>
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<td>NTF</td>
<td>National Transport Fund</td>
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<td>NTP</td>
<td>National Transport Plan</td>
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<tr>
<td>PER</td>
<td>Public Environment Report</td>
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<tr>
<td>QPR</td>
<td>Quarterly progress report</td>
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</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
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<td>--------------</td>
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<tr>
<td>REOI</td>
<td>Request for Expression of Interest</td>
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<tr>
<td>ROW</td>
<td>Right-of-way</td>
<td></td>
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<tr>
<td>SIA</td>
<td>Social impact assessment</td>
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<td>SIG</td>
<td>Solomon Islands Government</td>
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<tr>
<td>SPS</td>
<td>Safeguard Policy Statement 2009 (of ADB)</td>
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</tr>
<tr>
<td>STI</td>
<td>Sexually transmitted infection</td>
<td></td>
</tr>
<tr>
<td>TOR</td>
<td>Terms of reference</td>
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<tr>
<td>TSDP</td>
<td>Transport Sector Development Project</td>
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Compensation. The payment given in cash and in kind at replacement cost for fixed assets and lost income.

Country safeguards systems. These refer to a country’s legal and institutional framework, consisting of its national, sub-national, or sector implementing institutions and relevant laws, regulations, rules, and procedures that pertain to the policy areas of environmental and social safeguards.

Contractors Environmental Monitoring Agreement. The agreement made between the Contractor, the Regional Manager/ Site Supervisor and the Safeguards Team to confirm locations and schedule for routine monitoring and reporting. The document is aimed at improving compliance with EMP implementation.

Construction Environmental Management Plan. The document prepared by the Contractor and approved by the CPIU Safeguards Team for Tier 2 and 3 activities.

Cut-off Date. This means the start or end date of the DMS. Anyone who occupies or encroaches into the boundaries defined as the project’s direct impact area after this date will not be compensated for affected assets and incomes.

Detailed Measurement Survey. This refers to the recording and measurement of the dimensions of fixed assets, which require to be taken as per the final, approved detailed engineering design. It consists of: (i) a physical survey to identify what physical assets are affected and the severity of impact; and (ii) a census of all affected households and/or businesses to gather information on, among others, the demographic and socio-economic status of the affected persons; the type of tenure they have over the property; economic activities undertaken and income derived from the fixed assets; and vulnerability to impoverishment and marginalization

Displaced Person. This means any person, who on account of land recovery/acquisition or restriction on land uses or access to legally designated parks and protected areas, loses fixed assets, access to assets, income, and sources of livelihood.

Economic Displacement. This refers to losses of land, assets, access to assets, income sources, or means of livelihoods as a result of (i) involuntary acquisition of land or (ii) involuntary restrictions on land use or access to legally designated parks and protected areas.

Environmental assessment. This means the process of study, investigation, and consultation that leads to preparation of the public environment report or the environmental impact statement.

Internally Displaced Persons. This means persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violation of human rights or natural or human made disasters and who have not crossed an internationally state recognized state border.
**Inventory of Losses.** This is the preliminary recording of fixed assets (land, residential and commercial structures, trees, utility facilities, household water wells, lamp posts, gates, fences), livelihood and sources of income and their owners and users which can be affected based on the basic or conceptual design. The IOL will be updated and made final after the DMS.

**Physical Displacement.** Means relocation, loss of residential land, or loss of shelter as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas.

**Tier 1 activities.** Mean community-based routine and preventive maintenance through labor-based equipment supported (LBES) contracts, mainly for roads, but can also include wharves.

**Tier 2 activities.** Mean machine-based maintenance contracts (MBMC) for roads, wharves, and airfields

**Tier 3 activities.** Mean the type of works that include major rehabilitation, reconstruction and/or construction of new roads, wharves, and airfields
EXECUTIVE SUMMARY

This Safeguards Procedure Manual (SPM) has been prepared by the Ministry of Infrastructure Development (MID) under the Asian Development Bank (ADB) Technical Assistance for Preparing the Sustainable Transport Infrastructure Improvement Program (STIIP). The purpose of the SPM is to guide MID in managing the environmental and social impacts and risks which could arise in the course of implementing the Solomon Islands National Transport Plan (NTP) priority activities.

NTP Priority Activities

The NTP envisions “an effective transport infrastructure and transport services to support sustained economic growth and social development in the Solomon Islands.” Consistent with this vision, the NTP prioritizes the rehabilitation and maintenance of existing transport infrastructure while providing strategically important new facilities. In descending order of importance, the NTP identifies the following types of infrastructure for financing:

(i) Road maintenance and rehabilitation
(ii) Wharf maintenance and repair
(iii) New wharves
(iv) Maritime navigation aids maintenance
(v) Airfield maintenance

The Central Project Implementation Unit (CPIU) of the MID categorizes these priority activities into three tiers:

(i) Tier 1 - community-based routine and preventive maintenance through Labor-based equipment supported (LBES) contracts, mainly for roads;

(ii) Tier 2 -machine-based maintenance contracts (MBMC) for roads, wharves, and airfields; and

(iii) Tier 3 - major rehabilitation, reconstruction and/or new construction contracts for roads, wharves, and airfields

Each of these tiers has their own environmental and social impacts, the management of which requires different instruments under the country safeguards system (CSS) and development partner requirements. The MID is required to ensure that its procedures meet both the legislative requirements of the Solomon Islands as well as the policy requirements of its development partners in Section 10.3 of the NTP. Further, it states that transport infrastructure projects should minimize social impacts as far as feasible. The MID should ensure that no Solomon Islander is unduly affected by maintenance and construction activities within the transport network without proper mitigation or compensation.
Safeguard Policies that Apply

The SPM elaborates on the existing procedures for avoiding, minimizing, and offsetting the environmental and social impacts. The three tiers of NTP activities collectively trigger the environment assessment (EA) and land acquisition and resettlement (LAR) safeguard policies of the development partners as well as CSS. The indigenous peoples policy will not apply, as the benefits will accrue to and the negative impacts absorbed by the mainstream or dominant Melanesian population who are the customary owners of land in the Solomon Islands.

Among the tiers, Tier 3 activities or major rehabilitation and new works are anticipated to have the most environmental and LAR impacts. However, the majority of NTP activities will be Tier 1 (LBES contracts) and Tier 2 (the MBMC works).

Environmental Impacts and Risks

Environmental impacts and risks of the first two tiers are considered low and can be managed with fairly simple tools that have been developed, and refined through use, under Transport Sector Development Project (TSDP). The impacts and risks will be site-specific that can be more readily mitigated and managed.

Under the CSS for environment, Tier 1 and the majority of Tier 2 are not listed as ‘prescribed activities’ and are therefore waived from requiring a development consent issued under the Environment Act 1988. Tier 3 works comprise prescribed activities that require application for development consent and some level of environmental assessment.

There will be some rehabilitation or reconstruction works which will comprise Tier 3 activities. As a result of more extensive works and the larger footprint, effects of these activities will require EA. The impacts of the Tier 3 activities (equivalent to category B under development partners’ requirements and the CSS) are also generally well understood and in most cases do not require more detailed impact assessment. These types of activities in compliance with the Environment Act generally require the preparation of an environmental assessment - public environment report (PER) – the level of which is more or less equivalent to an initial environmental examination under development partner’s requirements.

Impacts of NTP projects will be similar in extent and scale to the ongoing and recently completed transport projects. NTP will rarely include projects with significant environmental impacts (equivalent to category A), nevertheless the impact assessment will follow Tier 3 procedures.¹

Environment Procedures

The MID will follow a set of planning and implementation procedures for each activity which builds on the current procedures. The screening, assessment, planning, implementation and monitoring process involves a number of stages and parallel steps within each stage which are set out in the SPM for each tier of activity.

(i) All activities—irrespective of the tier—require screening and scoping to establish the planning and resourcing requirements for further work;

(ii) For Tier 1 activities, smaller scale effects can be addressed through environmental, health and safety guidelines and checklists (which have been developed by CPIU/MID) that are included in the civil works contract.

¹ Activities that would be categorized as category A under ADB’s Safeguard Policy Statement 2009 (SPS) are specifically excluded from the STIIP.
(iii) Training is provided to contractors on awareness and monitoring of contractors' compliance is undertaken. For Tier 2 activities, contractors are required to prepare a site-specific construction environmental management plan (CEMP). Tier 3 activities require EA and development consent [see (iv) below];

(iv) Tier 1 and 2 activities, while the procedure is abbreviated, still require significant engagement with the affected community for the contractor to establish and maintain a community advisory committee (CAC) for all activities. The CAC engages in the supervision and problem solving during the construction;

(v) Tier 3 activities are more complex and will be required to complete additional steps of conducting a feasibility study. A feasibility study includes technical, environmental, social as well as financial and economic assessments and analysis. Climate change and adaptation requirements are also included. A Climate Change Manual for Reducing Risk and Design of Mitigations has been prepared by MID under TSDP and will be utilized as an additional resource to support the procedures set out in this SPM.

LAR Impacts and Risks

Overall, the impacts of the activities under all tiers are expected to have positive effects to the residents and to overall economy in terms of mobility and greater access to socio-economic opportunities. Tiers 1 and 2 are expected to generate employment, more so in the first.

Tier 1 or LBES has no land acquisition, since the works will be performed on existing infrastructure. Where the activity will require entry or access to adjoining land, it will only do so temporarily and intermittently.

Tier 2 or MBMC has a similar impact and risk profile with the major difference being the duration of the contracts (shorter in duration and one-time works rather than regular or routine) and the labor vis-à-vis machinery content in the works. The works will be performed within the bounds of the existing infrastructure with no changes in the design. Again, access to adjoining land will be one-time and transient, usually to provide space for construction equipment and gravel mounds.

Both Tier 1 and Tier 2 may require restrictions on use of the adjoining land to preserve the pavement or for the safety of vehicles and pedestrians. Examples of restrictions are prohibitions against tree planting and erection of fences in the immediate proximity of the carriageway. In addition, the works under both tiers will necessitate removal of vegetation and less commonly, human built structures.

Tier 3 is anticipated to have low to significant LAR requirements since they involve the construction of transportation facilities where there is none or the expansion of a facility's footprint beyond its present boundaries. Rehabilitation and construction works may require temporary road closures and vehicular traffic diversion through alternate routes or detour roads.

The primary risk for Tier 3, and to a limited extent, Tier 2 activities springs from pre-existing disputes concerning the terms and conditions of lease/access agreements previously entered between the government and customary landowners hosting the facilities. The commencement of NTP activities can activate and intensify such disputes. There are also other risks which can substantially alter the proportion of works in the annual program in favour of Tier 3 projects with their higher land requirements.
Natural disasters such as cyclones, tsunamis, storm surges, and earthquakes can destroy or substantially weaken transport infrastructure such as wharves, bridges, and mountain and coastal roads. In the process of reconstruction, planners may decide not only to replace but also to expand, reinforce, and upgrade the new facility to meet more stringent building standards.

Climate change may require shifting existing infrastructure farther inland to mitigate sea level rise. This relocation of infrastructure can involve land acquisition.

Finally, maintenance deals with a dynamic reality. Facilities deteriorate over time. Delays for whatever reason can alter the scope of works. Infrastructure which at project identification is assessed to require MBMC, may, by the time of implementation, necessitate rehabilitation or reconstruction.

**LAR Procedures**

The LAR procedures in this SPM build upon the existing procedures developed by the CPIU under the TSDP. Across the different tiers, there are common steps taken such as scoping, information disclosure, consultation, establishment of a CAC, grievance redress, contract enforcement, and monitoring and assessment.

The major differences are in the length of the project cycles and the level of detail in the stages that the Tiers have in common. Since Tiers 1 and 2 deal with existing infrastructure whose right of way (ROW) is more or less defined and established (though not by any means uncontested), the project cycle is shortened. They do not undergo feasibility studies and appraisal, since the benefits of maintenance are not in dispute and the scope of works are relatively straightforward and defined. The design is not as complicated as new works and can be done using internal CPIU resources. Consequently, procurement is a one-time endeavour and is done for the selection of the civil works contractor.

No LAR plan (LARP) is prepared for Tier 1 and Tier 2 activities, as there is no land acquisition. In both tiers, only temporary access is required in adjoining land. Certain Tier 3 activities will require permanent land access or acquisition, and in these cases, will require LARPs.

The difference between Tier 1 and Tier 2 procedures are in three areas:

(i) The solicitation of Request of Expression of Interest (REOI) which is only done in Tier 1 as the works are labor intensive.

(ii) The organization of the CAC is recommended but not required in Tier 2 contracts which are less than six months in duration.

(iii) The signing of a Memorandum of Understanding (MOU) with customary land owners voluntarily granting the MID/CPIU and the private contractor access to land as staging area and for the conduct of works. This is done in non-NTF funded MBMC contracts for Tier 2 activities only.

Depending on their scope of work and the circumstances which prompted their implementation, certain Tier 3 activities may also have a truncated project cycle. Urgent emergency works implemented in the aftermath of a natural disaster do not have the luxury of time for extensive feasibility studies, appraisal and approval.

However, new works where there is no standing infrastructure require justification, especially if they will consume a substantial share of available resources. Rigorous examination of project alternatives and the generation of design options to consider and choose from are mandatory. Appraisal and approval are carefully done. Detailed design cannot be avoided.
New works span the entire project cycle. In these cases, land acquisition is not a question of possibility but of magnitude or severity.

The basic procedures across the different tiers are similar but in Tier 3 they iterate or repeat throughout the project cycle. As there is greater need for expertise which may not be available internally in the CPIU, procurement is done more than once. The procedures for Tier 3 account for the possibility of physical displacement and resettlement, however remote.

For land acquisition the MID/CPIU has the option of entering into a Memorandum of Agreement (MOA) with the land owners. The MOA has almost the same terms and conditions as the MOU which the MID/CPIU enters into with customary landowners for non-NTP MBMC projects. It grants Tier 3 activities voluntary access, i.e., with no cash compensation to land outside the road reserve or the ROW for expansion, staging area, and the conduct of works. Unlike the MOU, the MOA requires payment of compensation for any non-land assets affected by the works. More importantly, it is legally binding, as it goes through review and approval of the Attorney General’s Office (AGO) before taking effect.

If a MOA is refused by the landowners, the MID/CPIU will have to coordinate with the Commissioner of Lands for land acquisition under Part V of the Land and Titles Act. A LARP is prepared, approved by the MID, and disclosed for Tier 3 activities.
I. INTRODUCTION

1. This Safeguards Procedures Manual (SPM) has been prepared by the Ministry of Infrastructure Development (MID) to guide the performance of its duties with respect to environmental and social safeguards. The MID is the principal agency responsible for the implementation of the Solomon Islands’ National Transport Plan’s (NTP). The NTP’s Vision states that social development is one of the goals of an effective transport infrastructure and services. A principal attribute of social development is the participation of the community which will be promoted and supported by ethical, professional, and valued staff in the MID.²

2. The SPM addresses one of the mandates stated in Section 10.3 of the NTP, which is “to ensure that the current MID procedures meet both legislative requirements and development partner requirements.”

3. This manual is divided into four parts:
   (i) The first part discusses the country and transport sector context.
   (ii) The second part discusses the different priority activities and their environmental and social impacts and risks.
   (iii) The third part elaborates on development partner requirements.
   (iv) The fourth part includes the safeguards procedures to be applied to implementation of the NTP, divided into environmental and land acquisition safeguards. The tools are included as a series of annexes.

² The NTP’s Vision and Mission for the Transport Sector are as follows:
Vision: An effective transport infrastructure and transport services to support sustained economic growth and social development in the Solomon Islands. Mission: To enhance the prosperity and the participation of the community by providing an integrated, efficient, and affordable infrastructure and transport system supported by ethical, professional, and valued staff.
II. COUNTRY AND SECTOR CONTEXT

A. Country Context

4. The Solomon Islands is one of the largest countries in Melanesia with a land area of 28,000 square kilometres distributed across six large islands, dozens of smaller islands, and hundreds of islets and atolls. It has a population of approximately 528,000 with eighty-five percent (85%) living in the rural areas. The major economic activities of the population are the production or extraction of primary commodities in the agriculture, fishery, and forestry sectors. Poverty is widespread in the Solomon Islands, characterized not so much by hunger or destitution but the scarcity of income-earning opportunities and the absence or lack of basic social services.

5. The country suffers from poor connectivity due to the non-existence and poor quality of transport and other infrastructure.

6. In terms of maritime infrastructure, the Solomon Islands has made progress in recent years. Most of the country’s need for navigation aids have been met or being addressed. Since 2005, there has been an ongoing program of wharf construction. At the end of 2010, fourteen (14) wharves had been constructed, and nine were under rehabilitation with development partners’ assistance. The 2011 to 2015 program targeted a further 29 wharves for construction or rehabilitation. The major challenge is to improve land access to these wharves to facilitate the movement of passengers and cargoes.

7. The road network of the Solomon Islands has a total length of 1875 kilometres of which only six percent is sealed. The rest of the network consists of gravel, coral, or earth-surfaced roads. Two thirds or 1240 kilometres of the network are in the islands of Guadalcanal and Malaita. However, many areas in these two major islands have no road access at all, such as the Malaita east coast and the weather coast of Guadalcanal. Based on population per kilometre of road, the most poorly served provinces are Central, Isabel, Western, and Honiara on Guadalcanal. Whatever roads have been constructed in these places have also deteriorated over time due to the absence of maintenance.

8. The problem was compounded in early April 2014 when heavy rain caused damage and severe flooding across Guadalcanal, including Honiara, and parts of Isabel and Malaita provinces. The storm severely damaged roads, bridges, and water and sewerage systems, and destroyed agriculture output.

B. National Transport Plan and National Transport Fund

9. The 20-year National Transport Plan 2011–2030 (NTP) lays out the long term strategic outlook for the transport sector. It stands as the basis upon which funding of projects is prioritized and subsequently endorsed by the Cabinet. It covers all modes of transport and includes strategies for road maintenance and rehabilitation, rehabilitation of wharves and financial support for shipping services. The 20-year NTP was first adopted in 2006 and subsequently updated in 2010. The NTP has been formally approved by the Solomon Islands Government (SIG) and therefore represents government policy.

10. The NTP states that marine infrastructure constitutes the backbone of the national transport system. Marine infrastructure needs to be maintained and developed in order to enable ships and ferries to service the various islands.
11. The Solomon Islands’ “marine transport will be supported and augmented by a rehabilitated and maintainable road infrastructure and by air services for which the necessary infrastructure, and institutional and regulatory environments, need to be provided and maintained.” The NTP states that “…expenditure on transport sector infrastructure will be concentrated on the rehabilitation and maintenance of existing infrastructure, whilst providing strategically important new facilities” (emphasis added).

12. Using the prioritization criteria and weights established in the NTP resulted in the following key infrastructure intervention areas for purposes of funding:

   (i) Road maintenance and rehabilitation
   (ii) Wharf maintenance and repair
   (iii) New wharves
   (iv) Maritime navigation aids maintenance
   (v) Airfield maintenance

13. The funding mechanism for the NTP is the National Transport Fund (NTF). Created by the National Transport Fund Act of 2009, the NTF was established for the purposes of developing, maintaining, and managing transport infrastructure and services in the Solomon Islands.

14. The fund is managed by the NTF Board with representatives from the different SIG Ministries. Funds in the NTF are those paid by donor and development agencies and money from other sources in accordance with section 21 (1) of the Public Finance and Audit Act (Cap 120).

15. Among the activities that can be funded from the NTF include, “the routine, recurrent, and periodic maintenance and development of transport infrastructure” and “the installation of road markings, signs, traffic islands, median strips, and barriers.”

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III. NTP PRIORITY ACTIVITIES: ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

A. Types of Activities

16. The NTP emphasizes maintenance of existing road and marine facilities over the construction of new ones. The MID Central Project Implementation Unit (CPIU) classifies the priority activities of the NTP into three tiers:
   
   (i) Tier 1: Community-based routine and preventive maintenance through labor-based equipment supported (LBES) contracts, mainly for roads;
   
   (ii) Tier 2: Machine-based maintenance contracts (MBMC) for roads, wharves, and airfields; and
   
   (iii) Tier 3: Major rehabilitation, reconstruction and/or new construction contracts for roads, wharves, and airfields

17. The scopes of work for the three different tiers are found in Table 1 below.

<table>
<thead>
<tr>
<th>Tiers</th>
<th>Scope</th>
</tr>
</thead>
</table>
| Tier 1 | - the inspection and removal of obstructions;  
          - de-silting culverts and clearing inlets and outlets;  
          - clearing outlets, clearing side drains;  
          - catch-water and mitre drains;  
          - repair of shoulders and drains;  
          - repair of scour checks;  
          - clearing structures and waterways;  
          - filling and patching potholes and ruts on unsealed pavement;  
          - cutting grass and bush;  
          - reshaping road side drains and mitre drains;  
          - Improvement of stone scour checks and pipe culverts |
| Tier 2 | - pothole patching;  
          - fixing edge breaks;  
          - scarifying & ripping-up of deformed areas;  
          - rip, grade and replacement of all unsuitable base material;  
          - compacting base materials;  
          - removing loose materials;  
          - placement of graded gravel fill material approved to specifications by engineers;  
          - approved sealing protocols and applications whenever required;  
          - construction of line drainages |
| Tier 3 | - major rehabilitation and reconstruction of existing roads and bridges which have fallen into dis-repair over time and/or damaged by extreme weather events or other natural disasters including resurfacing or re-sheeting roads, repairing or replacing damaged large culverts, and reinforcement around bridge abutments to guard against scouring;  
          - major rehabilitation and reconstruction of existing wharves such as repairing slabs or piles;  
          - new construction contracts for roads and bridges such as building a low or high-level structure where vehicles currently ford the watercourse, shifting the road centerline widening of roads, bridges, and approaches to bridges, bridge deck replacement, raising the freeboard of bridges;  
          - new construction for wharves and airfields |
B. Environmental Impacts and Risks

18. A review of existing CPIU operations/NTP activities identifies the following potential areas of impact which may lead to environmental and social risks that require management and/or mitigation.

1. Damage to Natural Vegetation

19. Damage to vegetation growing alongside roads is generally minimized. Exceptions include the following areas:

(i) Where large machinery has been used to create mitre drains, excessive damage to vegetation may result.

(ii) Where a creek crossing structure cannot support the heavier machinery and the machinery needs to ford the waterway beside the bridge, there is vegetation loss. However the vegetation in these cases is mainly regrowth and not of significant natural value since the area is regularly used for this purpose.

(iii) Where a wharf requires replacement or upgrading, there is likely to be a need to disturb fringing mangroves so that a new embankment to the proposed wharf area can be built.

2. Erosion and Sedimentation

20. Coral rock gravel (coronus) used for road base and re-sheeting is stable when rolled and even fresh re-sheeting is largely resistant to heavy rain and requires no protection beyond properly engineered road drainage. However, where coral rock gravel is left unconsolidated or stockpiled it is vulnerable to erosion and subsequent release of fine sediments into waterways. Since road works are often on the coastal strip, sediment is readily transported to coral reefs. While this load is small compared to the ambient sediment transport by the annual rainfall, it is an additional impact which can be prevented or minimized.

21. Similarly, if an upgrading or new wharf is necessary, there is normally earthwork necessary to connect the shoreline to the wharf which is suspended on piles. In these cases there is potential for significant water pollution in the immediate vicinity of the causeway structures. Also, if coral rock is removed, the finer particles are suspended in seawater over an extended period and would require use of mitigating measures.

3. Quarries and Borrow Pits

22. The opening, use and closing of quarries and borrow pits have the potential for significant impacts. Since the majority of roads are unsealed and maintenance is an ongoing process, quarries are rarely closed and/or rehabilitated. The importance of environmental management in their initial siting, design, opening and use is critical.

23. Commonly sites are selected without regard to environmental factors and are designed and operated without environmental safeguards. The major impacts are to natural drainage and water quality. The initial excavations and formation of the operating pad of the quarry often results in spoil being pushed aside onto crops and into drainage lines. Quarries may be sited such that they drain towards creeks or onto agricultural and settled land. Stockpiles are rarely stabilized and quarry faces may be left at unstable slopes; dangers include failures of the quarry face and injury to operators and villagers. On this last aspect, the lack of separation of quarry operations and local people (especially children) also exposes them to physical danger.
4. Extraction of River Gravel

24. Coastal rivers are usually contained within a wide, incised channel cut into the alluvial soils of the narrow coastal plain. In many places, the erodible river bank is only protected by the armouring effect of grave/pebble beds. The river course flows and changes within the wider channel and its various courses are separated by depositional gravel beds. These gravel beds are used as a road making resource without proper consideration of the effects that removal of the river bank armour and the resulting void, will have on river flow characteristics and the potential for destabilization of river banks downstream. There are already examples of this impact occurring on the lower flat floodplains to the east of Honiara where bridge abutments have been completely undercut causing bridge collapses.

5. Site Stabilisation

25. Road works particularly for Tier 2 and 3 activities require day by day stabilisation of the site particularly during the rainy seasons of the Solomon Islands with very intense rainfall events leading to scour and unnecessary soil erosion and water contamination. Water quality and land contamination impacts from accidental fuel/oil spills or leaks from machinery or stores can also occur if storage and yard areas are not adequately protected by berms and/or perimeter drainage.

6. Occupational Health and Safety

25. All works on infrastructure facilities require a safe and healthy working environment for the workforce. Road works and wharf construction have significant risks for their workers and all sites need to ensure that all workers wear protective clothing headgear and footwear. Traffic Control procedures are also a basic requirement to reduce hazards to the general public but also the workforce.

7. Construction Camp Location and Community Risks

26. Siting of construction camps for Tier 2 and 3 activities is another significant management issue and requires the close cooperation of the local community and the need to establish and operate a community advisory committee (CAC). In many cases the workforce has skills which are not available in the local area so the workers may be from different regions and possibly from other countries. Protection of the workers and the local community from health risks arising from communicable diseases including sexually transmitted infections (STI) and HIV/AIDS normally use a preventive approach with community education officers assisted by Ministry of Health providing contractor and community training and also direct provision of condoms to further reduce risks.

8. Climate Change

26. Climate change incident risks to major coastal bridge, road and wharf facilities will continue to be rated as of high likelihood and high impact in South Pacific region in general. SIG institutional land use planning and catchment control is a contributing factor to the high likelihood and high impact rating.

27. A user friendly Climate Change Manual for Reducing Risk and Design of Mitigations has been prepared by MID under TSDP and will be utilized for the NTP projects and integrated into this SPM to mainly address the more complex activities Tier 3 activities.

28. The potential environmental impacts of the NTP activities are summarized in Table 2 below.
<table>
<thead>
<tr>
<th>Activities</th>
<th>Works</th>
<th>Environmental Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1 - labor based equipment support (LBES)</td>
<td>Vegetation clearing, including the removal of overhanging trees; cleaning of side and mitre drains; repair of shoulders and drains inside the existing alignment.</td>
<td>Removal of road-side vegetation is not expected to have significant environmental risks as vegetation is mainly secondary growth and/or plantation species. The main management issue is ensuring cleared vegetation is removed and disposed of using sustainable methods (i.e. windrowed along contours to reduce scour during dry season).</td>
</tr>
<tr>
<td>Tier 2 - machine based maintenance contracts (MBMC)</td>
<td>Construction limited to Inside the existing corridor</td>
<td>As above but larger volumes and stockpiles of cut vegetation will require placement in appropriate locations away from flowing water or windrowed along contours to reduce scour during the dry season.</td>
</tr>
<tr>
<td>Tier 3 - major rehabilitation and new works</td>
<td>Construction limited to Inside the existing corridor</td>
<td>Same as above</td>
</tr>
<tr>
<td>Road rehabilitation and new works</td>
<td>Potential expansion of ROW due to shifting of the centerline, construction of additional lanes, widening of existing ones for buffers, construction of side drains.</td>
<td>Environmental impacts similar to the above but the volumes may require specific periodic planning of the location of stockpiles due to their size. The construction of extra lanes will require significant volumes of fill material from either a nearby quarry or river deposits. Dependent on the volume of material required the risks are low for established quarries and medium to high for river deposits; activities would need to be covered in the scope of the site specific CEMP and CEMA. Removal and transfer of utility facilities involves potential for health safety impacts on workers and the general public. Close liaison is required with power utilities to ensure power lines are safely removed and replaced.</td>
</tr>
<tr>
<td>Bridges (mainly Tier 2 - MBMC activities)</td>
<td>Reinforcement of piers; river dredging; bridge protection (mainly Tier 2 MBMC activities) Deck Replacement (mainly Tier 2 MBMC activities) Bridge Expansion (mainly Tier 3 activities)</td>
<td>Environmental impacts of works associated with the need to gain access to, and work on, sections of bridge in the waterway. If coffer dam is required to divert flows it may be necessary to remove construction spoil and temporarily store away from the waterway. Stockpiles require stabilization by cut off drainage or berm construction; risks are low as the volumes of material to be stored will also be low. Temporary access to land for approaches and detour roads will require removal, placement and stabilization of spoil stockpiles for subsequent replacement. Traffic management with adequate safety signage will be also required to reduce hazards. Construction of approaches may require significant volumes of fill material from either a nearby quarry or if necessary from downstream river deposits of suitable material. Dependent on the volume of material required, risks are low for established quarries and medium to high for river deposits. These activities covered in the scope of the site specific CEMP and CEMA. Permanent change of land use and vegetation clearing around the abutments due to construction of retaining walls and ripraps. The environmental risks are similar to those of the temporary use of land discussed above and will depend on the degree of access required and the use of the waterway.</td>
</tr>
<tr>
<td>Wharves</td>
<td>Potential expansion to land adjacent to the existing wharves (Tier 3 activity)</td>
<td>Environmental impacts of wharf expansion and new wharf construction are considered to be low to medium risk dependent on extent of works. Land side and near shore maritime impacts include removal of fringing mangroves to improve access and provide fill material to build embankments. These activities would be subject to a site specific CEMP which could include mangrove replacement (dependent on the extent of removal) and environmental management for the development and operation of the quarry area. For large new wharf construction a complete marine baseline inventory of the near-shore and coastal zone affected by the proposal should be conducted to assess risks.</td>
</tr>
</tbody>
</table>
Activities | Works | Environmental Impacts
---|---|---
Airfields | Extension of runways and clearances to accommodate larger aircraft and meet International Civil Aviation Organization (ICAO) requirements (Tier 3) | Works are considered to have moderate to high level of impact depending on location, aircraft size, and flight frequency. Significant preconstruction, construction and operational risks are likely. Preconstruction mainly associated with LAR (discussed below). Construction is associated with large movements of fill material; increased truck movements creating dust, noise and amenity impacts. Stabilization of all imported and in-situ material is required to manage high potential for scour and soil erosion. All works would be subject to a site specific CEMP. Health and safety issues associated with traffic management and construction location also covered in CEMP. Operational impacts associated with the frequency of flights and increased traffic on acceptable noise envelope around the airfield. Frequency of flights to/from and around Solomon Islands is relatively low so risk is considered to be low. Installation of navigational aids on land has minimal risks associated with small work sites in traffic controlled locations.

Installation of navigational aids around the airfield premises (Tier 2) | 

C. LAR Impacts and Risks

29. **Impacts.** Section 10.3 of the NTP states that transport infrastructure projects should minimize social impacts as far as feasible. It states that the government is committed to ensuring that no Solomon Islander is unduly affected by maintenance and construction activities within the transport network without proper compensation.

30. Screening of the three tiers shows different impacts and risks and therefore, different safeguard measures are needed to mitigate them. Overall, the impacts of the activities under all tiers are expected to have positive effects to the residents and to overall economy in terms of mobility and greater access to socio-economic opportunities.

31. Tiers 1 and 2 are expected to generate employment, more so in the first. Tier 1 or LBES has no land acquisition, since the works will be performed on existing infrastructure with no changes in design. Where the project will require entry or access to adjoining land, it will only do so temporarily and intermittently.

32. Tier 2 or MBMC has a similar impact and risk profile with the major difference being the duration of the contracts (shorter in duration and one-time works rather than regular or routine) and the labour vis-à-vis machinery content in the works. The works will be performed within the bounds of the existing infrastructure with no changes in the design. Again, access to adjoining land will be one-time and transient, usually to provide space for construction equipment and gravel mounds.

33. Both Tier 1 and Tier 2 may require restrictions on use of the adjoining land to preserve the pavement or for the safety of vehicles and pedestrians. Examples of restrictions are prohibitions against tree planting and erection of fences in the immediate proximity of the carriageway. In addition, the works under both tiers will necessitate removal of vegetation and less commonly, human built structures.

34. Tier 3 is anticipated to have low to significant land requirements since they involve the construction of transportation facilities where there is none or the expansion of a facility’s footprint beyond its present boundaries. Rehabilitation and construction works may require temporary road closures and vehicular traffic diversion through alternate routes or detour roads.
35. **Risks.** The primary risk for Tier 3, and to a limited extent Tier 2 activities, springs from pre-existing disputes concerning the terms and conditions of lease/access agreements previously entered between the government and customary landowners hosting the facilities. The commencement of NTP activities on the infrastructures can activate and intensify such disputes. A case in point is that of the 28 airports in the country, of which 20 are under community or customary land ownership. Such disputes can delay the commencement or continuance of civil works. There are also other risks which can substantially alter the proportion of works in the annual program in favour of Tier 3 projects with their greater land requirements.

36. Natural disasters such as cyclones, tsunamis, storm surges, and earthquakes can destroy or substantially weaken transport infrastructure such as wharves, bridges, and mountain and coastal roads. In the process of reconstruction, planners may decide not only to replace but also to expand, reinforce, and upgrade the new facility to meet more stringent building standards. Climate change may require shifting existing infrastructure farther inland to mitigate sea level rise. This relocation of infrastructure can involve land acquisition.

37. Finally, maintenance deals with a dynamic reality. Facilities deteriorate over time. Delays for whatever reason can alter the scope of works. Infrastructure which at project identification is assessed to require MBMC, may, by the time of implementation, necessitate rehabilitation or reconstruction.

38. The LAR impacts are summarized in Table 3 below.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Works</th>
<th>LAR Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1 - LBES</td>
<td>Vegetation clearing, including the removal of overhanging trees; cleaning of side and mitre drains; repair of shoulders and drains.</td>
<td>Temporary and intermittent access to the land within and outside the ROW. Restriction of certain activities on land adjoining the roads such as tree planting. Removal of naturally growing and cultivated trees/plants used for subsistence and/or sale. Damage to drain covers installed by owners and residents to provide property access.</td>
</tr>
<tr>
<td>Tier 2 - MBMC</td>
<td>Construction limit</td>
<td>Temporary and intermittent access to the land within and outside the ROW. Removal of vegetation, naturally growing and cultivated trees and plants outside the ROW but within the construction limit. Restoration of land within construction limit to former uses.</td>
</tr>
<tr>
<td>Tier 3: Major rehabilitation and new works</td>
<td>Construction limit</td>
<td>Temporary access within and outside the ROW Removal of vegetation, naturally growing and cultivated trees and plants</td>
</tr>
<tr>
<td>Road rehabilitation and new works</td>
<td>Potential expansion of ROW due to shifting of the centerline, construction of additional lanes, widening of existing ones for buffers, construction of side drains.</td>
<td>Permanent access or use of the land for the carriageway, shoulders, side drains, buffer zones. Removal of naturally growing and cultivated trees/plants used for subsistence and/or sale. Removal and transfer of utility facilities. Possible removal and transfer of residential and business structures but this will not exceed 200 affected persons or loss of more than 10% of productive assets.</td>
</tr>
<tr>
<td>Bridges</td>
<td>Reinforcement of piers; river dredging; bridge protection Deck replacement Bridge Expansion</td>
<td>Temporary access to riverbanks and areas near the abutments to position equipment for temporary access to land for approaches and detour roads. Permanent access and use of land for the widened approaches (100-150 m before and after the bridge). Permanent change of land use and vegetation clearing around the abutments for construction of retaining walls.</td>
</tr>
<tr>
<td>Activities</td>
<td>Works</td>
<td>LAR Impacts</td>
</tr>
<tr>
<td>------------</td>
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<td>-------------</td>
</tr>
<tr>
<td>Wharves</td>
<td>Potential expansion to non-crown lands adjacent to the existing wharves</td>
<td>Permanent access/use of adjoining land for expansion of existing, or construction of new, facilities. Possible removal of naturally growing and cultivated trees and plants used for subsistence, medicinal, aesthetics and other amenities, and economic purposes. Possible removal and transfer of residential and business structures but this will not exceed 200 affected persons or loss of more than 10% of productive assets.</td>
</tr>
<tr>
<td>Airfields</td>
<td>Extension of runways and clearances to accommodate larger aircraft and meet International Civil Aviation Organization requirements</td>
<td>Permanent access and use of surrounding land. Possible removal of naturally growing and cultivated trees and plants used for subsistence and other economic purposes, medicinal, aesthetics and other amenities. Possible removal and transfer of residential and business structures but this will not exceed 200 affected persons and loss of 10% of productive assets.</td>
</tr>
</tbody>
</table>

### IV. KEY SAFEGUARD OBJECTIVES AND POLICY PRINCIPLES

39. In addition to the CSS, development partners also have safeguard requirements. Among them are the three key areas: environment, indigenous peoples, and land acquisition and resettlement (LAR).

#### A. Environment

40. The objectives of environmental safeguards are to ensure the environment soundness and sustainability of projects and to support the integration of environment. Environmental assessment and management is a key feature.

41. Environmental safeguard principles are triggered if a project is likely to have potential environmental risks and impacts. All activities are screened in accordance with these policy principles. Activities are assigned to one of the following four categories: (i) Category A - a proposed activity is classified as category A if it is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works; (ii) Category B - a proposed activity is classified as category B if its potential adverse environmental impacts are less adverse than those of category A activities. These impacts are site-specific, few if any of them are irreversible, and in most cases mitigation measures can be designed more readily than for category A activities; (iii) Category C - a proposed activity is classified as category C if it is likely to have minimal or no adverse environmental impacts.

42. In general terms, under the existing CSS, all development activities are subject to formal development consent procedures unless a proponent has applied for, and received, an exemption certificate from the Environment and Conservation Division (ECD). The Schedule to the Environment Act lists the ‘prescribed developments’ and the Environment Regulation establishes the procedures for undertaking the environmental assessment of those activities.

43. NTP activities that are listed in the Schedule to the Environment Act include: Activity 3 non-metallic industries - (d) extraction of aggregates stone or shingles; and Activity 9 public works sector - (b) infrastructure developments, (g) airport developments, and (k) ports and harbors.
B. Indigenous Peoples

44. The Indigenous Peoples (IP) safeguard principles are triggered if a program or project directly or indirectly affects any distinct and vulnerable groups of IP in terms of (i) their dignity, human rights, livelihood systems, or culture, and (ii) territories which such IP own and use, occupy, or claim as an ancestral domain or asset. For projects in the NTP, the IP policy is not triggered since the benefits will largely accrue to the mainstream Melanesian people who are also the customary owners of more than 80% of the lands in Solomon Islands. The mainstream Melanesian population collectively cannot be considered vulnerable.

45. In addition, the activities under the three different tiers will not negatively affect the dignity, human rights, livelihood systems, or the cultures of Melanesians and other ethnic groups. None of the proposed works under the NTP would fall within the three types of activities specified under the Asian Development Bank (ADB) SPS which require consent of IP.  

C. Land Acquisition and Resettlement

46. LAR will certainly happen for transport infrastructure works, especially for Tier 3 activities. Hence, LAR policy principles will apply. All LAR principles of the SPS are triggered for activities involving new works or major rehabilitation works or expansion of an existing facility beyond its present footprint or boundaries.

47. Activities are classified as category A for LAR if they physically or economically displace 200 people or more with major impacts i.e. relocation or the loss of 10% or more of productive assets. If activities affect less than this number and cause losses of productive assets below the threshold, they are classified as category B.

48. Activities with no LAR impacts are classified as category C. Tier 1 and 2 activities have no land acquisition and are categorized as C. Tiers 1 and 2 activities will only undergo screening and monitoring, but do not require detailed LAR planning.

49. While all LAR policy principles are triggered, most Tier 3 activities are category B. The extent of land taking is likely to be minor relative to the total land area, and physical displacement is unlikely to happen because of the low population density of much of the Solomon Islands. If residential or business structures need to be removed, they are shifted or reconstructed at a proximate distance to the original site. The scenario where Tier 3 activities will be of Category A is when new works are done in urban centres or in areas with a higher population density.

V.

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4 These activities include: (i) commercial development of the cultural resources of the IP; (ii) physical displacement of IP from traditional or customary lands; (iii) commercial development of the natural resources within customary lands under use that would impact the livelihoods or the cultural, ceremonial, or spiritual uses that define the identity and community of IP.
V. PROJECT CYCLE

A. Description

50. The typical project cycle has five stages: (i) project identification; (ii) feasibility studies; (iii) appraisal and approval; (iv) detailed design; (v) civil works; and (vi) project completion.

51. The first stage is project identification. At project identification, the rationale for a project is established by the developer or proponent. Scoping is done to assess current conditions and sketch possible project components and establish the requirements for further work (this will include identifying the level of safeguards assessment and management required).

52. The second stage is feasibility study or project planning. As the name suggests, this phase looks at the viability of the project from various perspectives: technical, economic, financial, social, environmental, and in sensitive projects, the governance/political economic considerations. The objective of the feasibility study is to establish the development case for the project, including its social and environmental acceptability. The output of the feasibility study is a basic design. As required the detailed environmental and social impact studies and resettlement planning are done at this stage.

53. The third stage is appraisal and approval. The project is evaluated for its technical economic feasibility, social acceptability, and environmental and social impacts and mitigation. The requisite project approvals and environmental consents are secured from the regulatory agencies. If appraisal is positive, approval for project implementation is given.

54. The fourth stage is the detailed engineering design (DED). At this stage, the components, locations and boundaries of the project are, to a large extent, defined. The output is a detailed design report (DDR). Environmental and social mitigation measures produced during the feasibility studies stage are updated based on the DED.

55. The fifth stage is project implementation. Prior to the civil works commencing for some Tier 2 activities and all Tier 3 activities the LARP must have been implemented and the construction environmental management plan (CEMP)—based on the approved PER and any development consent conditions—approved by the CPIU. LARP implementation ramps up after approval of the DDR and continues on before the start of civil works. If the project involves physical displacement and resettlement, the implementation of the livelihood restoration measures can extend after civil works have been completed.

56. The sixth stage is project completion. Normally, this is the time when the facility built or maintained is inspected to ensure compliance with contractual obligations. A punch list containing items which the contractor has to remedy is produced. There is typically a one-year warranty period from the time of inspection where the contractor is obliged to remedy at no cost to the principal any defects which emerge during the facility’s use or operation. Any unresolved grievance or safeguard issues are addressed at the project completion stage, e.g., unpaid construction damages.

B. Processes in the Project Cycle Common to Environmental and Social Safeguards

57. Across the project cycle, there are processes which are common to environmental and social safeguards. They also repeat throughout the project cycle. These are the following:

(i) screening;
(ii) disclosure of information;
(iii) meaningful consultation (including establishment of the CAC) and participation in project planning, design, and implementation; and
(iv) the grievance redress mechanism.

1. Information Disclosure

58. The quantity and type of information disclosed at the different stages vary. However, they must be delivered in a timely manner, relevant to the audience or recipient, adequate, and accurate. The disclosure of information follows an overall communication and consultation plan (CCP). The CCP is a product of stakeholder analysis, which examines the attitudes towards the project and the interests which inform those attitudes. The plan elaborates on the overall communication strategy for the project as well as the specific ways to communicate to the different stakeholders. The outline of a CCP is found in Annex 1.

59. Project identification. At the project identification stage, project impacts are generic and lack specification or detail. The project discloses plans to undertake the project on site but since the exact scope of works or the design has yet to be decided, any discussion of environmental and social safeguard impacts are couched in general terms.

60. Feasibility studies. At the feasibility studies stage, intensive and extensive consultations commence. These consultations are venues to provide more information about the project. The residents living on or near the site learn more about the project, the potential negative impacts as well as benefits. At this stage, the level of participation of the project affected community moves to a new level. From a recipient of information, the project affected people also become a source or supplier of information, perceptions, preferences, emotions, and judgments which the feasibility studies team uses to come up with an initial or basic design.

61. Appraisal and approval. At the beginning of project appraisal, the outputs of the feasibility studies--including the social and environmental studies and mitigation plans--are disclosed through various means accessible and in a language understandable to the project affected people and the general public. There is normally a mandatory period for feedback on these documents (one month in current CSS for public disclosure).

62. Detailed engineering design. At the DED stage, the project has been appraised and approved to proceed. The issue becomes not "if" but "when" the project will be implemented. Information disclosed is more technical in nature. There is now reasonable certitude regarding the project’s geographical location and boundaries, the scope, and the type and magnitude of negative impacts to the people on the project site and the surrounding areas. Based on the latest technical information, the mitigation plans produced during the feasibility studies are updated and disclosed. Implementation of these plans begins towards the end of detailed design.

63. Civil works. At the civil works phase, disclosure of information continues by the project implementation unit and the contractor. The information concerns scheduling and implementation of the mitigation plans by the contractor. The project affected people participate in monitoring, receiving and providing information on the implementation of the mitigation plans, their successes and gaps.

64. Completion. After the end of civil works, performance audits and outcome evaluations are undertaken, and the results of these should be disclosed to different people. Lessons are gathered, publicized, and fed forward to the next project.
2. Consultation

65. Consultation requirements are common to environmental and social safeguards and to all stages of the project cycle. The conduct of the consultation is guided by the CCP. As with information disclosure, it should begin as early as possible during project preparation and should be conducted on an ongoing basis throughout the project cycle. The major difference between the consultation and information disclosure is that in the consultation the people are not simple recipients of information but provide their own knowledge to the project implementers to feed into the project design. This local knowledge consists not only of data or information but also perceptions, preferences, feelings, and judgments about the project. Consultations are done in small groups, community assemblies, public meetings, or one-on-one discussions. The choice of method depends on the organization of the community and existing power relations.

66. Due to differences in status, power, and wealth, it is good practice to do separate consultations for women and men, youth and the adults, and the poor and affluent members of the community. For both formal and informal leaders, the best way to solicit their views is through key informant interviews. However, it is done, the consultation must be undertaken in an atmosphere free of intimidation and coercion. In practical terms, this means that contrasting views must be given time to be aired, even those opposed to the project. Differing inputs allow for better decision-making by both project implementers and affected people in design, mitigation measures, sharing of development benefits, appraisal, and implementation.

3. Grievance Redress Mechanism

67. A grievance redress mechanism (GRM) should be established early in project preparation, preferably before feasibility studies. A good GRM has the following characteristics:

- It is simple.
- It minimizes conflicts of interest.
- It protects confidentiality, if so requested by the aggrieved party or complainant.
- It uses language understandable to the project affected people and communicates technical information in lay person’s terms.
- It is cost-effective, i.e. complainant is not made to shoulder costs or incur costs to access.
- It is gender sensitive and responsive, i.e. there is a female contact person or members of the grievance redress committee.
- It communicates resolutions to the parties involved and the manner whereby decisions are reached is explained and publicized.

68. The GRM begins at the community level, with possibility of appeal to higher authorities if the aggrieved party is not satisfied. The GRM is open to judicial appeal and review. However, it is the last resort. The GRM uses alternative dispute resolution strategies to address the grievance. The GRM established by MID is included as Annex 2.

C. Application of the Project Cycle to the Three Tiers

69. The project cycle commences the moment the three-year rolling program is approved by the NTF Board. The three-year rolling program is prepared by the CPIU, which is forwarded to the CPIU Manager and the Permanent Secretary (PS) of MID. The PS then submits the program to the NTF Board.

70. The full project cycle applies to Tier 3 activities, specifically for construction of new transport infrastructure. All three tiers require the establishment of CACs.
VI. TIER 1 COMBINED ENVIRONMENTAL AND LAR PROCEDURES

71. Tier 1 or LBES activities are community-based routine maintenance usually implemented for a period of up to three years. LBES activities are undertaken within the road reserve and adjoining land. Tier 1 has 12 steps and undergoes four of five of the stages in the project cycle.

72. There is no land acquisition in LBES contracts. The activities require only temporary and intermittent access into adjoining land, which can be crown, bush, freehold, or customary land. Routine maintenance may entail restrictions to certain uses of adjoining land such as prohibitions of planting certain trees or gardening within a certain distance from the edge of the road.

73. Contractors are usually community members who are paid to remove vegetation or obstructions in the frontage of their properties. They keep the salvaged materials. Contractors have a provision in their contract called construction damage to compensate for any injury to property in the course of civil works.

74. The environmental safeguards and LAR procedure for Tier 1 is set out below. The environmental procedure is also mapped as Figure 1.

Stage 1 - Activity Identification

75. Step 1: Scoping. The Tier 1 procedure starts with identification of the activity from the Annual Work Plan (AWP) based on the rolling three year action plan arising from the NTP criteria. Scoping also happens in the project identification stage. It is a data gathering exercise in the proposed project site(s). The planning design engineer and safeguards officer travel to the site(s) and assess project location(s), proposed works/activities, community boundaries and convenient clustering of possible CACs. The engineers assess the condition of the facility and identify the extent of works. For safeguards, in the case of a new sub-project(s), scoping is where the first contact with the affected community is made, project information is initially shared, the first consultations are held, and the project’s environmental and social impacts are identified. The safeguards team also advertises an REOI, inviting community members to organize and bid for LBES maintenance contracts. This is done in a community meeting which the safeguards team organizes with the leaders.

76. Specific to LAR, the safeguards team identifies the land owners, the boundaries of their properties, and non-land assets which can be affected by the project. The identification of landowners and boundaries of land is needed for determining the clustering of CACs, the organization of which will be done by the civil works contractor. The safeguards people produce a scoping report. The report lists the owners, marks out the boundaries of the land in a sketch map, and lists down non-land assets which may be removed during civil works.

Stage 2 - Appraisal & Approval

77. Step 2: Screening. MID CPIU Environmental Officer with input from Engineering Job Manager prepares individual preliminary project description or a generic project description for batch of sub projects in similar locations and submit to ECD/MEMCD requesting an exemption from development consent procedures. Screening is carried out by ECD/MEMCD to assess the level of assessment required. Normally for LBES it would always be Tier 1 and for MBMC Tier 2. ECD/MEMCD will usually grant the exemption by letter for Tier 1 and 2 projects.
78. **Step 3: Pre-bid training.** This activity is very busy with all parts of CPIU involved for organization and implementation of pre-bid training for potential who could be contractors or community groups. The safeguards team Community Liaison Officer (CLO) goes to the site(s) for new projects. Contractor training for bidders is required for all new sub-project bids, and the community is alerted to training session before bidding.

79. **Training sessions.** The training session for bidders is conducted. The Community Protocols, Safety and Environmental Management (CPSEM) Guideline and Environmental Checklist are part of the training package (refer to Annex 3). The community protocols will include items related to LAR such as permission to enter land when the owner and the worker are two different parties, the ownership of salvaged materials, and disposal of unusable materials.

80. **Birth Certificate.** A birth certificate is issued by the Safeguards Manager. The birth certificate verifies that in the case of new LBES projects that the community has been made aware of the project and that attending training for new contractors is a bidding requirement.

**Stage 3 - Procurement**

81. **Step 4: Production and release of the tender documents.** Based on the scoping, the design engineers determine the specifications or scope of works for the project and produce a project description. They produce a bill of quantities (BOQ) which are then submitted to the procurement division for incorporation into the bid or tender documents. The procurement team produces the tender documents. These tender documents contain the safeguards or safeguards-related requirements which contractors are obliged to include in their bids. For LBES, these safeguards requirements are as follows:

   (i) Item in the BOQ for the establishment and operation of the CACs (Annex 4)
   (ii) Attendance in training-of-trainers for CAC operations
   (iii) Provisional sum for any damages or injury to property in the course of works
   (iv) Grievance Redress Mechanism which is operated by CAC (Annex 4)

82. **Review and sign-Off.** The procurement manager then sends the safeguards-related sections in the tender documents to the safeguards manager for review and sign-off. When all safeguard-related conditions are present, the safeguards manager signs off on the release of the tender documents to bidders.

83. Bids are then evaluated and awarded. A notice of award is issued to the winning bidder.

**Stage 4 - Post Contract Award and Commencement of Works**

84. **Step 5: Commitment signing and establishment of CAC.** The Contractor signs commitment to implement CPSEM Guideline which is the basis of monitoring. Contractor must establish CAC immediately after mobilization (as per Annex 3 and Annex 4).

85. **Establishment of the CAC.** The Contractor assisted by safeguards team if required commences the organization of the CAC with the selection of representatives and orientation on the purpose and functions of the CAC as spelled out in the approved MID guidelines (Annex 4.)

86. **Establishment of the GRM.** The Contractor assisted by the Safeguards team establishes the project’s grievance mechanism, which at the project site, is anchored on the CACs. The GRM is publicised in the project area.
87. **Step 6: Negotiations of work agreements.** Contractor negotiates work agreements with members of community and all agreements (salary rates and basis of sub–contracts for lump sums) must be written and recorded in CAC Minutes.

88. **Step 7: Confirmation that CAC is operating.** The Site Supervisor/ Regional Manager confirms establishment of CAC and work agreements in minutes provided by Contractor. A Notice to Proceed for works is issued.

90 **Step 8: Commencement of civil works.** Both Contractor and the CAC(s) begin routine works.

89. **Step 9: Monitoring.** The Site Supervisor is responsible for contract conditions and must check Contractor monthly reports with Checklist from CPSEM guideline. Monitoring incidents of safety, health and environment are reported to Safeguards officer for action. Random compliance audit for quality assurance is undertaken by safeguards team based on other training or travelling commitments.

90. The safeguards team produces monitoring and incident reports, and the safeguards manager discusses these with the Regional and Job Managers and Site Supervisors. Reports are collated and entered into the database. The monitoring reports are summarized and incorporated in the periodic reports that the CPIU produces for the MID Permanent Secretary, the NTF Board, and the development partners.

91. The monitoring includes the handling and resolution of grievances. Some of these grievances may involve temporary entry into land and injury to property, which the contractor is required to compensate.

**Stage 5 - Contract Enforcement and Activity Completion**

92. **Step 10: Imposition of sanctions.** The Site Supervisor is responsible for checking monthly reports for any incidents that have occurred and enforcing the requirements of CPSEM. A Safeguards Officer carries out random compliance audits which are integrated with the training of other CACs within reasonable proximity to the site location.

93. **Step 11: Verification of job completion.** Job completion is confirmed by the Site Supervisor/ Regional manager with input from the Safeguards Team that verifies that the CPSEM responsibilities have been completed.

94. **Step 12: Issuance of job completion certification.** The Site supervisor notifies the procurement unit that the Job Completion Certificate may be issued.
Figure 1 - Tier 1 LBES Environmental Procedures Showing Main Stakeholders Roles
VII. TIER 2 PROCEDURES

95. Tier 2 or MBMC activities consist of one-time repairs on the existing transport infrastructure, with contracts lasting as short as three months. The repairs are done on the carriageway and within the road reserve on existing wharves and airfields. Tier 2 has slightly different processes for environment and LAR. While LAR processes are almost the same for Tier 1 and 2 activities, the environment procedures for Tier 2 are more elaborate.

96. Tiers 1 and 2 activities do not go through feasibility study because the works are simple and straightforward, and the environmental and social risks are minor to negligible. Tier 2 activities are different in a number of ways to Tier 1.

- There tends to be a significant majority of activities which are in urban or peri-urban locations.
- There are significantly qualified contractors available than is the case for Tier 1 LBES.
- Generally as the activities require the use of machinery, there is much less scope for local community groups to be involved as significant start-up capital is necessary.
- The type of work requires a more experienced contractor with more knowledge of the use of the range of equipment required.
- The activities will normally require construction materials to be sourced from outside the immediate area compared to Tier 1 which has a lower need for sourcing which is not available locally.
- The amount of training for experienced contractors for Tier 2 is less even though there have been previous contractors who have performed poorly. New contractors or those under-capitalized will still require training commensurate with their past performance or their lack of experience.

97. Like Tier 1, the establishment and operation of the CAC is required for Tier 2.

A. Environment

98. The environment process for Tier 2 activities is shown in Figure 2 and described in the following paragraphs.

Stage 1 - Project Identification

99. Step 1: Scoping. The Tier 2 procedure starts with identification of the activity from the AWP based on the rolling three year action plan arising from the NTP criteria as in Tier 1.

100. Scoping happens in the project identification stage. It is a data gathering exercise in the proposed project site(s). The planning design engineer and safeguards officer travel to the site(s) and assess project location(s), proposed works/activities, community boundaries and convenient clustering of possible CACs. The engineers assess the condition of the facility and identify the extent of works. For safeguards, in the case of a new activity particularly in rural locations, scoping is where the first contact with the affected community is made, project information is initially shared, the first consultations are held, and the project’s environmental and social impacts are identified.
Stage 2 - Appraisal & Approval

101. **Step 2: Screening.** MID CPIU Safeguards Team Environment Officer with input from Engineering Job Manager prepares individual preliminary project description or a generic project description for batch of sub projects in similar locations and submit to ECD/MEMCD requesting an exemption from development consent procedures. Screening is carried out by ECD/MEMCD to assess the level of assessment required. Normally for LBES it would always be Tier 1 and for Tier 2.

102. **Step 3: Issue of exemption from development consent.** ECD/MEMCD considers the application and will normally grant the extension grant the exemption by letter for Tier 1 and 2 projects.

Stage 3 - Procurement

103. **Step 4: Production of the tender documents.** Based on the scoping, the design engineers determine the specifications or scope of works for the project and produce a final project description. They produce a bill of quantities (BOQ) which are then submitted to the procurement division for incorporation into the bid or tender documents. The procurement team produces the tender documents. These tender documents contain the safeguards or safeguards-related requirements which contractors will have to comply or produce.

104. For MBMC, these safeguards requirements are as follows:

   (i) Item in the BOQ for the establishment and operation of the CACs (see Annex 4)
   (ii) Provisional sum for any damages or injury to property in the course of works
   (iii) GRM which is operated by CAC (see CAC guidelines - Annex 4)
   (iv) Pre-bid meeting session for bidders is conducted - the MBMC Guideline (see Annex 5) is explained to bidders by a CPIU safeguards officer;
   (v) Birth Certificate is issued by safeguards manager - the birth certificate verifies that in the case of all MBMC projects that the community has been made aware of the project and the requirement for contractors to prepare a CEMP;
   (vi) The procurement manager then sends the safeguards-related sections in the tender documents to the safeguards manager for review and sign-off. When all safeguard-related conditions are present, the safeguards manager signs off on the release of the tender documents to bidders; and
   (vii) Bids are evaluated and awarded.

Stage 4 - Implementation

105. **Step 5: Training for contractors.** Training of contractors is needed for new contractors before the contractor mobilizes to the site in order to ensure that the contractor understands all the requirements of the MBMC Guideline (Annex 5), especially the requirement for the CEMP. Training will focus on the MBMC Guideline and Sourcing of Construction Materials Guideline (Annex 6).

106. **Step 6: Establishment of CAC.** The Contractor must establish CAC immediately after mobilization if contract period is six months or longer. If Contractor wishes to employ or sub-contract to community members, Site Supervisor/Regional manager must confirm establishment of CAC and employment/sub-contract agreements have been recorded in minutes of the CAC. Agreements on sourcing of construction materials from the community must also be recorded in the minutes.
107. **Step 7: Preparation and approval of CEMP.** The Contractor is required to prepare a CEMP and Contractor Environmental Management Agreement (CEMA) (see Annex 7) which is basis of works and monitoring. The CEMP may be prepared by Contractor or a consultant employed by the Contractor. Once completed it is sent to CPIU Safeguards Team for approval. The CPIU Safeguards Team reviews and visits the field with the Contractor to agree on potential issues and locations. Contractor then signs the CEMA prepared by the safeguards team confirming the field visit and agreements and approves the CEMP.

108. **Step 8: Notice to proceed.** The Site Supervisor / Regional Manager can then Issues Notice to Proceed to works and both Contractor and CAC begin their activities as per the approved CEMP.

109. **Step 9: Monitoring.** The Contractor reports on a monthly basis using the checklist template from the MBMC Guideline (Annex 5). Routine Monitoring of safety, health & environment are reported in the monthly report. If there is an issue it is reported to Safeguards officer for action. CAC can provide third party oversight of contractor on quality issues and also report incidents to Safeguards Team. Grievance Redress Mechanism can be used if issues are not resolved in reasonable time period.

110. **Step 10: Quality control and monitoring.** Undertaken jointly by the CPIU and the contractor. The Contractor’s designated safety, health and environmental officer will complete the Monthly CEMP Update Checklist (included in Annex 5) which is integrated into the Contractor’s Monthly Report, this is checked by the Site Supervisor. The Monthly Reports are submitted to the CPIU.

111. **Step 11: Quality assurance monitoring.** Routine compliance audits for quality assurance to verify proper compliance by the Contractor with the CEMP is to be carried out by the Safeguards Environmental officer at least every two months of the contract period. The findings of these audits are incorporated into the Quarterly Progress Reports (QPR) prepared by the CPIU and submitted to MID and development partners.

**Stage 5 - Contract Enforcement**

112. **Step 12: Sanctions.** The primary responsibility for enforcement of MBMC Guideline and CEMP is with Site Supervisor/Regional Manager as this person is on site and has daily contact with the Contractor and works (contract conditions). The basis of enforcement is “two strikes and you are out”; if an incident occurs that breaches the MBMC Guideline or approved CEMP, the contractor is given two warnings to remedy or mitigate before stop work order is issued by the CPIU Regional Manager with verification from the Safeguards team.

113. **Step 13: Verification of job completion.** Job completion is confirmed by Site Supervisor/ Regional manager with input from the Safeguards Team that verifies that the CEMP responsibilities have been completed.

114. **Step 14: Job completion.** The Site Supervisor notifies the procurement specialist that the Job Completion Certificate may be issued.
Figure 2 - Tier 2: MBMC Environmental Procedures Showing Main Stakeholder Roles

Activity 1: Selection of Sub-Projects Screening Criteria
- Final Annual Work Plan

Activity 2: Project Approval
- Apply for Exception from Development Consent
- Environmental Control Confirmed

Activity 3: Project Approval
- Apply for Exception from Development Consent

Activity 4: Pre-Feasibility
- Initial Community Engagement
- Establish community interfaces
- Unit Certificate issued

Activity 5: Environmental Project
- Preliminary Project Review

Activity 6: Building Design
- MBMC Assessment

Activity 7: Contract Administration
- Contractor / Consultant
- CEMP
- CEMP Revisions

Activity 8: Consultant
- CEMP
- CEMP Revisions

Activity 9: Monitoring
- Contractor
- CEMP
- CEMP Revisions

Activity 10: Monitoring
- Site Supervisor / Consultant
- Site Monitoring
- Monthly Monitoring
- CEMP

Activity 11: Environmental
- Site Supervisor / Consultant
- Site Monitoring
- Monthly Monitoring
- CEMP

Activity 12: Enforcement
- CEMP
- CEMP Revisions

Activity 13: Site Compliance
- Confirmed

Activity 14: Site Compliance
- Confirmed

Stages of Project Cycle:
- Feasibility Studies
- Approval & Assessment
- Detailed Design & Construction
- Site Works Implementation
- Monitoring & Enforcement
B. Land Acquisition and Resettlement

115. For Tier 2 activities, there is no land acquisition; the projects require only temporary and one-time access into adjoining land, which can be crown, bush, freehold, or customary land. The land is used to park equipment and to position construction materials such as gravel.

116. Because of the larger capital requirements of MBMC contracts, contractors come from outside the community but may choose to recruit workers among the residents. Similar to LBES, contractors have a provision in their contract called construction damage to compensate for any injury to property in the course of civil works.

117. After completion of repairs under an MBMC contract, the road section can be placed under an LBES contract for routine maintenance.

118. Tier 2 LAR procedures are almost the same as those of Tier 1. The only differences are the establishment of CAC and the Memorandum of Understanding (MOU) that the CPIU enters into with the community.

119. Internal MID/CPIU guidelines state that if the project duration is less than six months, it is advisable for the contractor to establish a CAC but not mandatory.

120. The second difference is that the CPIU enters into an MOU with the customary landowners for MBMC contracts. This is usually done after appraisal and approval but before the contractor mobilizes in the area. In the MOU, the landowners agree to voluntarily grant without cash compensation to the MID and the private contractor access and use of their land as staging area for equipment and for the conduct of civil works. An example of an MBMC contract with MOU is the St. Martin Road. However, it is funded by the SIG not by the NTF (Annex 8).
VIII. TIER 3 PROCEDURES

121. Tier 3 consists of major rehabilitation of existing facilities or new works. New works are anticipated to have the most environmental and LAR impacts, especially if such works involve construction of a new facility where there is presently none or an expansion of an existing facility beyond its present boundaries.

A. Environment

122. Only Tier 3 activities require formal EA as part of the process of obtaining development consent. The procedures are fully laid out in Annex 9 and are based on a set of guidelines prepared to supplement the ECD’s existing *Environmental Impact Assessment Guidelines 2010* for implementing EA in Solomon Islands. The environmental safeguards procedures for Tier 3 are mapped out for reference in Figure 3 which also shows the role of MID CPIU and the other main stakeholders involved in the process. Tier 3 has 23 steps for the environmental safeguard process over the various phases of the project cycle, including the feasibility study stage.

**Stage 1 - Project Identification Planning and Scoping**

123. **Step 1: Project identification and planning.** Tier 3 activities are identified by reference and prioritization from the NTP as part of three year rolling action plan which is then recommended for the annual work plan as a feasibility study. The study may only take 2-3 months to complete but implementation after approval normally occurs in the following year’s work plan. Criteria used for selecting the activities are a combination of technical, environmental, social and political factors but mainly based on those set out in the NTP.

**Stage 2 - Feasibility Studies**

124. **Step 2: Initial community consultation.** The feasibility study requires an assessment of technical, environmental, social and economic studies. The initial community consultation gives the community as much information as is available and also prepares a tentative program and schedule for community inputs as part of the study.

125. **Step 3: Prepare and submit the project description.** The CPIU prepares a project description as accurately as possible using the preliminary design information available. It should also provide information on the characteristics of the proposed development as described in the proposal application, (e.g. size, scale, type of infrastructure), location factors of the proposed facility (e.g. project is located in or adjacent to any protected or sensitive area), and the characteristics of the significant potential impacts (e.g. size of area affected, number and characteristics of any affected community or people, whether impacts will be temporary or permanent, etc).

126. **Step 4: Screening.** After the project description has been prepared by the Safeguards Team in consultation with the CPIU Engineering Team, the document is sent to ECD/MEMCD for screening. This activity is mainly carried out by ECD with input from the CPIU Safeguards Team in order to understand the likelihood and significance of impacts and determine whether, and what level of, EA will be required.

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5 These guidelines were prepared under ADB *Technical Assistance for Strengthening Country Safeguard Systems in the Transport Sector* (approved by ADB Board in 2012 as TA 8217-SOL, Japan Fund for Poverty Reduction grant of $600,000)
127. **Step 5: Determination if EA required.** As discussed above this activity is the decision by the Director ECD based on inputs from CPIU/MID and their own analysis about whether a PER will be sufficient to analyze the impacts and prepare adequate management plans. In most cases NTF activities are ‘prescribed activities’ requiring PER. Scoping is not usually required for Tier 3 activities because such activities are generally screened as requiring a PER level of EA which is more or less equivalent to category B and initial environmental examination under the ADB SPS.

128. Any activity that would be classified as category A under SPS is excluded from STIIP. It should be noted that it is possible under the current CSS for the Director ECD to screen a Tier 3 activity as requiring EIS if the activity is likely to generate significant impacts or is located in a sensitive area or environment. This is not necessarily equivalent to a category A project under the ADB SPS. In the event of an EIS determination, a scoping is undertaken to prepare a TOR to guide the EIS study and reporting. The subsequent EIS work must conform to the agreed TOR.

129. **Step 6: Prepare EA report and submit development consent application.** This activity is normally carried out by Safeguards Team and consultant undertaking baseline study. The EA report (either PER or EIS) will require the results of site visits, consultations as well as the secondary data analysis. A PER does not need to be an exhaustive analysis but focus on the components that will require management during implementation; it is important to focus on building a good concept EMP rather than carrying out extensive impact assessment on issues which are already well understood. If the EMP has been prepared and focused on the significant impacts, the document is then very useful for the Contractor to prepare the CEMP and CEMA (Annex 7).

130. **Step 7: Development application submitted.** Once the EA report (either PER or EIS) is prepared in draft it is sent to ECD/MEMCD and development partners for first review. An application fee is payable on submission of the development application with the PER.

**Stage 3 - Appraisal and Approval**

131. **Step 8: First review.** A series of comments are prepared by ECD and other stakeholders including development partners on the various technical, environmental, social and community issues.

132. **Step 9: Public display and participation.** The CPIU responds to the first round of comments and revises the document so it is ready for review by the community at large. The EA report is placed on public exhibition and is disclosed on the local MID website and the Ministry of Finance website.

133. **Step 10: Second review.** The EA report is revised based on comments collected by ECD from the various stakeholders including civil society and is then re-submitted to ECD/MEMCD and development partners as a final document.

134. **Step 11: Approval.** The document is normally approved by ECD/MEMCD and could include some conditions of approval which will require specific management and/or monitoring during implementation that need to be reflected in the tender documents.

135. **Step 12: Development consent and pre-tender.** Once approved (including issue of development consent), the EA report as one part of the overall feasibility study may proceed to procurement provided that the various other elements have been approved by line ministries and development partners as required.
Stage 4 - Procurement

136. The remaining stages are almost identical to those in the procedures for Tier 2 activities.

137. **Step 13: Production of the tender documents.** Based on the scoping, the design engineers determine the specifications or scope of works for the project and produce a final project description. They produce a BOQ which is then submitted to the procurement division for incorporation into the bid or tender documents. The procurement team produces the tender documents. These tender documents contain the safeguards or safeguards-related requirements which contractors will have to comply or produce. These safeguards requirements are as follows:

(i) Item in the BOQ for the establishment and operation of the CACs (Annex 4);
(ii) Attendance at training for CAC operations;
(iii) Provisional sum in BOQ for any damages or injury to property in the course of works;
(iv) Establish the GRM (Annex 2) and commencement of CAC operations (Annex 4); and
(v) Pre-bid meeting for bidders - the Tier 3 Guideline (Annex 9), focusing on CEMP and monitoring requirements, is explained to bidders by a CPIU safeguards officer.

138. **Birth certificate issued.** The birth certificate verifies that in the case of this sub-project that the community has been made aware of the project, that a CAC will be established and the requirement for contractors to prepare a CEMP. The procurement manager then sends the safeguards-related sections in the tender documents to the safeguards manager for review and sign-off. When all safeguard-related conditions are present, the safeguards manager signs off on the release of the tender documents to bidders. Bids are evaluated and awarded.

Stage 5 - Contractor Mobilization and Civil Works

139. **Step 14: Training.** Similar to Tier 2 requirements, the CPIU provides training to the contractor on Tier 3 Guidelines (see Annex 9) and Sourcing of Road Construction Materials Guidelines (Annex 6).

140. Training of Contractors is advisable for new contractors before the Contractor mobilizes to the site in order to ensure that the Contractor understands all the requirements of the MBMC Guideline and that the CEMP is required.

141. **Step 15: Establishment of CAC.** The Contractor must establish CAC immediately after mobilization if contract period is six months or longer. If Contractor wishes to employ or sub-contract to community members, Site Supervisor/Regional manager must confirm establishment of CAC and employment/sub-contract agreements have been recorded minutes of the CAC. Agreements on Sourcing of construction materials from the community must also be recorded in the minutes.

142. **Step 16: Preparation and approval of CEMP.** The Contractor is required to prepare a CEMP and CEMA (Annex 7) which is basis of potential works and monitoring. The CEMP may be prepared by Contractor or a consultant employed by the Contractor. Once completed it is sent to CPIU Safeguards for approval. The CPIU Safeguards Team reviews and visit the field with the Contractor to agree on potential issues and locations. Contractor then signs the CEMA prepared by the safeguards team confirming the field visit and agreements and approves the CEMP.
143. **Step 17: Notice to proceed.** The Site Supervisor / Regional Manager can then issue a Notice to Proceed to works and both Contractor and CAC begin their activities as per the approved CEMP.

144. **Step 18: Monitoring.** Contractor monthly reports with Checklist from MBMC guideline. The routine monitoring of safety, health and environment are reported in the monthly report. If there is an issue it is reported to Safeguards officer for action. CAC can provide third party oversight of contractor on quality issues and also report incidents to Safeguards Team. The GRM can be used if issues are not resolved in reasonable time period.

145. **Step 19: Quality control and monitoring.** Undertaken jointly by the CPIU and the contractor. The Contractor's designated safety, health and environmental officer will complete the Monthly CEMP Update Checklist (included in Annex 5) which is integrated into the Contractor’s Monthly Report, this is checked by the Site Supervisor. The Monthly Reports are submitted to the CPIU.

146. **Step 20: Quality assurance monitoring.** Routine compliance audits for quality assurance to verify proper compliance by the Contractor with the CEMP is to be carried out by the Safeguards Environmental officer at least every two months of the contract period. The findings of these audits are incorporated into the QPR prepared by the CPIU and submitted to MID and development partners.

147. **Step 21: Imposition of sanctions.** The responsibility for enforcement of the Tier 3 Guideline and CEMP is with Site Supervisor/Regional Manager as these are contract conditions. Basis of Enforcement is 'two strikes and you are out'. If an incident occurs that breaches MBMC guideline or the approved CEMP the contractor is given two warnings to remedy or mitigate before stop work order is issued by the CPIU Regional Manager with verification from the safeguards team.

**Stage 7 – Activity Completion**

148. **Step 22: Verification of job completion.** Job completion is confirmed by Site Supervisor/Regional manager with input from the Safeguards Team that verifies that the CEMP responsibilities have been completed.

149. **Step 23: Job completion.** The Site Supervisor notifies the procurement unit that the Job Completion Certificate may be issued.
Figure 3 - Tier 3: Major Rehabilitation & New Construction Environmental Procedures Showing Main Stakeholder Roles
B. Land Acquisition and Resettlement

150. Rehabilitation works are anticipated to have lesser LAR impacts than new works. In the case of rehabilitation of roads, the LAR impacts are similar to those for Tier 2 activities, that is, temporary access to adjoining land for storage of construction materials and equipment.

151. New works will require going through the whole project cycle. Major rehabilitation will have to pass through most of the steps in the project cycle.

Stage 1 - Project Identification

152. **Scoping.** At project identification, project-level scoping begins after the annual work program is finalized. For rehabilitation works, technical scoping by the engineers is undertaken to assess the facility's condition and identify the specific type of works for a particular facility. For a new facility, technical scoping is done to make a preliminary assessment of the site's suitability and characteristics.

153. **Identification of landowners, boundaries of land, and issues.** Social scoping is done by the safeguards team to gather information on the land: its physical attributes (boundaries, area and use), the fixed assets on it, its ownership, and any issues or disputes which may make land acquisition difficult. The information gathered is the same as those for Tier 2. In addition, the safeguards team identifies potential risks which can make land acquisition difficult.

154. **Information disclosure and consultation.** The safeguards team discloses the project information during a community meeting/consultation.

155. **Establishment of the CACs.** The safeguards team commences the organization of the CAC with the selection of representatives and orientation on the purpose and functions of the CAC as elaborated in the approved MID guidelines. (Annex 4) The scoping report will be used to determine the number of CACs for the project.

156. **Establishment of the GRM.** The safeguards team begins the establishment of the project's GRM, which at the project site, is anchored on the CACs. The GRM is disclosed in the project site.

157. **Scoping report and preparation of the TOR.** Scoping identifies impacts and the needed studies and instruments to address these impacts. The outputs of the scoping exercise are a scoping report (Annex 10), and if necessary, a TOR for the assessment of LAR impacts and preparation of a LAR plan (LARP). The safeguards team prepares the TORs.

158. **Procurement of consultant services for feasibility study.** Depending on the complexity of the works, the feasibility studies is either done internally in the CPIU/MID or outsourced to external consultants. New works such as wharves and airfields may require inputs from external experts. Feasibility studies for rehabilitation of roads can be done in-house. In this case, the assessment of LAR impacts and preparation of LARP may also be done in-house by the safeguards team. If feasibility studies are outsourced, procurement of the consultant services is undertaken. The role of the safeguards team in the consultant selection process consists of the following:

159. **Coordination with the procurement manager.** The safeguards manager coordinates with the procurement manager for schedules for the issuance of the REOI, schedules of the pre-tender conference/orientation, and issuance of tender documents.

160. **Checking the REOI.** Prior to advertisement, the Safeguards Manager checks if the REOI contains the necessary references to the social and environmental studies to be done.
161. **Sign-off on the tender documents.** Prior to issuance of the tender documents, the safeguards manager checks if the tender documents contain the TORs for the assessment of LAR impacts and preparation of LARP.

162. **Conduct of training during the pre-tender conference.** Those who have expressed interest undergo a pre-tender conference, which includes a session on the safeguards requirements.

163. **Post-award meeting.** After award, the CPIU, including the safeguards team, meets with social safeguards consultant team in the feasibility studies. The conduct of the studies is discussed in this meeting.

164. **Review of inception report.** The feasibility studies safeguards consultants are typically required to submit an Inception Report after mobilization. This is reviewed by the safeguards team and international safeguards expert in the CPIU. The report is revised and finalized addressing the comments of the safeguards team. When the inception report is found satisfactory, the safeguards manager recommends acceptance of the report to the CPIU Manager.

**Stage 2 - Feasibility Studies and LAR Planning**

165. The principal output of the studies is the feasibility study report. This report contains the recommended basic design. Before the basic design is adopted, different design options are generated and design criteria formulated to screen these options. The feasibility studies should also explore and analyse with or without project scenarios and alternatives/substitutes to the project itself.

166. The role of the safeguards specialists is to ensure that social and LAR considerations are considered in the design criteria following the objectives of avoiding and minimizing the LAR and social impacts where feasible. Measures to enhance access of project affected persons, especially vulnerable groups, to project benefits are also identified.

167. **Training of the CACs.** The CACs are trained by the safeguards team on their duties, including grievance redress, and on the various activities of the feasibility studies.

168. **Conduct of the studies.** Social and LAR considerations are about the type of impacts the project would generate and their intensity or magnitude. Project’s social impacts are studied and corresponding measures to mitigate them identified through assessment of LAR impacts and preparation of LARP.

169. The assessment of LAR impacts seeks to identify the positive and negative social impacts of the project, including resettlement. The results of the LAR impacts assessment are incorporated into the LARP. Besides impact identification and analysis, the assessment of LAR impacts elaborates on measures to: (i) enhance positive impacts such as measures to promote equitable access to project by different APs; and (ii) mitigate negative impacts.

170. **An assessment of LAR impacts consists of the following:**

   (i) Demographic and socio-economic study of affected persons
   (ii) Ethnic and inter-generational relations (where applicable)
   (iii) Poverty and vulnerability analysis of APs
   (iv) LAR and other social impacts
   (v) Gender analysis of APs
   (vi) Accessibility analysis (where applicable)
   (vii) Institutional analysis of organizations which are involved in implementing mitigation and enhancement measures on LAR.
171. LAR planning identifies measures to avoid, minimize, offset or compensate the negative impacts of LAR and to improve, or at least restore, standard of living and livelihood of affected persons to pre-project levels. Assessment of LAR impacts and the LAR planning use quantitative and qualitative methods of research. Examples of the first are surveys and census. Qualitative studies include community meetings, focus group discussions, key informant interviews, and participant observation.

172. The output of the social safeguards consultants in the feasibility studies stage is the LARP which incorporates the results of assessment of LAR impacts (Annex 11).

173. **Review and approval of the LARP.** The draft LARP is submitted by the safeguards team or the external consultants to the safeguards manager. The safeguards manager asks the international safeguard expert to review the LARP. If a development partner is providing financing to the project, the LARP is endorsed to the development partner for review.

174. The LARP is revised and finalized addressing the comments of the international safeguards expert and the development partner. When the LARP is found satisfactory, the safeguards manager recommends to the CPIU Manager to issue an official acceptance of the LARP.

175. **Disclosure of the LARP.** The safeguards team discloses the final as well as draft LARP in a timely manner, in an accessible place and a form and language understandable to affected persons and other stakeholders. The CAC facilitates the disclosure of the LARP in the project location.

**Stage 3 - Appraisal and Approval of Feasibility Study**

176. The summary of the feasibility studies and the basic design report are submitted to the NTF Board for appraisal and approval. The appraisal consists of examining the technical and economic feasibility of the project and its safeguards acceptability. The NTF Board ascertains that the necessary development consents have been obtained and safeguards documents approved. The NTF Board can decide to give the go-ahead, defer the project, or shelve it altogether.

177. After the project has been approved, the safeguards team undertakes a number of additional LAR activities as follows.

178. **Updating the CACs.** The safeguards team update the CACs on project approval and the next steps. The CAC receives refresher training on their duties, including grievance redress.

179. **Procurement of experts for further studies.** After approval of the project, if a detailed design was necessary and the services to be provided by an external party, the procedures for procurement discussed in previous stages above are followed.

180. **Consultation and negotiations with landowners.** With the CAC, the safeguards team consults with the landowners on accessing or acquiring the land. The option of granting an easement on the land through a Memorandum of Agreement (MOA) is presented to and discussed with the landowners. In the case of customary landowners, the tribal representatives or leaders are asked to discuss with their members, document the proceedings, and decide. They are also advised to seek legal counsel. Unlike the MOU which the MID/CPIU enters with customary landowners for Tier 2 projects, the MOA is legally binding.

181. **Preparation of the resettlement site.** In the remote possibility that a resettlement site is necessary, the following activities will be undertaken:
a. **Consultation with the host community.** If off-site relocation is anticipated, the safeguards team immediately after project approval does the consultation with the hosting community.

b. **Coordination with other Ministries.** MID coordinates with other government ministries and non-government organizations to undertake livelihood or business development, technical skills training, financial literacy, small savings and loan associations.

c. **Design of the Resettlement Site.** The design of the resettlement site is included as part of the TOR of the detailed design team.

182. **Coordination with the Commissioner of Lands for acquisition.** If the landowners do not agree with the grant of easement through MOA, the safeguards team coordinates with the Commissioner of Lands (COL) to initiate land acquisition through the modified land acquisition process (Annex 12) under Division B, Part V of the Land and Titles Act (LTA). The COL will also initiate land acquisition for a resettlement site.

**Stage 5 - Detailed Engineering Design**

183. After approval, the DED begins. The DED reviews the basic design and further develops it. For rehabilitation of roads which does not involve shifting the centre-line or expansion outside the ROW, the basic design may be sufficient, and there is no need to do a DED. The project locations and boundaries are defined at this stage. For LAR planning, this enables detailed measurement of the following:

(i) land to be accessed or taken, including the resettlement site.
(ii) physically and economically displaced persons and their characteristics
(iii) assets to be acquired
(iv) losses of livelihood or income
(v) the number and characteristics of the persons to be physically and economically displaced.

184. The major undertaking is the updating of the feasibility stage-LARP. If there is physical displacement and offsite relocation, a design for the resettlement has to be produced. The updating requires three sets of skills which may require engagement of external specialists. These three sets are: physical surveying, social surveying, and valuation. If procurement of expert services were necessary, the procedures used during the feasibility studies will be used.

185. The procedures for updating and approval of the LARP are as follows:

186. **Updating the CACs.** The safeguards team updates the CACs on the detailed design. The CACs receive refresher training on their duties, including grievance redress.

187. **Marking of boundaries of land under acquisition.** The Surveyor General or the physical surveyor in the DED team measures the land to be acquired, installs physical markers, geotags and shows them in the cadastral map or the detailed design drawings.

188. **Tagging.** After the physical survey of the land, the social survey team tags and photographs the affected assets and identifies their owners. An Inventory of Losses (IOL) report is generated (Annex 13). Annual crops are allowed to be grown and harvested prior to the start of civil works.
189. **Valuation.** Valuation of the affected non-land assets are undertaken by a private appraiser engaged by the DED team or by the Valuer-General in the case of land acquisition through the LTA. If the affected non-land assets are small in number, the safeguards team may undertake valuation using the latest schedules of the Valuer-General and the Ministry of Agriculture and Livestock Development.

190. **Census.** A census is conducted among the APs. For customary land, which can have hundreds or even thousands of families as members, a survey is done instead. The census also identifies who have principal and secondary rights to the affected land. The census results are incorporated into the updated LARP. The census is done to identify those who are eligible for entitlements and the vulnerable among them. Vulnerable groups consist of poor and female-headed households, widows, the elderly, persons with disabilities, and children.

191. **Publication of the cut-off date.** The end of the census is the cut-off date. The safeguards team, the CAC, and the detailed design consultant publicize the cut-off date in the project site. Any person who sets up a structure for whatever purpose or introduces improvements with the exception of annual crops after the cut-off date is ineligible for compensation.

192. **Updating the LAR budget.** The LAR budget is updated to reflect the current prices of the affected non-land assets and the land purchase or rental price agreed upon by the COL and the customary landowners.

193. **Review and approval of the updated LARP.** The updated LARP goes through another round of review and approval. With the assistance of the international safeguards expert, the safeguards manager reviews these documents.

194. If a development partner is providing financing to the project, the updated LARP report is endorsed to the development partner for review and concurrence.

195. The report is revised and finalized addressing the comments of the safeguards team and the development partner. When the updated LARP is found satisfactory, the safeguards manager recommends to the CPIU Safeguards Manager to accept the LARP.

196. **Disclosure of the reports.** The safeguards team discloses the updated LARP in a timely manner, in an accessible place and in a language understandable to affected persons and other stakeholders. The CAC facilitates the disclosure of the updated LARP to the communities.

197. **Engagement of a third party monitor.** Where there is significant LAR impacts and potentially, physical displacement and off-project site relocation, the CPIU engages a third party monitor. The TOR of this third party monitor is found in Annex 14.

198. **Monitoring of negotiations.** The third party monitors the conduct of negotiations between the CPIU and the landowners.

199. **MOA signing.** Negotiations continue during this stage, and if successfully concluded, the CPIU enters into a MOA with the different landowners. The MOA is signed by the landowners, the CPIU manager, and a third party.

200. **Submission of the MOA.** The MID submits the MOA to the AGO for review and concurrence.

201. **Entry into the legal record.** The MOA is brought to a notary who will enter into the legal record, thereby making it legally binding on the parties in agreement.
Stage 6 - LARP Implementation

202. In most projects, LAR implementation begins after disclosure of the updated LARP and while tendering is in progress for the civil works contractor. The manner of land access determines the source or party responsible of payment. For NTP projects, there are two modes of accessing or acquiring the land: through a MOA and through the regular or a modified land acquisition process under LTA.

203. Under a MOA, the civil works contractor pays the compensation for non-land assets as stipulated in their conditions of contract. An item is included in the contractor's BOQ for this purpose. In this mode, LARP implementation is undertaken in the period between the mobilization of the civil works contractor and commencement of civil works.

204. If the regular or modified land acquisition process under LTA is used, the government through the COL pays the full purchase price or the upfront payment in the case of land lease to the affected customary landowners. Payments depend on the successful conclusion of negotiations. This length of the negotiations can push back LARP implementation, and subsequently, the start of civil works. Annual payments are also paid by the government, usually through the MID budget.

205. **Updating of the CACs.** The safeguards team train the CACs on LARP implementation, monitoring, and assessment.

206. **Enforcement of conditions of contract.** Contract enforcement and management are the work of the Jobs Manager and the Site Supervisor. The Job Manager and Works Supervisor monitor the payment done by the contractor.

207. **Payment by the civil works contractor or the government.** The contractor mobilizes on site and pays compensation to the affected persons for non-land assets, transfer allowances, and business disruption allowances.

208. For land acquisition/access under the LTA, the government pays the purchase price or the upfront payment.

209. **Verification by the CAC and safeguards team.** The Job Manager reports to the Regional Manager on the contractor's performance. If payment is made, the Regional Manager informs the Safeguards Manager. The CAC and the safeguards team verify completion of payment. The safeguards team submits a report to the safeguards manager.

210. **Signing-off on the NTP for civil works.** Once it has been verified that the contractor or the government has paid all the compensation, the safeguards manager signs off on the notice to proceed for the contractor to take possession of the site and start works.

211. **Grievance handling and monitoring.** The CAC receives grievances and resolves them. Those grievances which are beyond the CAC’s ability to resolve are passed on to the Jobs Manager. If appeals are made, the Regional Manager attempts to resolve the issue with the support of the safeguards team. Throughout LAR implementation, the safeguards team monitors grievance receipt and handling by the CACs, the Job Managers, and the Regional Managers. The safeguards team enters the grievances received, handled, and resolved into the Grievance Register. The team updates this register as grievances are settled or progress through the different levels of the mechanism.

212. **External monitoring of LARP implementation.** In case of significant LAR impacts, the third party also monitors LARP implementation and outcomes. The third party submits an external monitoring report covering the conduct of negotiations, LAR implementation and its outcomes, specifically if standards of living of APs have been restored or improved. If there are any negative findings, the monitoring report includes a corrective action plan (CAP).
213. **Implementation of corrective action plan.** The Safeguards Manager discusses the report and the CAP with the third party monitor and the Regional Managers. The contractor implements the CAP under the supervision of the Job Manager. For actions which are beyond the ambit of the contractor’s obligations, especially when LTA is used, the safeguards team coordinates with the COL or the MLHS for implementation of the remediation measures.

214. **Monitoring of Implementation.** The safeguards team and the CAC monitor LARP and CAP, if any, implementation. CPIU submits to MID and development partners a land acquisition completion report at the end of the LARP implementation as well as six-monthly LAR safeguards monitoring report.

**Stage 7 - Civil Works**

215. When civil works start, implementation of most of the mitigation measures in the LARP should have been completed, or in the case of livelihood restoration or transitional assistance to those displaced, ongoing. Where there is physical displacement and transfer to an off-site relocation, the scope of works of the civil works contractor usually includes the development of the resettlement site also. Site development is completed before people are transferred to the site. The MLHS supervises this process with the support of the MID and other government ministries.

216. During civil works, the safeguards team continues to update and train the CACs. The CACs continue to perform their function in receiving and resolving grievances. The safeguards team monitors grievance handling by the CACs, and in certain cases, may be called upon to support the Regional Managers, Job Managers and Works Supervisors in resolving these grievances.

217. Civil works may require changes in the original design. A variation order is prepared to reflect the changes in design, scope of works, and project cost. The safeguards team undertakes due diligence on the impacts of the proposed variation. If it requires substantial changes in the MOA or a new MOA has to be negotiated, the third party monitor may be mobilized to monitor, witness, and assess outcomes.

218. **Review of the variation order.** The design team prepares the revised design and provide a copy to the Safeguards Manager. The safeguards team will undertake desk review and visit the site to assess if the proposed variation order will have LAR impacts. If there is any additional land acquisition, an addendum to the MOA and a supplemental LARP are prepared by the safeguards team according to the procedures set forth above.

219. **Approval and disclosure of the supplemental LARP.** The supplemental LARP is submitted to the safeguards manager for review and approval. The approved supplemental LARP is disclosed by the safeguards team.

220. **Implementation of the LARP.** The MID/ contractor implements the LARP.

221. **Monitoring and verification.** The CAC monitors the payments, and the safeguards team verifies.

222. **Signing-off on the variation order.** Once all the payments are made as monitored by the CAC and verified by the safeguards team, the safeguards manager signs off on the variation order.
## ANNEXES

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ANNEX 1: OUTLINE OF A COMMUNICATION AND CONSULTATION PLAN

I. Introduction
II. Project Description
III. Objectives or Purpose of a Communication and Consultation Plan
IV. Stakeholder Analyses
V. Communication and Consultation Strategy
VI. Key Messages, Competing Concerns, Channels of Communication
VII. Responsible Parties
VIII. Budget
IX. Schedule of Implementation
X. Monitoring and Evaluation
During the course of NTP activities, it is possible that people may have concerns or grievances with the project’s performance which may include any aspect of the implementation of an activity or a component of the project. Issues may occur during construction and again during operation. Any concerns will need to be addressed quickly and transparently, and without retribution to the affected person (AP) or group of people involved.

The NTB has adopted the grievance redress mechanism (GRM) set out in this document to satisfy both SI legislative and development partner requirements.

If there were a need to use the GRM then the following process is to be used. It would commence with an attempt to sort out the problem directly at subproject level with the community advisory committee (CAC) and the designated Contractor. If the issue cannot be resolved, then the grievance will be addressed by being referred to the Safeguards Manager of the CPIU in MID and if necessary the PS and then subsequently referred to a third party arbitrator as part of a GRM Committee within MID. The aggrieved party could also appeal to the National Court.

The GRM Committee would be chaired by the PS and include, the Director of the Central Project Implementation Unit (CPIU), the Project Engineer (PE), the Contractor and the third party arbitrator appointed by the PS.

1. During Construction

Most complaints arising during construction are expected to be minor complaints concerning dust or noise that should be able to be resolved quite easily. All complaints arriving at the Contractors Site Office are to be forwarded to the CAC and entered in a Register that is kept at the site by: date, name, contact address and reason for the complaint. A duplicate copy of the entry is given to the AP for their record at the time of registering the complaint.

The Register will show when the issue is to be dealt with by the CAC and who has been directed to deal with the complaint and the date when this was made together with the date when the AP was informed of the decision and how the decision was conveyed to the AP. The Register is then signed off by the person who is responsible for the decision and dated. The Register is to have one copy at the front desk of the Site Office and the other with the Chairperson of the CAC and is a public document. The triplicate copy given to the AP will also show the procedure that will be followed in assessing the complaint, together with a statement affirming the rights of the AP to make a complaint. For anybody making a complaint, no costs will be charged to the AP.

Affected people are in the first place to discuss their complaint directly with the Chief in their village who will then discuss and notify the Chairman of the CAC. If the Chief supports the complaint, both persons take the complaint to a meeting of the CAC which will invite the on-site PE. For straightforward complaints, the PE can make an on-the-spot determination to resolve the issue and inform the CAC in writing within seven days.

For more complicated complaints, the PE will forward the complaint to the Manager of the Safeguards Unit within the CPIU. The Manager will then discuss the issue further with the CAC and has a maximum of 14 days to resolve the complaint and convey a decision to the AP. The AP and the Chief and Chairman of the CAC may if so desired, discuss the complaint directly with the PE. If the complaint of the AP is dismissed, the AP will be informed of their rights in taking it to the next step. A copy of the decision is to be sent to MID and ECD.
Should the AP not be satisfied, the AP may take the complaint to the Permanent Secretary (PS) in MID who will appoint a third party arbitrator to form part of a GRM Committee to hear the complaint. If the AP is dissatisfied with the recommendation of the GRM Committee and subsequent determination from the PS in MID, the AP may appeal to the Court. This will be at the APs cost but if the court shows that the PS, has been negligent in making their determination the AP will be able to seek costs.

2. **During Operation**

The complaint will be referred directly to the CPIU after the complaint is received in writing or by email to MID. During operation, the same conditions apply; i.e., there would be no fees attached to the AP for making a complaint, the complainant is free to make the complaint which will be treated in a transparent manner and the AP will not be subject to retribution for making the complaint.
ANNEX 3: COMMUNITY PROTOCOLS, SAFETY & ENVIRONMENTAL MANAGEMENT (CPSEM) GUIDELINES FOR TIER 1 ACTIVITIES

**Acronyms**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>AP</td>
<td>Affected Person</td>
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<tr>
<td>BMP</td>
<td>Building Materials Permit</td>
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<tr>
<td>CLEHSO</td>
<td>Community Liaison, Environment, Health and Safety Officer</td>
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<tr>
<td>COW</td>
<td>Clerk Of Works</td>
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<tr>
<td>CPC</td>
<td>Community Advisory Committee</td>
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<tr>
<td>CPIU</td>
<td>Central Project Implementation Unit</td>
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<tr>
<td>CPSEM</td>
<td>Community Protocol, Safety &amp; Environment Management Guideline</td>
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<tr>
<td>DMM</td>
<td>Department of Mines and Mineral</td>
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<tr>
<td>ECD</td>
<td>Environment Conservation Department</td>
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<td>EMP</td>
<td>Environmental Management Plan</td>
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<tr>
<td>LBES</td>
<td>Labor Based Equipment Supported</td>
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<tr>
<td>MECDM</td>
<td>Ministry of Environment Climate Change Disaster Management and Meteorology</td>
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<tr>
<td>MID</td>
<td>Ministry of Infrastructure Development</td>
</tr>
<tr>
<td>MMERE</td>
<td>Ministry of Mines, Energy and Rural Electrification</td>
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<tr>
<td>MOA</td>
<td>Memorandum of Agreement</td>
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<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
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<td>MSDS</td>
<td>Material Safety Data Sheet</td>
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<td>PE</td>
<td>Project Engineer</td>
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<tr>
<td>SIG</td>
<td>Solomon Islands Government</td>
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<tr>
<td>TOR</td>
<td>Terms of Reference</td>
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Executive Summary

The labor-based equipment supported (LBES) contract aims to provide opportunities for rural community participation in the project through employment of local labour to carry out routine maintenance and rehabilitation works of selected infrastructure. Implementation of LBES works will be in accordance with the Solomon Island Government (SIG) legislation and policies.

The objectives of the Community Protocol, Safety and Environmental Management Guidelines (CPSEM) are as follows:

- To facilitate the meaningful participation of the affected communities;
- To improve the level of service offered by contractors;
- To improve outcomes on the quality of rehabilitation and maintenance of the road;
- To ensure the works are carried out which minimize impacts on the environment; and
- To ensure workers and the general public follow appropriate occupational health and safety practices.

Each LBES project description will be provided to Environment and Conservation Division (ECD) for screening by MID. If the works are similar then, clusters of projects may be submitted together. The project description will comprise the location of the project, project type, project design/scope of works, material requirements and schedule of work. Upon receiving the description of the projects, ECD will screen the project and make a recommendation. LBES projects are very small scale with minor environmental impacts and would not normally require a Public Environment report or Environment Impact Statement. An Environmental Checklist as part of this CPSEM is required for this kind of project.

MID prepares the tender documents for the LBES contracts, and is responsible for procurement and supervision of the overall project. The Clerk of Works (COW) or Site Supervisor will be employed by MID/CPIU and deployed to the respective provinces where the projects are located. He/She will provide communication back to MID on contractors compliance and performance.

The contractor is responsible for implementing all community, environmental, health and safety actions included in the guidelines and relevant clauses in the tender documents. Upon signing the contract, the contractor is required to also sign a declaration form showing commitment towards implementing this guideline. To assist with the implementation of the project the contractor will be required to assign a Community Liaison, Environment, Health and Safety Officer (CLEHSO) whose responsibilities will include:

- Ensuring that the contractor complies with the clauses in the contract documents in respect of community, environment, health and safety;
- Coordinating with MID / CPIU in respect of community consultation;
- Facilitating consultation with the affected villages, various stakeholders, and ensuring smooth implementation of the project;
- Liaison between the MID/CPIU and the provincial administration and the communities to ensure effective implementation of the project;
• Ensure Gender and Local Involvement balance in the contractor workforce;
• Maximizing the participation of women in consultations and implementation of the works and
• Implementation of the CPSEM.

The contractor is required to facilitate the formulation of a community advisory committee (CAC) whose responsibility will include:

• Coordinate and implement work program with the contractor;
• Supervise community participation;
• Provide support to contractor;
• Deal with issues affecting the community;
• Ensure communities respect the reserve area to avoid disturbance to community activities such as crop planting and side markets;
• Assist in arranging meetings with the contractor and MID/CPIU, facilitating consultations with, and providing information about, affected communities and environmental impacts and
• Provide community feedback and simple monitoring information to MID on the exact and quality of works completed by the contractor.

Three provisions anticipated in this guideline are as follows:

• Environment management provision which covers the management of air quality, water quality, material extraction, soil and erosion, handling of chemicals, waste management, flora and fauna, noise and cultural property;
• Health and Safety Provision which covers workplace safety, public safety, use of hazardous materials, and implementation of communicable diseases (STIs/HIV/AIDS/Malaria/Dengue) awareness and prevention; and
• Community Participation Provision which covers the management of workforce and training for communities.

The following provisions shall be implemented and applied by the Contractor to avoid adverse impacts on the environment and communities in the vicinity of the site caused by the performance of the Works.

MID shall monitor the contractor’s compliance to these Community Protocol, Safety and Environmental Management Guidelines during the implementation of the projects.

All complaints are to be entered in a Register that is kept by: date of the complaint, name of the Affected Person AP (complainant), contact address and reason for the complaint. Affected people are in the first place to discuss their complaint directly with the Chief in their village. If the Chief supports the complaint, both persons take the complaint to the on-site CLEHSO. For more complicated complaints, the CLEHSO will forward the complaint to the COW who will forward the complaints to the MID Engineer within the Central Project Implementation Unit (CPIU).
General

The LBES contract aims to provide opportunities for rural community participation in the project through employment of local labour to carry out routine maintenance and rehabilitation works of selected infrastructure. Implementation of LBES works will be in accordance with the SIG legislation and policies.

The scope of works for LBES contracts largely includes road maintenance and wharf maintenance.

Road Maintenance

- the inspection and removal of obstructions;
- de-silting culverts and clearing inlets and outlets;
- clearing outlets, clearing side drains;
- catch-water and mitre drains;
- repair of shoulders and drains;
- repair of scour checks;
- grubbing ways;
- clearing structures and waterways;
- filling and patching potholes and ruts on unsealed pavement;
- cutting grass and bush;
- reshaping side drains and mitre drains; and
- improvement of stone scour checks and pipe culverts.

Wharf Maintenance

- Minor demolition and repair to wharf approaches;
- Stone pitching/embankments with motor to side slopes;
- Thorough clean surfaces of corroding steel sheet piling as directed by supervising engineer and apply primer coat and protective coating exposed surfaces; and
- Replace rusted fender chain base plates or pollards and apply corrosive paint.

In order to fulfil SIG requirements in carrying out the activities above, a safety and environmental guideline for action has been developed for the use by contractors and MID. The Community Protocol, Safety & Environmental Management Guidelines (CPSEM) covers:

- The legislative framework;
- Institutional arrangements;
- A recommended procedure and community protocol for contractors to execute the LBES;
• Environment management guidelines;
• Health and safety guidelines; and
• Community participation guidelines.

Objectives

The objectives of CPSEM guidelines are as follows:

• To facilitate the meaningful participation of the affected communities where roads and wharves are being serviced;
• To improve the level of service offered by contractors;
• To improve outcomes on the quality of rehabilitation and maintenance of roads and wharves;
• To ensure the works are carried out which minimizes impacts on the environment; and
• To ensure workers and the general public follow appropriate occupational health and safety practices.

Compliance with CPSEM Guideline is an integral part of each individual activity in the bill of quantities (BOQ), and thus no separate payments are made for the purposes of complying with these Guidelines. Contractors are required to sign a declaration form showing commitment towards implementing the guideline when signing the contract.

Legislative Framework

Environmental impact assessment and management in the Solomon Islands is provided for under the Environment Act of 1998 and the accompanying regulatory instrument, the Environment Regulation, 2008. The Act and regulations are administered by the MECDM.

Each LBES project description will be provided to ECD for screening by MID. The project description will comprise the location of the activity: i.e., project type, project design/scope of works, material requirements, and schedule of work. Upon receiving the description of the projects, ECD will screen the project and make a recommendation. LBES projects are very small scale with minor environmental impacts and would not normally require a public environment report or environment impact statement. An environment management plan as part of this CPSEM is required for this kind of project and approval in writing.

Institutional Arrangements

The overall institutional set-up is shown in Figure 1.

Ministry of Infrastructure Development and CPIU. MID prepares the tender documents for the LBES contracts, and is responsible for procurement and supervision of the overall project. The procurement phase includes reviewing and approvals, see to it the cost anticipated by the contractor with regard to the CPSEM guidelines is reasonable evaluating contractors’ tenders and recommendations for contract awards.
In the supervision phase MID through its engineers is responsible for monthly inspections and monitoring of the contractor’s compliance with the guidelines. MID is responsible for the provision of advice to contractors; advising contractor on issues needing attention and ensuring on-going assisting with community participation. The COW employed by MID would be carrying out supervision and monitoring on day to day basis. The MID through the COW is to ensure that the contractor does not commence activities until requisite approvals have been received from MID and/or CPIU and other SIG authorities.

The COW will be employed by MID / CPIU and deployed to the respective provinces where the projects are located. He/She will provide communication back to MID on contractors compliance and performance. Upon mobilization of the contractor, the COW and MID Engineers will carry out induction of the contractor at the project site. COW will provide weekly inspection and reporting of contractors work plan and TOR. COW advises the contractor on activities needing attention and when necessary reports back to MID. Any grievances arises from communities shall be taken up by COW to MID engineers once it is clear that the issue is beyond the contractors capacity.

**The contractor.** The contractor is responsible for implementing all community, environmental, health and safety actions included in the Guidelines and relevant clauses in the tender documents. During the mobilization phase the contractor is responsible for carrying out an initial community consultation. Among others the consultations will include the contractor’s work plan disseminated to the CAC. It is important that the contractors maximize community involvement within the project vicinity. The community consultations need to be formalized with a memorandum of understanding (MOU) signed between the Contractor and the CAC. Mobilization of work cannot be authorized by MID until the MOU and minutes of the first meeting of the CAC have been reviewed by CPIU which has delegated authority from MID to manage the contractor and the scope of works.
In cases where materials are required, the contractor is responsible to sign a Memorandum of Agreement (MOA) with the resource owners and acquire a Building Material Permit (BPM) from the Ministry of Mines, Energy and Rural Electrification (MMERE). To assist with the implementation of the project the contractor will be required to assign a CLEHSO whose responsibilities will include:

- Ensuring that the contractor complies with the clauses in the contract documents in respect of community, environment, health and safety;
- Coordinating with MID /CPIU in respect of community consultation;
- Facilitating consultation with the affected villages, various stakeholders, and ensuring smooth implementation of the project;
- Liaison between the MID/CPIU and the provincial administration and the communities to ensure effective implementation of the project;
- Ensure Gender and Local Involvement balance in the contractor workforce;
- Maximizing the participation of women in consultations and implementation of the works and
- Implementation of the CPSEM.

**Environmental & Conservation Division** ECD will screen all LBES projects and make recommendations. The ECD will be tasked also to assist in the auditing of the implementation of the CPSEM guideline and ensure that environmental management and mitigation of the project are undertaken to a good standard.

**Ministry of Mines, Energy and Rural Electrification (MMERE).** The Department of Mines and Minerals (DMM) is located within the Ministry of Mines, Energy and Rural Electrification (MMERE) and is responsible for issuing the BMP for extraction of sand and aggregate. The contractor will need to abide by the Mines and Minerals Act of 2008 regarding sourcing materials from sites that have approved BMP. MMERE with MID/CPIU will work to ensure all requirements regarding the BMP are met by the Contractor.

**Communities and resource owners.** Communities play an important role in the maintenance of s, bridges and wharves through the LBES works. Therefore, it is important their involvement is strengthened and recognized so that they can feel ownership of the infrastructure.

**The CAC.** It is the joint responsibility of the Contractor and communities to create a CAC that will work with the contractor and MID/CPIU. The committee will comprise leaders from the vicinity of the project site and the committee will sign the MOU with the contractor. It is important; the committee also ensures participation of youth and women. The CAC will be the advocate of the communities. The role of the CAC is as follows:

- Coordinate and implement work program with the contractor;
- Supervise community participation;
- Provide support to contractor;
- Deal with issues affecting the community;
- Ensure communities respect the road or wharf reserve area to avoid disturbance to community activities such as crop planting and side markets;
- Assist in arranging meetings with the contractor and MID/CPIU, facilitating consultations with, and providing information about, affected communities and environmental impacts; and
• Provide community feedback and simple monitoring information to MID on the exact type
of works completed and quality of works completed by the contractor.

Further explanation of the CAC Guidelines maybe found in Annex 4.

Environmental Management Provisions

The following provisions shall be implemented and applied by the Contractor to avoid adverse
impacts on the environment and communities in the vicinity of the site caused by the
performance of the works.

Air Quality. The Contractor shall:

• Maintain equipment to a good standard. The equipment shall be checked at regular
intervals to ensure they are maintained in working order and the checks shall be
recorded by the contractor as part of environmental monitoring and

• Prohibit the use of equipment that causes excessive pollution (i.e. visible smoke) at the
site.

Material Extraction. The Contractor shall:

• Not extract material from sites or sources other than those identified in the approved
BMP;

• Negotiate access to extraction sites with the land owners and users. In the event that the
Contractor is required to install a purpose-built access and the owner does not want to
keep the access, the Contractor shall be responsible for reinstating the land to its pre-
project condition;

• Not use any coastal areas identified as being part of a protected area (including the
buffer zone of a protected area), a proposed protected area, or having conservation
value, being habitat for rare or endangered aquatic species or birds, comprising part of
the inter-tidal zone, comprising swamp or wetland, or including mangroves, as sources of
graded coral material;

• Use only approved equipment for graded coral extraction from coastal area. The
Contractor shall not use dredging or similar operations for the winning of materials;

• Provide a statement of the consultation undertaken in the vicinity of the site in respect of
the extraction and mitigation/rehabilitation. Copies of the relevant agreements with the
landowners shall be provided to the Engineer before extraction at any site commences.
Responsibility for negotiating access remains solely with the Contractor; and

• Provide a statement of any permits that may be required from MMERE and ECD. Copies
of the relevant MMERE or ECD approval shall be provided to the Engineer before
extraction at any site commences.

Soils and Coastal Erosion. The Contractor shall:

• Locate material stock-piles, borrow pits and camps only on unused land or non-
agricultural land following consultation with land owners and village chiefs. Upon
completion of the project works, the Contractor shall ensure that all land is rehabilitated
to its original or better condition;
• Implement coastal protection works, embankments and erosion prevention measures along coastline e.g. rip-rap, retaining structures, gabion baskets etc to be used wherever necessary for river banks or coastal stabilization;

• Wherever possible, planting of indigenous plants along road corridor or at river banks or coastal areas to prevent erosion;

• Disposal of excavated soil from road side drains, mitre drains, culverts, bridges and other waterways at sites approved by the MID/CPIU and communities;

• Monitor embankments and coastal activities for signs of erosion during implementation period; and

• Not permit random and uncontrolled tipping of spoil or any material. The Contractor shall designate tip sites in consultation with land owners and village chiefs. Tip sites are not be permitted on the coastal side of the activity or on garden land or in areas used for livelihood production by villagers.

Fuel and Chemical Storage. In respect of avoiding or reducing impacts associated with storage of fuel and chemicals the Contractor shall:

• Strictly control filling and re-fuelling, and perform the same formal procedures to avoid leakage or spills;

• Store all inflammable and chemical agents in waterproof and secure tanks, compounds or store rooms with an impervious base which will not be located in the vicinity of water courses or streams. The compounds or store rooms will include a bund and secure fencing. The base and bund walls will be impermeable and be able to store 110% of the volume being stored;

• Ensure that the contents of any drums, tanks or vessels are clearly marked;

• Ensure that all fuel valves and trigger guns will be located so as to avoid interference and vandalism, and the same will be turned off and securely locked when not in use; and

• Take all necessary measures to ensure that no contaminated discharges enter any drain or watercourses.

Water Quality. In addition to a number of the items as outlined under Soils and Coastal Erosion and Fuel and Chemical Storage, further measures are to be employed to mitigate soil impacts and erosion effects that will also mitigate adverse effects on water quality, the Contractor shall:

• Use silt control devices to protect downstream environments during the extraction activities;

• Protect inter-tidal area from pollution, silting and erosion as a result of project activities;

• When necessary install sediment controls such as silt fences, or other sediment reducing devices (silt barriers), to prevent both siltation and silt migration during works being undertaken in the vicinity of the coast and rivers. Extra care and precautions will be taken in areas adjacent to mangrove stands and the inter-tidal zone;

• Ensure that sediment control devices are cleaned and dewatered and discharges will not be to the sea or inter-tidal area. Land-based areas for settling ponds or discharge areas shall be identified in consultation with land owners and village chiefs;

• Construct diversion ditches around material stockpiles;
• Not dispose of debris, spent oil or fuel from equipment, material, or waste vegetation removed from work sites along the coast or rivers;
• Not, under any circumstances, fell or remove mangroves;
• Not locate materials near the coast or rivers,
• Equip camps with sanitary latrines when necessary that do not discharge directly to or pollute surface waters and waterways; and
• Collect and dispose of all water, waste-water and other liquids used or generated by project works and activities in an approved manner and in an approved location. Such disposal will not be permitted to cause either pollution or nuisance.

Waste Management. The Contractor shall:

• Prohibit the discharge of polluted or hazardous materials or chemicals to the ground or coastal waters;
• Store liquids in tanks or drums that are not able to spill or discharge to coastal waters;
• Construct temporary treatment and drainage systems to collect and discharge liquid wastes. Untreated waste shall not be directly discharged but shall be treated, at least to a primary level, in treatment ponds prior to discharge; and
• Prohibit the dumping of unsanitary material, waste-water, chemicals, soil, waste oil and chemicals, fuel, lubricating oil etc.
• Collect, and sort all waste materials as follows:
  i those that can be recycled and
  ii those that need to go to an approved landfill site for disposal.

Clearing and removal of vegetation. The Contractor shall:

• Limit area to be cleared;
• Identify areas of significant vegetation;
• Define areas by clear boundaries;
• Establish 10 m wide buffer zones around water courses;
• Ensure equipment operators understand boundaries; and
• Ensure that vegetative material is disposed of by communities for fuel-wood or if an impediment to work, the vegetative material may otherwise be burnt by clean fires.

Flora and Fauna. The Contractor shall:

• Inform all Contractor’s Personnel about general environmental protection and the need to avoid unnecessary felling of trees;
• Provide adequate training to all communities in relation to existing laws and regulations regarding illegal logging;
• Specifically acknowledge that the felling of trees, not required to be cleared for the project, by any of the Contractor’s personnel, is expressly prohibited;
• Provide adequate training to all Contractor's personnel in respect of the protection of fauna and wildlife;
• Impose sanctions on Contractor’s personnel who are caught trapping, killing, poaching, or having poached fauna;
• Not permit the establishment of Contractor’s or sub-contractor’s camps, work-shops, rock crushers and material storage in any ecologically important sites or areas valuable for conservation (including traditional resource management areas) and shall obtain approval from Engineer for all proposed sites;
• Not permit, under any circumstances, the felling or removal mangroves; and
• Supply appropriate and adequate cooking fuel in workers’ camps to prevent fuel-wood collection.

Clearance and Rehabilitation. In respect of clearance and rehabilitation the Contractor shall:

• Remove all solid waste from sites and dispose in approved landfills;
• Remove all contaminated soil and dispose in an environmentally sound manner to the satisfaction of the Engineer;
• Rehabilitate and restore all sites to their original conditions;
• Re-establish drainages - included as part of final inspection before payment is made; and
• Undertake all restoration of sites and borrow areas, as well as their immediate surroundings, in an environmentally sound manner to the satisfaction of the Engineer.

Noise. In order to mitigate the effects of noise, the Contractor shall:

• Maintain all equipment exhaust systems and noise generating equipment in good working order and ensure that regular equipment maintenance is undertaken;
• Prohibit any earth work activities between 9 pm and 6 am in, or close to, villages;
• Prepare a schedule of operations in consultation with village chiefs and local communities for approval by the Engineer. The schedule shall identify the days on which there should be no work, hours of work for each activity, and identify the types of equipment to be used; and
• Deal, without delay, with any complaints regarding noise. In the event that the complaint cannot be resolved, the Contractor shall inform the Engineer.

Cultural Property. In respect of any known or undisclosed cultural property, the Contractor, in consultation with chiefs, local community and resource owners, shall:

• Ensure that there are no Tambu sites, or other culturally or traditionally important sites, in proposed locations for any site activities;
• Comply with all national and international standards in respect of preservation of historic and cultural sites and values; and
• In the event of any unforeseen discovery of cultural or historic artefacts (both moveable and non-moveable), take all necessary precautions to protect the findings, and immediately notify village elders, the COW and MID Engineers and a representative of the National Solomon Islands Museum (Tambu register).
• If continuation of the work may endanger the findings, work shall be stopped until a solution for the preservation of the findings can be agreed upon.

**Other Social Impacts.** To avoid, or reduce the risk of, any other social impacts resulting for implementation of the Works and activities the Contractor shall:

• Establish rules of conduct for Contractor’s personnel, and ensure that at all times staff and workers respect village and land owner’s boundaries and that they are aware of village rules and terms of conduct, including, avoiding damage to productive trees and gardens. and disrupting access to beach, foreshore and freshwater springs;

• In the event that there are complaints about the behavior or conduct of Contractor’s personnel, immediately and seriously deal with the complaint, and the method of addressing the grievance will be relayed to the complainant;

• In the event that the person making the complaint is not satisfied that the complaint has been resolved, refer the matter to the MID Engineer who may deal with it in accordance with the provisions of the Specifications. The Contractor shall record the lodgement and resolution of any and all complaints; and

• Remove all temporary structures provided within the Site and re-instate the land to its pre-project condition at the completion of the works.

**Health and Safety Management Provisions**

**Work Place Safety.** The Contractor shall:

• Provide workers with personal protection equipment, such as safety boots, reflective vests, helmets, gloves, protective clothing and safety glasses if required;

• Ensure no drugs or alcohol are allowed on-site;

• Ensure there is a first aid kit on site;

• Erect warning signs, barriers, traffic cones and use traffic controllers when working on or close to the road pavement or wharf area according to the contract Specifications;

• Control noise and dust; and

• Provide detours as required.

**Public Safety.** The Contractor shall:

• Consult with local communities in the event that access to a village has to be disrupted at any time;

• Use signs and other appropriate safety features to indicate that works are being undertaken;

• Ensure that the working area is kept free of debris, spoil, and any other material at all times;

• Erect traffic calming devices;

• Erect signage; and

• Hold road and wharf safety awareness meetings with the communities living adjacent to subproject.
Use of Hazardous Materials. The Contractor shall:

- Ensure that all hazardous substances are properly labelled with product name, weight, together with its formulation, direction of use and what is to be used for and treatment information.
- Display Material Safety Data Sheet/s (MSDS) in work areas; and
- Abide by Appendix 5 - ADB Prohibited Investment Activities List included in the document *ADB Safeguard Policy Statement, June 2009*.

Communicable Diseases Awareness and Prevention

This item covers sexually transmitted infections (STI), HIV/AIDS, malaria and dengue.

- MID / CPIU will Implement Awareness and Prevention programs for contractors and communities; and
- The Contractor shall take measures to provide protection to the workers, including distributing Mosquito repellent, condoms etc.

Community Participation Provisions

Work Force. The Contractor shall:

- Give preference hiring work-force from Local communities; and
- Ensure participation of youths and women in the work-force.

Training and Capacity Building. The Contractor shall:

- Provide necessary training for the Communities carrying out the work activities.

Grievance Redress Mechanism

All complaints are to be entered in a register that is kept by: date of the complaint, name of the affected person AP (complainant), contact address and reason for the complaint. A duplicate copy of the entry is given to the AP for his/her record at the time of registering the complaint. The register will show who has been directed to deal with the complaint and the date when this was made together with the date when the AP was informed of the decision and how the decision was conveyed to the AP. The register is then signed off and dated by the person who is responsible for the decision. The register is to be kept by the contractor and MID / CPIU and is a public document. The duplicate copy given to the AP will also show the procedure that will be followed in assessing the complaint, together with a statement affirming the rights of the AP to make a complaint. For anybody making a complaint, no costs will be charged to the AP.

Affected people are in the first place to discuss their complaint directly with the Chief in their village. If the Chief supports the complaint, both persons take the complaint to the on-site CLEHSO. For straightforward complaints, the CLEHSO can make an on-the-spot determination to resolve the issue. For more complicated complaints, the CLEHSO will forward the complaint to the COW who will forward the complaints to the MID Engineer within the CPIU. As soon as practically possible the MID Engineer makes a decision on the complaint and conveys the decision to the AP. The AP and the Chief of Village may if so desired, discuss the complaint directly with the MID Engineer.
Community Protocol, Safety and Environmental Management Monitoring Plan

MID shall monitor the contractor’s compliance to these Community Protocol, Safety and Environmental Management Guidelines during the implementation of the projects following Table A1.1.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Applies to</th>
<th>Proposed Mitigation Measures</th>
<th>Parameters to monitor</th>
<th>Frequency / means of verification</th>
<th>Monitoring</th>
<th>Achieved - Yes or No</th>
<th>Date</th>
<th>Name of person verifying</th>
<th>Signature of person verifying</th>
<th>Remarks: e.g. corrective action or defect notice issued etc</th>
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<tbody>
<tr>
<td><strong>MOBILIZATION PHASE</strong></td>
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<tr>
<td>Planning of work</td>
<td>Contractor</td>
<td>Contractor prepares Work Plan</td>
<td>Work Plan prepared by contractor</td>
<td>Each Month; Work Plan: a) prepared b) Approved.</td>
<td>MID Eng, and COW</td>
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<td>Initial Community Consultation</td>
<td>Contractor</td>
<td>Formulation of a Community Advisory Committee. Dissemination of Work plan</td>
<td>Community Advisory Committee created and MOU signed</td>
<td>Once. Signed MOU</td>
<td>MID Eng, and COW</td>
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<tr>
<td>Appointment of an CLEHSO/ESO</td>
<td>Contractor</td>
<td>CLEHSO/ESO appointed by the Contractor</td>
<td>Once. Evidence of appointment</td>
<td>MID Eng, and COW</td>
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<td>Material Requirement s</td>
<td>Contractor</td>
<td>Contractor abides by the Department of Mines and Minerals (within Min. of Mines, Energy, and Rural Electrification) requirements to obtain materials from sites that are approved with a Building Materials Permit (BMP). Acquire approvals from Resource owners</td>
<td>Building Materials Permit obtained or material drawn from approved BMP site. MOA signed between the resource owners and contractor</td>
<td>Once. Verify BMP obtained and material is extracted from approved BMP site. Grievances pertaining to the use of resources</td>
<td>MID Eng, and COW</td>
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<td><strong>IMPLEMENTATION PHASE</strong></td>
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<tr>
<td>Operation of equipment impacting air quality</td>
<td>Contractor</td>
<td>Maintain equipment to a good standard; Equipment shall be checked at regular intervals to ensure they are maintained in working order, checks shall be recorded by contractor as part of monitoring; Prohibit the use of equipment that causes pollution (i.e. visible smoke) at the site; If dust is carried towards residential areas or becomes problematic on-site, contractor to apply dust control measures.</td>
<td>Air quality, including emissions, dust, etc</td>
<td>Each time equipment are used. Visual inspection, if necessary measure the emissions with instruments</td>
<td>MID Eng, COW and Contractor</td>
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<td>Material Extraction</td>
<td>Contractor</td>
<td>No use of coastal areas identified as being part of a protected area (including the buffer zone of a protected area), a proposed protected area, or having conservation value, being habitat for rare or endangered aquatic species or birds, comprising part of the inter-tidal zone, comprising swamp or wetland, or including mangroves, as sources of graded coral material.</td>
<td>Materials only obtained from designated sites (locations)</td>
<td>Monthly - visual inspection / Review of extraction plan</td>
<td>MID Eng, COW and Contractor</td>
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<tr>
<td>Soil and coastal erosion</td>
<td>Contractor</td>
<td>Locate material stock-piles, borrow pits and camps only on unused land or non-agricultural land following consultation with land owners and village chiefs. Coastal Protection works, embankments and erosion prevention measures along coastline; e.g. Rip-rap, retaining structures, gabion baskets etc to be implemented wherever necessary for coastal stabilization; Where ever possible planting of indigenous plants along road corridor, river banks and coastal areas; Monitor embankments and coastal activities for signs of erosion during implementation period; and Not permit random and uncontrolled tipping of spoil, or any material. Tip sites are not to be permitted on the coastal side of the subproject road/wharf or on garden land or in areas used for livelihood production by villagers.</td>
<td>Loss of land and banks</td>
<td>Monthly / Visual inspection</td>
<td>MID Eng, COW and Contractor</td>
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<tr>
<td>Storage and handling of construction materials. Fuel and lubricants.</td>
<td>Contractor</td>
<td>Strictly control filling and re-fuelling, and perform the procedures to avoid leakage or spills; Store inflammable/chemical agents in waterproof and secure tanks, compounds or store rooms which will not be located in the vicinity of water courses or streams. The compounds/store rooms will include bund and secure fencing. Bund base and walls will be impermeable and able to store 110 % of the volume being stored; Storage areas prepared. Fuel and oil storage and handling procedures practiced and well understood.</td>
<td>Storage areas prepared. Fuel and oil storage and handling procedures practiced and well understood.</td>
<td>Initially once to approve storage and handling procedures, and then as required / Verify that storage and handling of</td>
<td>Contractor, MID Eng and COW</td>
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<td>Operation of equipment impacting water quality</td>
<td>Contractor</td>
<td>Ensure that the contents of any drums, tanks or vessels are clearly marked; Ensure that all fuel valves and trigger guns will be located so as to avoid interference and vandalism, and the same will be turned off and securely locked when not in use; Take all necessary measures to ensure that no contaminated discharges enter any drain or watercourses.</td>
<td>construction materials, fuel and lubricants meet these requirements.</td>
<td>Turbidity (Having sediment or foreign particles stirred up or suspended), Complaints from community</td>
<td>COW and MID Eng</td>
<td>Excellent</td>
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<td>Disposal of waste materials</td>
<td>Work sites areas, e.g. where works are</td>
<td>Prohibit the discharge of polluted or hazardous materials or chemicals to the ground or coastal waters; Store liquids in tanks or drums that are</td>
<td>Sites cleaned of materials. Materials dumped</td>
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<td>not able to spill or discharge to coastal waters; Construct temporary treatment and drainage systems to collect and discharge liquid wastes. Untreated waste shall not be directly discharged but shall be treated, at least to a primary level, in treatment ponds prior to discharge; Prohibit the dumping of unsanitary material, waste-water, chemicals, soil, waste oil and chemicals, fuel, lubricating oil etc. All waste materials to be collected and sorted as follows: (i) those that can be recycled; and (ii) those that need to go to an approved landfill site for disposal.</td>
<td>in approved sites</td>
<td>Waste being collected and disposed of to meet requirements</td>
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<tr>
<td>Clearing, removal and disposal of vegetation</td>
<td>Limit area to be cleared. Identify areas of significant vegetation. Areas to be defined by clear boundaries. 10 m wide buffer zones established around water courses. Equipment operators to understand boundaries. Vegetative material to be disposed of by communities (for fuel wood) or if an impediment to work, vegetative material may be burnt by clean fires.</td>
<td>Site cleared and vegetation removed according to EMP specifications.</td>
<td>Always when the activity is on-going / Verify that contractor’s actions meet the mitigation requirements</td>
<td>Contractor and COW</td>
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<tr>
<td>Presence of Workers impacting flora and fauna</td>
<td>Inform all workers about general environmental protection and the need to avoid unnecessary felling of trees; Specifically acknowledge that felling of trees, not required to be cleared for the project, is expressly prohibited; Impose sanctions on workers who are caught trapping, killing, poaching, or having poached fauna; Not permit, under any circumstances, the felling or removal mangroves; Not permit the establishment of Contractor’s or Sub-contractor’s camps, work-shops, rock crushers and material storage in any ecologically important sites</td>
<td>Complaints from communities</td>
<td>Weekly inspections / Verify that contractor’s actions meet the mitigation requirements</td>
<td>Contractor, and COW</td>
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<tr>
<td>Activity</td>
<td>Applies to</td>
<td>Proposed Mitigation Measures</td>
<td>Parameters to monitor</td>
<td>Frequency / means of verification</td>
<td>Monitoring</td>
<td>Achieved - Yes or No</td>
<td>Date</td>
<td>Name of person verifying</td>
<td>Signature of person verifying</td>
<td>Remarks: e.g. corrective action or defect notice issued etc</td>
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<tr>
<td>Noise</td>
<td>Worksites</td>
<td>Maintain all equipment exhaust systems and noise generating equipment in good working order and ensure that regular equipment maintenance is undertaken; Prohibit any earth work activities between 9 pm and 6 am in, or close to, villages; Prepare a schedule of operations in consultation with village chiefs and local communities for approval by the Engineer. The schedule shall identify the days on which there should be no work, hours of work for each activity, and identify the types of equipment to be used; and Deal, without delay, with any complaints regarding noise. In the event that the complaint cannot be resolved, the Contractor shall inform the Engineer.</td>
<td>Complaints from communities</td>
<td>At start of activities creating noise / Visual inspections, communication with communities</td>
<td>Contractor, COW</td>
<td></td>
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<tr>
<td>Discovery of archaeological and cultural sites</td>
<td>All excavation areas</td>
<td>Ensure that there are no Tambu sites, or other culturally or traditionally important sites, in proposed locations for site activities; Comply with all national and international standards in respect of preservation of historic and cultural sites and values; and In the event of unanticipated discovery of cultural or historic artefacts (both moveable and non-moveable), take all necessary precautions to protect the find, and immediately notify village elders, the COW and MID Engineers and a representative of the National Solomon Islands Museum (Tambu register). If continuation of the work may endanger the find, work shall be stopped until a solution for the preservation of the findings can be agreed upon.</td>
<td>The discovery itself, with the records and reports of the discovery of the archaeological and cultural site.</td>
<td>Each time discoveries occur / Notification of discoveries</td>
<td>Contractor, MID Eng and COW</td>
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<td>Activity</td>
<td>Applies to</td>
<td>Proposed Mitigation Measures</td>
<td>Parameters to monitor</td>
<td>Frequency / means of verification</td>
<td>Monitoring Achieved - Yes or No</td>
<td>Date</td>
<td>Name of person verifying</td>
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<td>Remarks: e.g. corrective action or defect notice issued etc</td>
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<tr>
<td>Public Safety</td>
<td>communities living adjacent to subproject</td>
<td>Consult with local communities in the event that access to a village has to be disrupted for any time; Use signs and other appropriate safety features to indicate that works are being undertaken; Ensure that the working area is kept free of debris, spoil, and any other material at all times; Erect traffic calming devices; Erect signage; Hold road/wharf safety awareness meetings with the communities living adjacent to subproject.</td>
<td>Traffic calming devices installed. Signs erected. Road/wharf safety awareness meetings held with adjacent communities.</td>
<td>Once a month / Verify traffic calming devices and signs installed. Verify road/wharf safety awareness meetings held. Community complaints</td>
<td>Contractor, and COW</td>
<td></td>
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<tr>
<td>Use of hazardous materials and Prohibited activities</td>
<td>Materials brought to site</td>
<td>Ensure that all hazardous substances are properly labelled with product name, weight, together with its formulation, direction of use and what is to be used for and treatment information. Contractor to display Material Safety Data Sheet/s (MSDS) in work areas; Contractor to abide by Appendix 5 - ADB Prohibited Investment Activities List included in the document ADB Safeguard Policy Statement, June 2009.</td>
<td>List of chemical substances and their hazard ratings. Hazardous substances are properly labelled MSDS for all hazardous substances</td>
<td>At start of work and whenever any hazardous compounds are to be brought to site.</td>
<td>Contractor, MID Eng and COW</td>
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<td>Workplace health and safety</td>
<td>Work sites</td>
<td>The contractor will provide workers with personal protection equipment, such as safety boots, reflective vests, helmets, gloves, and protective clothing and safety glasses if required; No drugs or alcohol are allowed on-site; Ensure there is a first aid kit on site; Erect warning signs, barriers, traffic cones and use traffic controllers when working on or close to the road pavement and wharf area according to the contract specifications; Control noise and dust; Provide detours as required.</td>
<td>Safety- and health standards of the workplace. Safety procedures and safety equipment on place. First aid equipment.</td>
<td>Spot checks and weekly inspections / Accident record.</td>
<td>Contractor, MID Eng and COW</td>
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<td>Activity</td>
<td>Applies to</td>
<td>Proposed Mitigation Measures</td>
<td>Parameters to monitor</td>
<td>Frequency / means of verification</td>
<td>Monitoring Achieved - Yes or No</td>
<td>Date</td>
<td>Name of person verifying</td>
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<td>Remarks: e.g. corrective action or defect notice issued etc</td>
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<td>Contractor Hiring Workers</td>
<td>Contractor and Community</td>
<td>Preference given for hiring work-force from Local communities; Participation of youths and women in the work-force is ensured; Necessary training for the Communities carrying out the work activities is provided.</td>
<td>Employment of Local people Community’s capacity to perform works</td>
<td>Monthly checking of employment records. Checking records from conducted training/s.</td>
<td>Contractor, MID Eng and COW</td>
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<td>COMMUNITY PARTICIPATION</td>
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<td>DEMOBILIZATION PHASE</td>
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<td>Clearance and rehabilitation</td>
<td>Constructio n sites</td>
<td>All solid waste to be removed from sites and disposed in approved landfills; All contaminated soil to be removed and disposed in an environmentally sound manner to the satisfaction of the Engineer; All sites to be rehabilitated and restored to original condition; Drainage to be re-established; Above to be included as part of Final Inspection before payment is made.</td>
<td>Sites cleared, waste removed, sites landscaped and re-vegetated.</td>
<td>At completion of construction / Visual inspection jointly with all parties</td>
<td>Contractor, MID Eng and COW</td>
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<td></td>
<td>Worker camps</td>
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<td>Contractor’ s work areas</td>
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ANNEX 4: COMMUNITY ADVISORY COMMITTEE GUIDELINES

1 INTRODUCTION

A. Background

The transport sector facilitates the exchange of goods and services and interaction between communities. The quality and efficiency of transport has a significant impact on economic and social welfare. The development and management of a reliable, appropriate, sustainable and affordable transport sector in Solomon Islands is essential for economic development and the delivery of services to all parts of the country. Rural areas will be unable to develop without access to transport services.

Community participation is one of the important milestones for ownership and sustainability of any infrastructure development. Any infrastructure system cannot be built without involving the community members in every step of the planning and implementation process. The affected community must be consulted informed and involved.

This guide shall be implemented in conjunction with the Community Protocol, Safety Environment Management (CPSEM) Guidelines for LBES, the Environmental Management guide for machine based maintenance contracts (MBMC) and the CEMP guide for Tier 3 activities. This CAC guideline helps promote ownership and participation among communities affected by the project. It is a compulsory requirement and contractors must adhere to it. Following this important requirement, contractors are required to sign a declaration form to commit them towards implementing the guidelines. MID/CPIU officers will monitor compliance as well as providing support to contractors and communities with the implementation of the CAC guideline.

B. Policy Framework

National Transport Plan Vision. An effective transport infrastructure and transport services to support sustain economic growth and social development in Solomon Islands.

Mission. To enhance the prosperity and participation of the community by providing an integrated, efficient and affordable infrastructure and transport system that is supported by ethical, professional, and valued staff.

Aim of the Consultation and Communication Plan
a) To provide a process for participation of stakeholders particularly the beneficiary communities in project activities such as planning and design, construction, awareness raising programs, and monitoring;
b) To obtain information about the opinions, needs and priorities of stakeholders, as well as their reactions to proposed community development, gender, environment and other mitigation measures;

c) To obtain the cooperation of beneficiary communities and stakeholders in activities required to be undertaken for project planning and implementation;

d) To establish a clear, easily accessible and effective complaints and grievance procedure; and

e) To ensure transparency in all project activities.

2 COMMUNITY ADVISORY COMMITTEE

A. Objectives

a) To develop a joint responsibility and ownership of transport facilities in the community and to facilitate smooth implementation of any infrastructure maintenance, rehabilitation civil work.

b) Assist MID in ensuring that the affected community and resource owners affected by its LBES, MBMC and Tier 3 activities have to take a sense of ownership and sustainability of transport infrastructure facilities.

B. Establishment

a) The establishment of the CAC is in line with the MID Development Mission Statement to enhance the prosperity and participation of the community to the overall subproject implementation and management at community level on a voluntary basis.

b) The establishment of the CAC shall take effect after contract signing and within thirty (30) days after LBES contractors' first training has been completed. Expenses for the establishment are included in the contract as a provisional sum and as such shall be at the expenditure of the contractor.

c) The Mid Works Officer shall after sixty (60) days of first training, evaluate the results of the CAC establishment and produce a brief evaluation report with copies to the social safeguard team, the contractor and the chairperson as required by Section 2 (b) of the guideline.

C. Membership

a) The membership of the CAC shall be selected from among village/tribal chiefs, elders, women representatives and land owning groups residing within the subproject locations.

b) The selection of candidates to represent the village/tribe, chief, elders, women representative and land owning groups, shall be nominated by at least two (2) persons residing within the subproject location during first community consultation meetings.

c) The selection for members of the CAC shall have no less than five (5) and no more than twenty-one (21) members depending on the number of communities residing within the contractor’s section of road and who shall be elected during the CAC’s inaugural meeting.
d) The Secretary of the CAC shall be appointed by the committee and his/her term in office shall be the same to that of the CAC.

The committee shall consist of a:

a) Chairperson;
b) Vice-Chairperson;
c) Secretary and; and
d) Members.

And such other members including women representatives, the Committee shall deem necessary.

a) MID representative shall be an ex-officio member of the CAC;
b) Every member shall have one vote at any general meetings; and
c) The Committee shall have the power to refuse membership to an applicant, where it is considered such membership would be detrimental to the aims, purposes or business of the Committee. The reasons for refusal should be discussed at a Committee meeting and recorded and shared with the person refused membership.

D. Term of Office

i. Term of Office

The term of office for a single CAC shall be determined by the subproject level with the exception of the LBES which shall not be less than one (1) year and no more than three (3) years, except in circumstances expressed under section 7 (Dissolution).

ii. Termination

a) Any member of the Committee may resign his/her membership from the Committee by giving to the secretary of the Committee a written notice to that effect;
b) Any member who fails to attend three (3) consecutive meetings may be terminated as a member of the CAC.
c) The Committee may by resolution passed at a meeting thereof, terminate or suspend the membership of any member, if in its opinion his /her conduct is prejudicial to the interests and objectives of the Committee, PROVIDED THAT the individual member (as the case may be) shall have the right to be heard by the General Committee before final decision is made. If necessary, there shall be right to appeal to the Grievance Redress Mechanism.

3. FUNCTIONS

A. Functions of the Committee

The functions of the Committee shall include:

a) Responsible for solving problems/issues arising between the contractor and the community;
b) Hold three (3) meetings per year as described in section 4 (a) of the CAC guideline.
c) With Contractor support, prepare and submit reports, minutes of meetings on CAC business in relation to subproject implementation;
d) Advise the contractor on matters affecting environment and social well-being of the community as the result of the subproject construction;
e) Provide every necessary support for the contractor whenever necessary as long as the contractor reciprocates and pays the expenses to organize and run the meetings;
f) Liaise with Provincial Government and Ministry of Infrastructure Development through Clerk of Works on matters of MID interest;
g) Deal with customary land and other traditional issues that may arise from the community as the result of the subproject construction;
h) Provide enabling environment for the participation of women in the subproject implementation and management at community level;
i) Where necessary the CAC may facilitate a Memorandum of Understanding (MOU) between MID, Contractor and the community for services and or materials that may be required by the contractor for purposes of road or other Infrastructure Development;
j) Encourage and support community participation in overall subproject implementation;
k) Make local communities aware of the importance and purpose of Road Safety Rules, Regulations and road corridors;
l) Maintain regular contacts with Social Safeguard team in the Ministry of Infrastructure Development for advices on socio-economic issues, such as Marketing opportunities, Gender and HIV/AIDS;
m) Ensure no labor, time and resources shall be owed, borrowed, loaned, hired, used or leaned without payment from the contractor with the agreed sum to be verified by the CAC or its delegated representative.
n) Ensure no contractor shall engage child labor and physically unfit persons in LBES employment.
o) Keep a register of grievances

B. Role of the Chairperson

The chairperson shall carry-out all administrative duties required of him/her from time to time as specified below:

a) Plan, organize and conduct community consultation meetings in villages within subproject location;
b) Report to MID Provincial works officer on matters of urgency affecting the contractor’s work;
c) Inform communities on changes that may have approved by the committee.
d) Provide community feedback and simple monitoring information to MID on the exact type of works completed and quality of works carried out by the contractor;
e) Ensure that all committee members are functioning at all times for activities delegated to them;
f) Responsible for all liaison work between CAC office, the communities, the contractor, Provincial Government, MID and stakeholders.
g) The Vice chairperson may assist with above roles in the absence of the Chairperson.

h) Delegate responsibility to another member if the Chairman will be absent for longer than normal periods. This delegation should be authorized by a meeting of the Committee.

C. **Role of the Secretary**

a) Facilitate meeting dates, times and venues in consultation with the Chairperson;

b) Prepare agenda, minutes of previous meeting and carry-out all such duties required by the secretary for facilitating the meeting;

c) The secretary shall ensure all proceeds of meetings shall be recorded, typed and distributed to CAC members no later than (7 days) after the meeting.

d) Ensure copies of CAC business are stored in safe custody and forward copies of the same to MID Works Officer.

e) Perform other duties that may be delegated by the Chairperson from time to time.

D. **Role of Members**

a) To attend all meetings as may be required by the Chairperson in accordance with section 4 (a).

b) Inform communities on changes as approved by the committee meetings;

c) Take leading role in community activities; and

d) Assist with other duties as may be delegated by the chairperson.

E. **Role of MID Works Officer**

(a) The MID Works Officer shall conduct periodic monitoring and evaluating the performance of the CAC.

(b) Prepare and submit reports of the CAC activities as and when required.

(c) Attend CAC meetings and advise on MID matters of interest in relation to contractor’s performance.

(d) Liaise with communities on issues that may have affected the wellbeing of the communities as the result of the contractor’s performance.

(e) Ensure the accountability and the transparency of the contractor’s provisional sum is manageable at all times and in compliance to Section 5 (b) of the guideline.

(f) Ensure any payment incurred shall be in accordance to items specified under section 5 (c) and (d) of the guideline.

(g) The MID works officer shall keep copies of all CAC proceedings and stored in safe custody.

4. **COMMITTEE MEETINGS**

a) The Committee shall meet at least three (3) times each year for General Meetings, however the chairperson may call an extra ordinary meeting whenever required;

b) The quorum for a meeting shall be one more than half of members attending the meeting;

c) The committee shall be responsible to members at all times;

d) The members attending the meetings shall not ask for monitory benefits;
e) Members shall be given at least seven (7) days’ notice of any meeting unless it is deemed an emergency meeting;
f) In the absence of the Chairperson, the vice-chairperson shall preside over a meeting.

5. CONTRACTOR AND USE OF PROVISIONAL SUM
a) The contractor shall be responsible for the establishment and the ongoing operation of the CAC with the oversight of MID works officer.

b) MID Works Officer and MID Safeguard Officer will monitor the contractor’s compliance on monthly bases as stipulated under contractor’s Agreement.

c) MID Works Officer shall review invoices and statements for CAC activities before payments can be processed and upon the approval of the Permanent Secretary of the Ministry of Infrastructure Development.

d) The contractor shall provide reasonable expenses such as travelling allowance in the event of private transport being used to and from home for purposes of attending CAC business, light lunches during meetings, cost of venue for the meetings, administrative expenses (typing of minutes, communication and stationary/printing).

e) The contractor shall responsible for disclosing the terms of any agreement to provide community labour, or separate sub-contracts (skilled workers), in writing to the CAC chairperson or delegated representative within one (1) week of mobilisation or final negotiation. This will address the issue of under payment of the agreed sum previously negotiated and agreed upon.

f) “All agreements to provide works or services between the contractor, members of the community and families & individuals are to be recorded in writing and be signed by the CAC Chairman or his/her delegated officer and recorded in the minutes book of the CAC kept by MID Works officer."

6. ALTERATION OF THE GUIDELINE
a) Proposals for amendments to this Guideline or dissolution must be delivered to the secretary in writing. The secretary in conjunction with other members shall then decide on the date of a meeting to discuss such proposals, giving at least three (3) weeks clear notice; and

b) Any amendment to this Guideline must be agreed by at least two thirds of members present and voting at any general meeting.

7. DISSOLUTION OF THE COMMITTEE
(a) The Committee may dissolve after three (3) years from the date it came into effect as in section 10 (Adoption of the Guideline) and is proposed and agreed during the committee’s final general meeting at the end of the third years.

(b) A new election may be required after thirty (30) days of the dissolution of current committee and shall follow the same selection process described in section 2C (a) (b) and (c) of the guideline.
8. ADOPTION OF THE GUIDELINE

This Guideline was adopted by members of the:…………………………..Community Advisory Committee presented at the Inaugural Meeting held at:………………………Village on the:………..day of:………………..20….

Signed: Village/Tribe

<table>
<thead>
<tr>
<th>Designation</th>
<th>Name</th>
<th>Signature</th>
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<tbody>
<tr>
<td>Chairperson</td>
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<tr>
<td>Vice Chairperson</td>
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<td>Secretary</td>
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Annex 4.1 - CAC Selection Form

MINISTRY OF INFRASTRUCTURE DEVELOPMENT

COMMUNITY ADVISORY COMMITTEE

SELECTION FORM FOR MEMBERSHIP

Pursuant to Section C, clause (b) of the Community Advisory Committee, We, the undersigned hereby, select:

Mr/Mrs:……………………………………………………………………………………………………of:………………………………………………..*Village/Community/Tribe to be our member representative into the:…………………………………………………………….Community Advisory Committee.

Name ……………………………………………………..Signature

………………………………………………………

Name ……………………………………………………..Signature

………………………………………………………

Dated this ………………………day of:………………………………………201X

• Delete whichever is not applicable
• Please note the membership of women into the Community Advisory Committee is important
MINISTRY OF INFRASTRUCTURE DEVELOPMENT
Community Advisory Committee

Sample Meeting Minutes

Purpose of Meeting

Project

Prepared By                         Phone

Place of Meeting                    Date

Present
1.
2.
3.
4.
5.
6.
7.

Absent with Apology
1.
2.
3.

Opening prayer said by ………………………………………………………………………………………………………

Welcome Address………………………………………………………………………………………………………………

Meeting start at …………………………………………………………………………………………………………………

Meeting end at …………………………………………………………………………………………………………………
<table>
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<tr>
<th>Agenda Item</th>
<th>Actions</th>
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**Recommendation**

- ……………………………………………………………………………………………………………………………………………

- ……………………………………………………………………………………………………………………………………………

**Resolution**

- ……………………………………………………………………………………………………………………………………………

- ……………………………………………………………………………………………………………………………………………

**Conclusion**

- ……………………………………………………………………………………………………………………………………………

- ……………………………………………………………………………………………………………………………………………

*Date for the Next Meeting:*  …………………………………………

Signature………………………………………                                               Date ……………………………………………
Annex 4.3 - Community Grievances Form

MINISTRY OF INFRASTRUCTURE DEVELOPMENT
COMMUNITY ADVISORY COMMITTEE

Grievance/Complaint Form

Complaints and grievances submitted by villages/communities/tribes/Province/Resource owners/contractors on the work of this subproject and in pursuant to Section 4 (a) of the Community Advisory Committee Guideline shall be forwarded to.............................................................. Community Advisory Committee, by filling up the Grievance Complaint Form.

Name of Community Advisory Committee..................................................................................................................

Name of Provider of Service ..........................................................................................................................................

Nature of Grievances/Complaint ....................................................................................................................................

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Signature of Complaint                                                        Title                                                        Date
....................................................................................................................................................................................

Signature of Service Provider                  Title                  Date
....................................................................................................................................................................................

Signature of CAC Representative            Title              Date

Plan for disposition (What should/is being done about the complaint)..................................................................................................................

....................................................................................................................................................................................

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....................................................................................................................................................................................

Complaint resolved? Yes...........No..............Date......................

Resolution of Complaint:
....................................................................................................................................................................................

....................................................................................................................................................................................

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(......................................................)

Signature of Chairperson Community Advisory Committee                     Date..................
Annex 4.4 - Grievance Register

GRIEVANCE REGISTER

All grievances as received through the grievance form shall be recorded into a log book call the grievance register by the Secretariat of CAC.

<table>
<thead>
<tr>
<th>Date</th>
<th>Issue reported</th>
<th>Action Taken</th>
<th>Result</th>
<th>Present Status</th>
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</thead>
</table>
Annex 5: Tier 2 MBMC Environmental Management Guidelines

General

Tier 2 activities – machine based maintenance contracts (MBMC) could have similar type works as LBES but additionally use heavy machinery such as graders, steel wheeled rollers, water trucks or other machinery to maintain the existing road surface. Clearing and grubbing jobs should fall in this category. These are not ‘prescribed activities’ and do not require environmental assessment or development consent, nevertheless they require an environmental due diligence report and development of construction environmental management plan (CEMP) in order to mitigate and manage impacts and risks.

The scope of works included in Tier 2 activities includes:

- pothole patching;
- fixing edge breaks;
- scarifying and ripping-up of deformed areas;
- rip, grade and replacement of all unsuitable base material;
- compacting base materials;
- removing loose materials;
- gravel fill material approved by engineers;
- approved sealing protocols and applications whenever required; and
- construction of side or line drainage.

This guideline covers provisions applied to MBMC which includes community participation and development of a site specific CEMP by the contractor based on the template appended as Annex 5.1. Provisions for community participation and CEMP are compulsory requirements for all MBMCs.

The Objective

The objective of this guideline is:

- to ensure MBMC carried out to agreed standard environmental practice minimizing environmental risks; and
- to facilitate the meaningful participation of the affected communities where roads are being serviced.

---

6 Tier 2 activities are usually exempt from development consent under Environment Act 1998.
**Legislative Framework**

Environmental impact assessment and management in the Solomon Islands is provided for under the Environment Act of 1998 and the accompanying regulatory instrument, the Environment Regulation, 2008. The Act and regulations are administered by the Environment and Conservation Division (ECD) of Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM).

As per the LBES contracts, each MBMC activity will require a project description to be prepared and submitted to ECD. The activity description will comprise the location of the project, project type, project design/scope of works, material requirements, schedule of work, and the contract provisions/requirements for the CEMP. Upon receiving the description, ECD will screen the activity and make a recommendation either for exemption of development consent, or requirement for development consent (usually with some level of environmental assessment). As Tier 2 activities are small scale, within a limited footprint, and the minor environmental impacts can be readily mitigated and/or managed, they do not usually require environmental assessment. ECD will issue an exemption, accepting that the CEMP is appropriate management tool for the risks.

**Institutional Arrangements**

**Ministry of Infrastructure Development.** The Ministry of Infrastructure Development through its Central Project Implementation Unit (CPIU) will prepare the tender documents for the MBMC, and is responsible for procurement and supervision of the overall activities. The procurement phase includes stages for review and approval, to ensure that the costs anticipated by the contractor with regard to the MBMC guidelines are reasonable. CPIU safeguards staff will assist in evaluating contractors’ tenders and recommendations for contract awards.

In the supervision phase MID through its engineers is responsible for monthly inspections and monitoring of the contractor’s compliance with the guidelines. MID is responsible for the provision of advice to contractors; advising contractor on issues needing attention and ensuring on-going assisting with community participation. A Clerk of Works (COW) employed by MID would be carrying out supervision and monitoring on day to day basis. The MID through the COW is to ensure that the contractor does not commence activities until requisite approvals have been received from MID and/or CPIU and other SIG authorities. Environmental Staff from the CPIU will carry out a monitoring on quarterly basis for all MBMCs.

The COW will be employed by MID / CPIU and deployed to the respective provinces where the projects are located. He/She will provide communication back to MID on contractors compliance and performance. Upon mobilisation of the contractor, the COW and MID Engineers will carry out induction of the contractor at the project site. COW will provide weekly inspection and reporting of contractors work plan and TOR. COW advises the contractor on activities needing attention and when necessary reports back to MID. Any grievances arises from communities shall be taken up by COW to MID engineers once it is clear that the issue is beyond the contractors capacity.

**The contractor.** The contractor is responsible for implementing all community, environmental, health and safety actions included in the Guidelines and relevant clauses in the tender documents. During the mobilisation phase the contractor is responsible for carrying out an initial community consultation.
Among others the consultations will include the contractor’s work plan disseminated to the community advisory committee (CAC). It is important that the contractors maximise community involvement within the project vicinity. The community consultations need to be formalised with a Memorandum of Understanding (MOU) signed between the Contractor and the CAC. Mobilisation of work cannot be authorised by MID until the MOM and minutes of the first meeting of the CAC have been reviewed by CPIU which has delegated authority from MID to manage the contractor and the scope of works.

223. In cases where materials are required, the contractor is responsible to sign a MOU with the resource owners and acquire a Building Material Permit (BMP) from the Ministry of Mines, Energy and Rural Electrification (MMERE). To assist with the implementation of the project the contractor will be required to assign a Environment Safety Officer (ESO) whose responsibilities will include:

- Ensuring that the contractor complies with the clauses in the contract documents in respect of community, environment, health and safety;
- Coordinating with MID /CPIU in respect of community consultation;
- Facilitating consultation with the affected villages, various stakeholders, and ensuring smooth implementation of the project;
- Liaison between the MID/CPIU and the provincial administration and the communities to ensure effective implementation of the project;
- Ensure Gender and Local Involvement balance in the contractor workforce;
- Maximizing the participation of women in consultations and implementation of the works and
- Implementation of the CEMP.

Contractors will be responsible for compiling CEMPs based on the guide appended as annex 1. The CPIU will approve the updated CEMPs prepared by the Contractors before physical earthworks commences. As part of the CEMP, the contractors will develop an emergency response plan and quarry extraction and rehabilitation plan. Under the supervision of the CPIU, the contractor will undertake its own monitoring. The contractor will also be responsible for implementing all environmental, health and safety actions. CPIU will carry out internal monitoring on a regular basis as set out above. The ECD may also be involved in external monitoring on a sample basis.

**Environmental & Conservation Division.** The ECD will be tasked also to assist in the auditing of the implementation of the environmental management plans (EMPs) and ensure that environmental management and mitigation of the project are undertaken to a good standard.

**Ministry of Mines, Energy and Rural Electrification.** The Department of Mines and Minerals (DMM) is located within the MMERE and is responsible for issuing BMP for extraction of sand and aggregate. The contractor will need to abide by the Mines and Minerals Act of 2008 regarding sourcing materials from sites that have approved BMP. MMERE with MID/CPIU will work to ensure all requirements regarding the BMP are met by the Contractor.

**Communities and resource owners.** Communities play an important role in the maintenance of roads and bridges through MBMCs. Therefore, it is important their involvement is strengthened and recognized so that they can feel ownership of the infrastructure.

**Community advisory committee.** It is the joint responsibility of the Contractor and communities to create CAC(s) that will work with the contractor and MID/CPIU when necessary. The committee will comprise leaders from the vicinity of the project site and the committee will sign a
MOU with the contractor. It is important; the committee also ensures participation of youths and women. The CAC will be the advocate of the communities. The role of the CAC is as follows:

- Coordinate and implement work program with the contractor;
- Supervise community participation;
- Provide support to contractor;
- Deal with issues affecting the community;
- Ensure communities respect the road reserve area to avoid disturbance to community activities such as crop planting and road side markets;
- Assist in arranging meetings with the contractor and MID/CPIU, facilitating consultations with, and providing information about, affected communities and environmental impacts;
- Provide community feedback and simple monitoring information to MID on the exact type of works completed and quality of works completed by the contractor.
CONTRACTOR'S ENVIRONMENTAL MANAGEMENT PLAN

Signed by: ____________________________ Date: __________

(Signature, name and position of the Contractor's Representative)

 Approved by: __________________________ Date: __________

(Signature, name and position of the Employers Representative)
1. **Introduction**
   - Company description-[*brief description of company details*]

   - Scope of the CEMP- [*Insert the scope of your CEMP to clarify what it covers*]

   - Declaration of conformity to national legislation: [*The Contractor declares that all necessary measures will be implemented to reduce the risks of accidents and assures the general safety and health at the work site, and that all relevant laws related to occupational safety and health of the Government of the Solomon Islands will be respected and observed*]

2. **Project Description**
   - Project location-[*Describe the location of the project and layout maps showing road corridor, haul routes, campsites, workshops and gravel sites*]

   - Scope of works-[*brief description of the earth works including machineries and workforce ]

   - Construction work program-[*Summary of the work program*]

3. **Environmental and Safety provisions**
   - Environmental values, Potential Impacts and Mitigations

   *Air-*[*Description of its environment values, Potential adverse or beneficial impacts of the project activities on the identified environmental values and proposed environmental protection objectives and control strategies*]
Safeguard Procedures Manual Annexes: 7

Water: [Description of its environment values, Potential adverse or beneficial impacts of the project activities on the identified environmental values and proposed environmental protection objectives and control strategies - e.g. erosion control in exposed areas such as borrow pits, site camps and temporary construction work to avoid impact on water quality]

Noise and Vibration: [Description of its environment values, Potential adverse or beneficial impacts of the project activities on the identified environmental values and proposed environmental protection objectives and control strategies]

Gravel Extraction: [Potential adverse or beneficial impacts of gravel extraction on the environment and proposed environmental protection objectives and control strategies, e.g. measures to open and reinstate gravel borrow pits to avoid erosion and mitigate dust control]

Waste: [Potential adverse or beneficial impacts of the project waste on the environment and proposed environmental protection objectives and control strategies - Storage and handling waste rules and procedures will be applied to assure the safe handling and storing of hazardous materials such as fuels, oils, acids, etc... Specify by activity if relevant]

• Health and Safety

Hygiene and sanitation: [Describe what measures will be implemented to assure hygienic and sanitary working conditions, i.e. safe drinking water, pit latrines, storage of food items, etc...].

Protective equipment: [Describe what protective equipment will be used to assure the protection of the workers. Specify by activity if relevant]

HIV / AIDS and other STD's: [Describe what measures will be implemented to sensitize and protect the workers and communities from sexually transmitted diseases such as HIV / AIDS and STIs].

First aid and evacuation plan: [Describe what measures will be implemented to provide first aid in the eventual case of accidents or emergencies]

Traffic accommodation plan: [Describe the lay-out of temporary traffic signage for the following four situations: maintenance work on the road verge, maintenance work on one
road lane, maintenance work along the road centre line and maintenance over the full road width/closure of the entire road using a bypass.

Public access and local mobility. [describe control measures following disruption to public access, use of signs, construction debris kept free, haul routes identified in consultation with local community and resource owners]

4. Environmental Monitoring

Monitoring programme [Insert a summary of your 'Environmental management and monitoring programme' and attach a copy of the Programme]

Training and sensitization of the workers [Describe training activities to be carried out for the workers and local population in the area of environmental protection, mitigation measures and safety. Indicate who will be responsible for training delivery]

Record keeping [Insert a summary of the records you will keep in order to ensure (and demonstrate) your EMP works effectively]

Roles and responsibilities [Insert a summary of the roles and responsibilities you give to staff members to ensure your CEMP is implemented effectively]

Reporting [Procedures and periodicity of reports that will be submitted to the client regarding general environmental issues, general safety, accidents and outbreak of epidemic diseases]

EMP review [Insert details of how you will ensure your CEMP is kept up-to-date and continually improved]
### Annex 1: Monitoring Program
**Contract No and Name:** 
**Contractor:**
**Environmental Monitoring Program**

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<th>Near Bodies</th>
<th>Back and Sides Protection</th>
<th>Remarks and Comments</th>
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### Annex 2: Monitoring Matrix

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<th>Activity</th>
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<th>Proposed Mitigation Measures</th>
<th>Parameters to monitor</th>
<th>Frequency / measure of Verification</th>
<th>Monitoring responsibility</th>
<th>Achieved Yes or No</th>
<th>Date of Verification</th>
<th>Remarks</th>
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Annex 6 – Sourcing of Road Construction Materials Guidelines

Note: This Guideline was originally prepared for MID under the Solomon Islands Road Improvement Project in 2012 and has been updated to reflect the current institutional arrangements through Central Project Implementation Unit and requirements of current and future projects/programs.

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APPENDICES

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Appendix 2 – Aggregate Extraction Guideline (AEG) 2: Quarry Development
### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
</tr>
<tr>
<td>AEG</td>
<td>Aggregate extraction guideline</td>
</tr>
<tr>
<td>AEP</td>
<td>Aggregate extraction plan</td>
</tr>
<tr>
<td>BMP</td>
<td>Building materials permit (from MMERE)</td>
</tr>
<tr>
<td>CLO</td>
<td>Community Liaison Officer (of CPIU)</td>
</tr>
<tr>
<td>CPIU</td>
<td>Central Project Implementation Unit (of MID)</td>
</tr>
<tr>
<td>EA</td>
<td>Environmental assessment (process)</td>
</tr>
<tr>
<td>ECD</td>
<td>Environment and Conservation Division (of MECDM)</td>
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<td>EIS</td>
<td>Environmental impact statement</td>
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<tr>
<td>EMP</td>
<td>Environmental Management Plan</td>
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<td>LBES</td>
<td>Labour-based Equipment Supported maintenance</td>
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<tr>
<td>M&amp;E</td>
<td>Monitoring and evaluation</td>
</tr>
<tr>
<td>MID</td>
<td>Ministry of Infrastructure Development</td>
</tr>
<tr>
<td>MECDM</td>
<td>Ministry of Environment, Climate Change, Disaster Management and Meteorology</td>
</tr>
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<td>MMERE</td>
<td>Ministry of Minerals, Energy and Rural Electrification</td>
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<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
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<tr>
<td>NTP</td>
<td>National Transport Plan</td>
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<tr>
<td>PCERP</td>
<td>Post Conflict Emergency Response Project</td>
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<tr>
<td>PEIRM</td>
<td>Pacific Emerging Issues Response Mechanism (under Government of Australia financing)</td>
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<td>QMP</td>
<td>Quarry Management Plan</td>
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<tr>
<td>SBD</td>
<td>Solomon Islands Dollar</td>
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<tr>
<td>SIG</td>
<td>Solomon Islands Government</td>
</tr>
<tr>
<td>SIRIP</td>
<td>Solomon Islands Road Improvement Project</td>
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<tr>
<td>SPM</td>
<td>Safeguards Procedures Manual (of MID)</td>
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<td>Technical assistance</td>
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<td>TPPU</td>
<td>Transport Policy &amp; Planning Unit (MID)</td>
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<td>TSDP</td>
<td>Transport Sector Development Project</td>
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<td>RRP</td>
<td>Report and Recommendations to the President (ADB document)</td>
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</table>
Definition of Terms

Adverse environmental impact means the negative effects of an activity on the environment (including social environment and community) as defined by the Environment Act 1998 and Regulations 2010;

Aggregate means rock, coronus, gravel or stone (including spoil) won, extracted or removed from the earth or rivers or streams for the purposes of construction;

Aggregate extraction plan means the plan prepared by the contractor and approved by MID (or its delegated authority) governing the site specific development of an area for the purposes of extracting river gravels or coronus material, the methods for the extraction, the volume of material to be extracted, and the means for rehabilitating or restoring the site;

Delegated authority (of MID) means an entity established to assist and/or support MID in the implementation of a transport project (such as a project management unit, project implementation unit, project coordination unit or similar);

Extraction means the winning or removal, by manual or equipment-based methods, of any material including gravel, coronus material, stones, sand, shingle or other material, for construction purposes, from the earth or river or streams (including beds-thereof);

Mitigation means the identification and proposition and implementation of means and methods to avoid, reduce, minimize or compensate for adverse environmental impacts;

Quarry development means the identification, establishment, and use of an area set aside for the extraction, or otherwise winning, of material to be used for construction purposes;

Quarry management plan means the plan prepared by the contractor and approved by MID (or its delegated authority) governing the site specific development of an area for the purposes of extracting material, the methods for the extraction, the volume of material to be extracted and the means for rehabilitating or restoring the site; and

Site restoration means the rehabilitation of any site used for gravel or coronus extraction (including quarries) to its former condition or to the conditions agreed in the approved plan or with consent of the owner.

Weights and Measures

kg – Kilogram
mm – Millimeter
m, m², m³ – Meter, square meters, cubic meters
km, km² – Kilometer, square kilometer
ha – Hectare
1. **Introduction**

1. The Government of Solomon Islands (SIG), with assistance from development partners, is improving the efficiency of the national and provincial transport networks and services by upgrading rural roads, constructing bridges and river crossings, constructing new and rehabilitating existing wharves, establishing a program for routine maintenance, and improving the capacity of Ministry of Infrastructure Development (MID).

2. A number of projects and programs have been implemented since mid-2000s including Post Conflict and Emergency Rehabilitation Project (PCERP); Solomon Islands Road Improvement Project (SIRIP 1 and 2); Domestic Maritime Support (Sector) Project; and Transport Sector Development Project (TSDP).

3. MID is the executing agency for these projects and early projects (SIRIP 1 and 2 and DMSP) were managed by the Project Management Capacity Building Unit. With the transition to sector support and TSDP, project management became the responsibility of the Central Project Implementation Unit (CPIU).

4. Appendix 10 of the Report and Recommendations of the President (RRP) for SIRIP 1 required the development of aggregate extraction guidelines. The purpose of the guidelines was to formalize the consultation required with land/resource owners, identify the environmental effects of extraction and required measures for mitigation of identified impacts and remediation of extraction sites, and be in adherence with existing practices for aggregate extraction. While the guidelines were initially prepared for use in SIRIP, in the absence of national guidelines for sourcing road construction materials, they have been updated to reflect MID’s current project implementation arrangements and could be used or applied in future transport development projects.

1.1 **Aggregate Sources and Processes**

5. In Solomon Islands aggregate used in road construction is derived from two sources: river gravels and coronus material.

1.1.1 **River Gravels**

6. Rivers transport material that is produced by erosion in their catchments. The amount of gravel entering a river system depends on river catchment factors such as: (i) area and topography; (ii) rock type; (iii) geological processes (including earthquakes); (iv) climate (rainfall, wind, temperature variation) and climatic events (i.e. cyclones and tsunamis); (v) vegetative cover; and, (vi) land use.

7. The distance that gravel is transported before being deposited depends on particle size and water velocity. Coarser material (such as gravel) is deposited in the riverbed where the grade of the river decreases and this is often where the river emerges from hills onto plains. As the river grade flattens, its velocity decreases and it deposits progressively finer material. Some gravel material is carried to the coast and this forms an important source of sand and silt material for the cycles of beach erosion and deposition.

8. During a flood, the dynamics of a river system change and gravel that has previously been deposited can be reworked from the riverbed or eroded from its banks and transported by
floodwater further downstream. Typically, the transportation and deposition of gravel is a complex process and the riverbed itself acts as both storage and a supply source. Excessive erosion in the catchment of a river can cause a cycle of riverbank erosion. This cycle will occur when natural gravel supply exceeds a river’s ability to transport it through the river system. Where a river is actively fed with material from erosion in its catchment the excessive supply of material will cause river banks to erode as typically water carrying sediment has greater erosive power than clean water. In this situation, the riverbed builds up with gravel deposits on river beaches leading to the formation of islands. This in turn forces the river water to flow towards the banks which increases bank erosion.

9. If gravel is removed from a riverbed, the river will try to re-establish the same grade by eroding the up-stream bed and banks. Unless material is supplied quickly enough from the catchment, the upstream bed will erode. As soon as the level of the bed is lowered, bank erosion will occur and the effect of this erosion can be transmitted for considerable distances upstream. Furthermore, when a riverbed is lowered, the channel can carry more water than when the river is flowing bank full. The resulting increased energy will make bank erosion downstream more likely. Eventually a reasonable equilibrium may be re-established with the bed once again at its equilibrium grade but the river channel may have changed by that time. In the absence of a sufficient supply of gravel from the catchment, equilibrium is likely to be re-established through increased bank erosion due to increased flow velocities.

1.1.2 Coronus Deposits

10. Coronus is an extremely durable material that can be excavated from coral deposits which have been formed in areas where the coastline has changed or the sea has receded, exposing coral reefs or beds which have subsequently died.

11. In Solomon Islands such coral deposits can be found in many of the islands, but not all are economically viable as sources of construction material. For example in Guadalcanal there are two large coral deposits/pits that are mined for coronus; White River and King George VI.

2. Impacts from Aggregate Extraction

2.1 Impacts of Extraction

12. The Environment Act defines extraction of aggregates, stones or shingle as a “prescribed activity” which requires application to Environment and Conservation Division (ECD) for development consent. This process can require the preparation of an environmental assessment. In considering the application the Director of the ECD will determine whether a public environmental report (PER) or environmental impact statement (EIS) is required or whether the Director decides to dispense with the assessment requirements.

13. In terms of environmental impacts and ability to avoid or mitigate the impacts associated with aggregate extraction, a hierarchy of favoured extraction locations can be identified as: (i) land-based; (2) river based; and (3) beach based.

14. Land-based borrow pits and excavation of coral deposits are often used for obtaining coronus materials, which Coral deposits that are viable to extract for construction materials are not available in every province.
15. In provinces where these materials do occur, they are often located close to the coast in areas considered valuable for human uses. Large-scale extraction of coronus materials can render the land unusable for other activities because its level has been lowered and topsoil removed. In some cases the water table may be exposed and/or the area used for rubbish and for these reasons rehabilitation of borrow pits is considered central to best practices.

16. Removal of river gravel for construction materials can interfere with aquatic ecology and hydrological flows. Depending on the size of the river, volume of material to be extracted, and where the material is to be obtained from, removal of gravels could have an effect on the stream or river bed as well as channel morphology, including river widening and increased flow velocity, causing bank instability or erosion.

17. Removal of beach gravels can accelerate coastal erosion while excessive removal of beach material can alter littoral drift, creating accretion in some areas and thereby changing the coastal geomorphology. While this is a practice undertaken by some Provincial Departments of Infrastructure Development in the past, alternative sources have been used more recently. These guidelines do not promote the use of beach gravels as a source of construction material as this could segue into sand mining or removal of living coral from adjacent reefs.

18. During detailed design for SIRIP inadequate land-based aggregate sources were found, therefore the second least intrusive option for sourcing construction materials was considered to be use of river gravels, which could be undertaken with minimal environmental impact provided that certain principles were applied to the extraction. These guidelines have been prepared to mitigate the effects of using river gravels as a source of material.

19. As noted in the environmental assessments prepared under SIRIP 1 and 2 and TSDP, there are a number of rivers and streams from where construction materials can be obtained. These rivers are recharged with material after heavy rain and are considered the most practicable and sustainable way of sourcing aggregates. While each environmental assessment contains a generic environmental management plan (EMP), this needs to be updated by the contractor once the sources of material have been identified.

2.2 Mitigating Adverse Environmental Effects of Aggregate Excavation

20. Sources of aggregate (gravel and coronus) and potential quarry sites will be identified during detailed design. In order to reduce impacts associated with extraction activities contract documents will specify that (i) sites must be identified in consultation with MID, local land/resource owners and communities and an appropriate Memorandum of Understanding (MOU) between the contractor on behalf of MID and the land/resource owners must be obtained; (ii) the contractors will be responsible for setting up dedicated crusher plants at sites approved by MID (or it’s delegated authority); and (iii) for all sites, contractors will ensure that they acquire appropriate environmental permits (development consents) from Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM), if required, and building materials permit (BMP) from the Ministry of Mines, Energy and Rural Electrification (MMERE), before sourcing the material.

21. The contractor will be required to identify sources and prepare a sustainable extraction plan, in compliance with these guidelines, for all sources of material and spoil that will be used in construction and/or rehabilitation of transport projects.

22. An aggregate extraction plan (AEP) will be prepared by the Contractor and submitted to MID (or it’s delegated authority), which will ensure that the plan is implemented. The AEP will be prepared during the detailed design process by the contractor (when quantities and type of
materials etc are known with more certainty) and will identify sources of aggregate that adheres to these guidelines. The EMP will also be updated at this time. MID (or its delegated authority) approve and monitor implementation of the updated EMP and AEP.

23. The principles set out below provide general guidance on matters that should be considered when carrying out gravel or corinus excavation in order to avoid, remedy, or mitigate any adverse environmental effects. All persons carrying out aggregate excavation activities need to be thoroughly familiar with the following principles, as well as the more specific operational guidelines identified in the Appendices (AEG 1 and AEG 2) in addition to any specific conditions that may be stipulated by MECDM in issuing the development consent or MMERE in issuing of the BMP. The contractor’s knowledge and understanding of these principles will be a major factor influencing the environmental effects of any work carried out.

24. **Avoid the discharge of sediment into water bodies.** When carrying out excavation, plan and implement the works so that the discharge of sediment into adjacent water bodies (coast, streams, river channels) is avoided as far as practicable. Maintain a set distance (depending on the site limitations) between the works site and water bodies, so that the likelihood of accidental discharges is minimised. Placement of rock or structures on river banks or beds should be undertaken in a manner that minimises the discharge of sediment into water.

25. **Isolate the works site to avoid adverse off-site effects.** Use diversion bunds to direct clean storm-water runoff safely away from the works site if possible. Manage the site so that storm-water runoff from the disturbed area is handled separately from runoff above the site. Use natural vegetation or sediment control devices to filter or treat any storm-water runoff if possible, prior to discharging it off-site (refer to the specific requirements of the EMP).

26. **Avoid the discharge of contaminants into water bodies.** Avoid oil and fuel discharges, spillage, and spray drift onto riverbeds or into the river. Refuelling activities and fuel storage should not occur on the riverbed or within 20 metres of the flowing water’s edge or anywhere else where spillage of these contaminants may enter into water. Machinery should be regularly maintained so that leakage from hoses and pipes are unlikely and spray and fuel containers should be disposed of safely off-site.

27. **Avoid or mitigate effects of excavation on bird nesting.** Aggregate excavation activities should not occur during bird nesting seasons where habitats have been identified. Works should not commence in these areas until nesting and/or rearing is complete.

28. **Maintain ecological values.** Plan and implement extraction activities so that ecological values are avoided, remedied or mitigated. Consider the protection of wetlands, riparian margins, aquatic and terrestrial habitats as part of the works programme.

29. **Avoid Tambu areas, archaeological or historical sites.** Adequate planning and consultation should be undertaken to ensure that archaeological and/or tambu sites are avoided. If an unknown archaeological or historic feature is disturbed, work should cease immediately until authorisation from the National Museum (Tambu Register), Ministry of Culture, and MECDM has been granted.

30. **Maintain appropriate river bed levels and bank stability.** For extraction of river gravel, all such activities should be planned and undertaken with the objective of improving river flood flow capacity while maintaining appropriate bed grades and bank stability (and not causing erosion or instability). To achieve this it is required that approval and advice is obtained from local consultations and from the MID (or its delegated authority).

31. **Minimize in-stream works.** For extraction of river gravel, in order to limit degradation to water quality it is important to keep machinery out of water unless necessary for critical works or access to the work site. Avoid in-stream works during fish spawning and migration periods.
32. **Avoid or mitigate effects of excavation on fish passage.** Extraction of river gravel should not impede fish passage during or following completion of the works. If the activity is likely to result in a barrier to fish passage, some form of mitigation should be provided.

33. **Consideration of emergency contingencies.** In case of flood or other emergencies while works are still underway, consider matters such as access to and from the site, notification of appropriate personnel, security of vehicles, gear and equipment.

34. **Critically assess operational methodology.** Always use the correct type of machinery to carry out the operation effectively, efficiently, and with minimal environmental impact. Timing of operations should take into account such matters as the nesting season for native birds, and spawning and migration seasons of fish. Also consider the most appropriate time of the year to carry out work (rainy season earthworks may be unsuitable). Check the weather forecast daily, and alter the work programme accordingly if necessary. At the end of each day’s work, leave the site with all necessary runoff controls in place, and machinery/equipment well clear of waterways.

35. **Mitigation measures.** To mitigate the impacts from extraction sites it is recommended that in addition to the preparation of the site specific AEP by the contractor, that bid and contract documents specify that:

- Limits to volume of material extracted from any one source will be set in light of the ability of the source to re-generate and likely environmental impact as a result of the extraction. As with any extraction, there are limits after which localized or more extensive environmental impacts may occur. This might be due to facilitation of erosion or sedimentation which could alter the immediate environment or impact directly upon flora and fauna;

- Access to extraction sites will be negotiated with land owners and users, in the event that an access is purpose built, should the owner not want to keep the access, the contractor will be responsible for reinstating the land to its pre-project condition;

- Any areas identified as being part of a protected area (including the buffer zone of a protected area), a proposed protected area, or having conservation value, being habitat for rare or endangered aquatic species or birds, comprising part of the inter-tidal zone, comprising swamp or wetland, or including mangroves, will not be permitted to be used as sources of aggregate;

- A number of sites for extraction are preferred over a large volume being taken from one location;

- In respect of maximum volumes to be removed from any one source, extraction will be managed in accordance with these guidelines and conditions of approval for the development consent, EMP and AEP;

- Any extraction sites and borrow areas close to roads will be located at least 15 m outside the right-of-way of roads, extraction from the sides of roads in a way that could undermine the roads will not be permitted;

- Site and pit restoration will follow the completion of works in full compliance with all applicable standards and specifications;

- Any topsoil excavated from the top of sites and borrow pit areas will be saved and reused in re-vegetating the sites and pits to the satisfaction of the MID (or its delegated authority);
• For extraction of river gravels, any rivers or streams that are used as a fresh water source for villages should not be used as a materials source as gravel extraction will cause increased sedimentation and turbidity. In cases where such rivers or streams must be used, alternative water sources, such as drilled or dug wells, upstream of extraction sites and works, must be provided for the villages;

• For extraction of river gravels, use machinery such as excavator or backhoe. Dredging or similar operations for the winning of construction material will not be permitted;

• Additional extraction sites and/or borrow pits will not be opened without the full restoration of those areas no longer in use; and

• The excavation and restoration of sites and borrow areas, as well as their immediate surroundings, will be undertaken in an environmentally sound manner to the satisfaction of the MID (or its delegated authority). Sign-off to this effect by MID (or its delegated authority) will be required before final acceptance and payment under the terms of the contract.

2.3 Aggregate Extraction Plan

36. As per AEG 1 (set out in Appendix 1), the contractor shall identify each source of aggregate to be used and prepare an AEP covering each site/source. The AEP shall be prepared in compliance with these guidelines and the approved EMP, and cover all sources of material and spoil that shall be used. The contractor shall submit the AEP to the MID (or its delegated authority) who will review and approve the AEP and ensure that the AEP is implemented by the contractor. The AEP must be approved by MID (or its delegated authority), MECDM (if required as part of development consent conditions) and MMERE prior to any extraction or removal of material.

37. The AEP shall include the following:

• A description of the existing environment of the site/source (including physical, biological, and social characteristics) including a statement as to the likely total volume of material, and for river gravels how quickly the material is re-generated;

• A statement as to the impacts of the extraction, addressing the provisions set out in the EMP, and including description of the volume/quantities, type of material, method of extraction, period of extraction, and proposed mitigation and/or rehabilitation measures, and a statement as to how the foregoing complies with these guidelines;

• A statement of the consultation undertaken in the vicinity of the extraction site, including discussion of the resource owners/users as to mitigation and rehabilitation. The contractor shall note that all sites must be identified in consultation with MID, MMERE, MECDM, local land owners and communities, and that MID (or its delegated authority) shall lead this consultation process;

• This should include a summary of any MOU entered into between the contractor, on behalf of MID, and the resource owners; and

• Date of application for and approval of development consent and BMP, and a statement of any conditions or additional environmental requirements of MECDM and MMERE, if required; and
• In compliance with the EMP, a statement as to how accidental spills, accidents or other emergency situations will be handled (including specification of persons responsible and reporting procedures).

3. **Operational Guidelines for Aggregate Extraction**

38. These guidelines (including AEG 1 and AEG 2 in the Appendices) set out the requirements for undertaking aggregate excavation. However, meeting these requirements does not absolve persons undertaking gravel and coronus excavation from any common law liabilities.

3.1 **Before Commencing Gravel or Coronus Excavation**

39. Before commencing any gravel or coronus excavation activities, any contractor wishing to undertake such activities will need to have the appropriate authorisation and consider the following aspects:

• Whether the contractor has updated the EMP and this has been approved by MID (or its delegated authority);
• Whether the gravel or coronus excavation is the subject of an approved AEP;
• Whether the contractor has received development consent for the extraction from MECDM and obtained a BMP from MMERE;
• Whether agreement/approval has been obtained from the owner of the resource and an appropriate MOU has been signed; and
• Whether permission has been given by relevant resource owners for both access to the site and material transportation.

40. MID (or its delegated authority) will need to inspect the prospective area of work at least three working days before excavation begins. This is to ensure that the excavation activities will not cause adverse environmental effects, or unduly disturb any areas of significant flora, fauna or habitat.

41. Where the activity poses, or is likely to pose a risk to the public, the contractor shall erect warning signs adjacent to the site where the excavation will take place. These signs shall be removed on completion of the operation or when the activities on the site are no longer a danger to the public.

42. Where suitable vehicle and/or equipment access is not available, access tracks shall be provided by the contractor in negotiation and on agreement by the land owner. The access tracks should be sited so as to avoid significant earthworks or vegetation removal.

43. Appropriate erosion and sediment controls shall be installed on access tracks to prevent sediment contaminated storm-water from entering adjacent water bodies (including stream/river channels and/or the foreshore and coast) as per the EMP.
3.2 **During Gravel or Coronus Excavation**

44. Gravel or coronus excavation activities shall not impede public access to and along existing roads or access-ways, the foreshore and coast, or streams/rivers except for temporary restrictions necessitated by operational health and safety requirements.

45. The contractor shall avoid operations during bird nesting seasons where habitats have been identified. Works shall not commence in these areas until nesting and/or rearing is complete.

46. Gravel or coronus excavation activities shall cease immediately, should any tambu site, archaeological or historic site be discovered as a result of the activity. Excavation activities can only resume once appropriate authorisation is received. The contractor shall advise both the village chief and National Museum (Tambu Register) when any tambu site, archaeological or historic site is discovered. This is to ensure the protection of archaeological, historic, or tambu sites. The measures set out in the EMP must be complied with.

47. Excess vegetation, soil, slash or other debris shall be disposed off-site where practicable, and not placed where it could readily enter any water body or floodway. Temporary stockpiles shall be kept to a practicable minimum size to avoid or minimise any obstruction or diversion of flood flows. Stockpiles shall be located at least 20 metres from a water body.

48. The contractor shall ensure that re-fuelling activities or fuel storage does not occur within 20 meters of a water body or where spillage of these contaminants can enter into water. It is the responsibility of the contractor (and consent holder) to employ methods that avoid or minimise the spillage of fuel or other contaminants. This may require the provision of appropriate security and containment measures as set out in the EMP.

49. The contractor shall ensure that all machinery and material is removed to a safe site at the end of each working day or when the site is left unattended.

50. Excavation activities should not occur on Sundays or public holidays unless under special circumstances (i.e. emergency works).

51. Operations undertaken under the approved AEP will need to comply with any specific conditions outlined in the approval of the AEP, including any conditions or additional requirements of MECDM and MMERE.

52. The contractor shall avoid unnecessary machinery entering water i.e. mechanical works within water should be restricted to gravel removal and access to the work site.

53. For river gravel extraction: (i) river/stream crossings by machinery or trucks shall be avoided, when alternative access is not available, contractors are required to notify the MID (or its delegated authority). Stream crossings or travel along the wet parts of the bed can then occur provided that these do not take place during fish spawning and hatching season or during low flow conditions; (ii) the excavation shall not cause damage to any riverbanks, protection works (if they exist or are required), access, or any other works relating to the flow of the river; (iii) appropriate machinery for the job shall be used to carry out work as efficiently as possible, with minimal track movement and/or pushing of material within flowing water; and (iv) where excavation is required below normal water level, the excavation site shall be separated from the flowing water by a bund of at least one meter in height and one meter in width.
3.3 Once Works have been Completed

54. The excavation site shall be rehabilitated so that it either (i) meets the previously agreed requirements (as per the MOU) of the resource owner; or (ii) complements the existing landscape, aesthetic and amenity values of the surrounding area. This rehabilitation shall be to the satisfaction of the MID (or its delegated authority).

55. All plant, machinery, equipment, stockpiles and other material associated with excavation activities will be removed from the site at the completion of the operation.

56. At the completion of works there shall be no depressions or holes left on the excavation site that may trap fish during higher flow conditions.

57. Access tracks that existed prior to the excavation commencing shall be left undisturbed or where that is not possible, be reinstated once excavation activities have been completed. Access tracks that were provided as part of the extraction activities shall be removed, and the land re-instated, unless agreement to their retention has been agreed with the land owner.

4. Monitoring, Recording and Reporting

4.1 General

58. The contractor shall keep adequate records of all materials removed, which shall be available on request.

59. The contractor shall submit to the MID (or its delegated authority), a record of the volume of material removed during the period of operation, together with the evidence of payment of royalties to the resource owners (if required by the conditions of an MOU). The record shall be supplied in accordance with: (i) the requirements of any conditions; (ii) the requirements of these guidelines; and (iii) within 10 working days after the end of each month. These records should specify the volume of material removed and indicate the proportion of material removed in respect of the total volume of material to be extracted for which approval has been granted.

60. The contractor – or person nominated by the contractor for the specific purpose - is responsible for overall supervision of daily operations. The contractor, or supervisor, shall ensure that the requirements of the AEP and EMP are appropriately implemented and complied with. In the event that the contractor, or supervisor, identifies a problem (including non-compliance with the EMP and/or AEP), this shall be notified to MID (or its delegated authority) in writing, along with corrective actions necessary to resolve the problem. In the event that the corrective actions are not implemented or the corrective actions are not adequate to resolve the problem, the MID (or its delegated authority) shall issue a stop-work order.

61. All reporting shall follow the process established in the EMP and further elaborated in this section of the guidelines.

62. The contractor will prepare and submit the following reports:

   — Monthly environmental and safety reports – documenting the safety and environmental audits undertaken in the month preceding;
— Summaries of the audits and monthly reports will be incorporated by CPIU into its reporting to MID and ADB; and

— Reports of any notifications made to the CPIU in respect of incidents, emergency situations, disputes, accidents involving workers or staff engaged by the contractor, whether on-site or off-site, as per the requirements of AEG 1 and AEG 2 of these guidelines and of the approved EMP.

63. The contractor will ensure that all relevant environmental and safety information and requirements as set out in the Contract and the approved EMP (and any other plans there-under) is adequately communicated to staff and sub-contractors, and ensure that staff and sub-contractors understand the nature in which they must comply with such specifications and all laws and regulations in respect of environmental protection and health and safety.

64. The contractor will be responsible for checking and reporting any sub-contractor compliance with EMP, AEP or QMP, the Contract and all laws and regulations in respect of environmental protection and health and safety. The MID (or its delegated authority) will undertake spot-checks and monitoring of contractor compliance and keep records for external monitoring as required by any development partner.

4.2 Reporting of Accidents or Emergencies

65. In the event of an accident or emergency, the contractor or nominated supervisor will:

— Report accidents to relevant local authorities and notify the MID (or its delegated authority) immediately of any dangerous occurrences or accidents which result in death, or serious bodily harm or incapacity for more than three days. Reporting may be oral in first instance but will be followed by a comprehensive written report within 24 hours of the accident or occurrence;

— Notify the MID (or its delegated authority) immediately of any dangerous occurrences or accidents which result in death, or serious bodily harm or incapacity for more than three days. Reporting may be oral in first instance but will be followed by a comprehensive written report within 24 hours of the accident or occurrence;

— Notify the MID (or its delegated authority) of the resolution or treatment of accident or emergency.
Appendices

Appendix 1 – Aggregate Extraction Guideline (AEG) 1: Gravel and Coronus Extraction

Appendix 2 – Aggregate Extraction Guideline (AEG) 2: Quarry Development
Appendix 1 - Aggregate Extraction Guideline (AEG) 1: Gravel and Coronus Extraction

1 Objective
66. The objective of this AEG is to provide planning and construction guidelines for the extraction of river gravels and/or coronus materials with particular regard for the need to avoid or mitigate adverse environmental impacts from such work. In each case a proposal to extract aggregates for a new source or site must be compared in terms of economic cost and environmental cost with the alternative of obtaining aggregates from existing sites, sources or quarries.
67. This AEG shall be read in conjunction with the updated and approved EMP for the subproject.

2 Planning and Consultation
68. The contractor shall identify sites that may be used for the extraction of material for the purposes of construction of the subproject. All such potential extraction sites will be agreed by MID following consultations with the land/resource owners. MID will facilitate all such consultations and will assist with the obtaining of appropriate MOUs.
69. The following specification is suggested:
   - The contractor shall, in consultation facilitated by MID (or its delegated authority), obtain agreement from the resource owners to extract gravel from any river or river mouth, prior to commencement of any extraction work. If required by the terms of an MOU, the contractor shall pay any relevant fees or royalties to the resource owners.
   - The contractor shall identify the total volume of gravel or coronus extraction to be undertaken for any one project in order to produce the required volume of pavement and concrete aggregates that are required. The corresponding length, breadth and depth of area over which gravel extraction or coronus removal, is likely to be undertaken shall be made available to the public during consultation.

3 Aggregate Quality
70. Prior to scheduling river gravel or coronus extraction for any subproject, sufficient physical tests on representative samples of aggregate shall be undertaken to ascertain that gravel or coronus deposits within reasonable proximity to the project will in fact yield gravel of sufficient quality for the proposed road re-construction.
71. The constituents of river gravel and coronus, including igneous, metamorphic and sedimentary rock, sand and silt shall be determined in order to assess the proportion of material contained within a gravel or coronus deposit that is in fact useable for the road subproject.
72. The feasibility of separating useable material from unsuitable material shall be assessed and the percentage of useable material shall be taken into account in assessing the extent of extraction as required in Item 2 above.
73. The following design directive is recommended:
   - The contractor shall undertake such investigation and testing as is necessary to ascertain the quality of river gravels or coronus located within reasonable proximity to the site of the project and shall estimate the quantity of useable aggregates as a
proportion of the total volume of gravel to be extracted. This information shall be documented and used in the compliance with Items 1 and 2 of this AEG.

— The results of the analysis to comply with Items 1 and 2 shall be compared with the environmental and economic cost of obtaining aggregate from land based quarries in order to select the most appropriate aggregate source in terms of total economics including environmental economics.

4 Aggregate Extraction Plan

74. For every subproject where gravel or coronus is to be extracted, an AEP shall be prepared by the contractor. The plan shall identify the extremity of the river and/or the area of land over which extraction is to be undertaken and shall define the depth of excavation and the proximity to the banks of any river of the proposed excavation. It shall define all existing trees and vegetation within 10 metres of the riverbank or extraction site and all other topographical features including buildings and fences.

75. The AEP shall define the condition of all plant and machinery to be used in the extraction process. It shall also describe likely impacts of the extraction including short-term downstream effects (including any effect on potable water supplies) of river gravel removal.

76. The AEP will define proposed stockpiles of extracted materials and the proposed working area for loaders and trucks. It shall also define the location of vehicular access from any public road to the gravel deposit.

77. The AEP shall be submitted to and approved by the MID (or its delegated authority) and MECDM and MMERE.

78. The following specification is recommended:

— The contractor shall prepare an AEP for the extraction of gravel from any river or the removal of coronus form a defined area.

— Where the extent of any river from which gravel is to be extracted is specified the extent of extraction shall be limited by the specified length. Where the extent is not specified the contractor shall define the required extent and show same on the AEP.

— Where coronus is to be removed, the area shall be defined and marked out. The depth of the extraction shall be defined and measured during the works.

— The AEP shall define the depth of excavation, proximity of excavation to any riverbank, and all topographical features including houses, fences and vegetation within 10 meters of any riverbank. It shall also define the location of proposed stockpiles of extracted materials, and the proposed working area for loaders and trucks. The plan shall also show the location of vehicular access from any public road to the gravel deposit. All temporary drains and silt retention fences installed to trap sediment run off from the stockpiles and working area shall be shown.

— Where crushing of the aggregate is to be undertaken in proximity to the river, the location of the crusher shall be shown. The location of stockpiles of crushed materials together with all temporary drains and silt fences for sediment retention shall be detailed. Reject crushed material shall not be returned to the river. It shall be disposed of in defined waste excavation disposal areas.

— The AEP shall be submitted to and approved by MID (or its delegated authority) and MECDM and MMERE. No gravel shall be extracted from any river or coronus.
removed from any location, unless the contractor has prepared an AEP and said AEP has been approved by MID (or its delegated authority).

— Despite the issue of consent for extraction from the resource owners and an approved AEP, no gravel extraction shall proceed when a river is in flood or during periods of heavy or seasonal (or cyclonic) rains.

— No gravel or coronus extraction may be undertaken other than during daylight hours. Gravel or coronus extraction is not permitted on Sundays or public holidays.

5  Vegetation Protection

79. All vegetation within a band 10 metres wide measured from the river bank on each side of the river shall be carefully protected throughout gravel extraction activity. No trees shall be removed from such a band.

80. The following specification is suggested:

— The contractor shall protect all vegetation from damage or disturbance by gravel extraction works within a 10 meters wide band measured from the riverbank on each side of the river at any extraction site. The removal of any trees within the 10 meter wide band is prohibited without the written direction of the MID (or its delegated authority).

6  Protection of River Banks

81. Throughout gravel extraction activities all riverbanks shall be protected from damage. No excavation of gravel material shall be undertaken in proximity to a riverbank such that instability of the bank will occur. In any case no excavation shall be undertaken closer to the toe of any bank than a distance equal to twice the height of the adjacent bank.

82. Should any damage occur it shall be immediately repaired with permanent materials to the complete satisfaction of the MID (or its delegated authority).

83. Riverbanks may not be excavated to form access ramps into the river. If such ramps are necessary they shall be formed by ramping excavated river gravel against the river bank to form such an access ramp. At the completion of extraction any access ramp shall be removed and the material spread evenly over the adjacent riverbed.

84. Any damage to riverbanks shall be forthwith repaired through installation of protection works such as gabions.

7  Condition of Plant and Machinery

85. All plant, vehicles or machinery used within the river or on access roads to the river, site or in working areas for stockpiling or crushing shall be in good condition with no leaking fuel and/or lubricants including oil and grease.

86. A suggested specification for plant and machinery is:

— The contractor shall ensure that all plant, vehicles and machinery used in relation to gravel extraction works are in good condition with no leaking fuel and/or lubricants including oil and grease.

— The contractor shall submit to the MID (or its delegated authority) as part of the AEP (and based on the approved EMP) a spill contingency action plan and shall have on site at all times an oil spill emergency containment kit.
If any leak of fuel, oil or grease occurs the contractor shall immediately remove any relevant item of plant, vehicle or machinery from the site of the works and may not return such item to the site until all leaks have been repaired.

8 Minimising Downstream Adverse Environmental Impacts

87. All practicable steps shall be taken to prevent an increase in the level of turbidity downstream of the extraction works. Such steps may include the construction of diversion channels, bunds with upstream settling areas, and/or other silt control and screening systems that will minimise increased downstream turbidity.

9 Potable Water Supplies

88. No extraction works shall be undertaken within a distance of 1 km upstream or 200 metres downstream of any town or village water supply intake system.

10 Fuel Storage and Re-fuelling

89. No fuel storage area or refuelling of plant, vehicles or machinery shall be located within or adjacent to any river or within any river flood plain. All fuel storage areas shall be bunded to prevent the escape of spilled fuel or lubricants. All oil traps, drains and site restoration shall be in accordance with measures set out in the approved EMP.

90. The contractor shall ensure that fuel storage areas are located at an elevation above any likely flood level. All fuel storage areas and refuelling activity shall be undertaken within a banded area to prevent the escape of spilled fuel or lubricants. Access to the banded area shall be protected by an appropriate concrete lined drain which shall discharge through a purpose built oil or grease trap prior to discharge into a grassed swale that shall lead to a natural water course.

11 Warning Sign

91. A warning sign shall be erected at each extraction site where as a result of extraction the site is or is likely to be a danger to the public. Such signs shall be erected whenever the riverbed is likely to be a danger to fishers and others who may use the riverbed from time to time.

12 Tambu and Archaeological Sites

92. Should any tambu or archaeological sites be discovered during any stage of gravel extraction works such work shall cease immediately and National Museum (Tambu Register) and MECM notified forthwith.

93. On no account shall extraction work continue until authorised by the National Museum and MECM and as advised by MID (or its delegated authority).

94. The National Museum shall arrange an evaluation of the site in association with archaeologists before making any decision as to whether or not extraction works may proceed.

13 Safety at River Mouths

95. The contractor shall ensure that any gravel, sand or coronus extraction work at or near river mouths that are subject to tidal influence shall not be undertaken at any time without the presence on site of a trained observer whose function will be to warn workers against tidal surges. The observer shall be stationed in an appropriate vehicle or temporary structure located at an elevation above likely tidal surges.

Safeguard Procedures Manual Annexes: 27
96. The observer shall be equipped with a battery operated loud speaker with sufficient volume to be able to warn workers or other persons of approaching tidal surges.

97. The observer shall also be in constant radio contact with the appropriate authorities (i.e. contractor’s head-quarters and the Police).

14 Site Restoration

98. At the completion of gravel or coronus extraction for any one subproject the riverbed or site is to be restored to an even profile. All gravel heaped up during the process of removal shall be spread evenly over the riverbed or site, or spread into any diversion channel.

99. All access ramps shall be demolished and the material spread evenly over the riverbed or site.

100. All plant, machinery and vehicles and any temporary structures shall be removed from the riverbed or site immediately on completing operations.
Appendix 2 - Aggregate Extraction Guideline (AEG) 2: Quarry Development

1 Objective
101. The objective of this AEG is to prescribe the safety requirements for the development and operation of quarries, if required for the project, as well as to define procedures and works that shall be used to mitigate adverse environmental effects. These guidelines shall be read in conjunction with the updated (and approved) EMP prepared for the relevant subproject.

2 Planning and Consultation
102. During the planning of earthworks, and if required by the project, potential quarry sites shall be identified. The potential sites shall be discussed during public consultations in regard to the subproject. All such consultations shall be managed by MID and be facilitated by MID (or its delegated authority) and the CPIU.

3 Land Use and Acquisition
103. In the event that the land to be used for a quarry is not to be subject to an appropriate MOU, the purchase or lease of land for quarry development shall be undertaken in terms of the procedures defined in Land and Titles Act and any requirements in respect of land acquisition and resettlement (LAR) of any development partners that are providing financing for a project. If required, a LAR plan (following SPM Annex 11) shall be prepared.

104. The contractor shall identify quarry sites that may be used for the construction of the project. All such potential quarry sites will be agreed by MID following consultations with the land/resource owners. Such potential sites shall be identified on plans drawn to an appropriate scale and the plans shall be displayed and discussed during public consultations.

4 Site Plans
105. Site plans for quarry development shall be included in drawings issued for tender and the specification shall define the requirements of the contract in relation to quarry development and operation. The following design directives shall apply:

106. It is desirable that no quarry boundary is located within 500 meters of a public area or town or village nor within 300 meters of any isolated dwelling. The contractor shall provide site plans of potential quarry sites, such plans shall show existing level contours, access road, natural watercourses, and other relevant topographical features.

107. The area defined for quarry operation shall be based on the volume of aggregate to be quarried and hence the extent of quarry operation. It shall also provide the area necessary for stockpiling stripped overburden, the establishment of a crusher and screening plant, the stockpiling of crushed aggregate and the installation of storm-water cut off drains, silt retention ponds and staff amenities.

108. In the construction specification the designer shall draw the contractor's attention to the need for consideration of the visual environment in the development of the quarry management plan, and to adopt progressive restoration work as quarry development proceeds.
5 Quarry Management Plan

109. Prior to commencing any physical works on site, a quarry management plan (QMP) shall be prepared by the contractor and approved by the MID (or its delegated authority). The QMP shall have due regard for the following:

110. The following specifications are suggested:

— Prior to commencing any physical works on site the contractor shall prepare a QMP and shall submit this to the engineer for his information and comment. The QMP shall have due regard for the following:

— Show the extent of overburden stripping and the stockpiling of same for later site restoration.

— Show the details and location of surface water drainage from the quarry site and the silt retention pond that will be constructed to settle silt and soil contaminated water prior to its discharge to a natural watercourse.

— State details of pond maintenance and the method of loading and transporting settled material to a waste soil disposal site as per the EMP.

— Show details of catch drains installed to intercept overland flow of surface water to prevent its discharge into the quarry area.

— State safety precautions to be implemented.

— Show facilities such as guardhouse, amenities block and other facilities to be constructed.

— Show location of aggregate stockpiles.

— List plant and equipment to be used in the development and operation of the quarry.

— Show the site of the proposed magazine for the storage of explosives.

— On no account shall quarry development works commence until a QMP has been submitted by the contractor and approved by MID (or its delegated authority). Thereafter all quarry operation shall be the entire responsibility of the contractor and shall be carried out in terms of the agreed QMP.

6 Visual Impacts

111. The visual impact of quarry development on the environment shall be taken into account when preparing the QMP. So far as is possible the quarry shall be screened from view by the use of existing topography and trees.

112. The following specification is proposed:

— In preparing the QMP the contractor shall so far as is possible minimize the visual impact of quarry development. Existing topography and vegetation shall be used to screen quarry operations as indicated in the typical details shown in the drawings.

— During development and operation of the quarry the contractor shall progressively reinstate areas of the quarry as they are worked out utilizing overburden and topsoil previously stripped from the quarry area to landscape and reinstate appropriate vegetation.
7 Safety Provisions

113. The following provisions shall be made in the operation of any quarry for the safety of all employees or persons on site:

- A daily register is to be maintained identifying all personnel who are engaged in or about the quarry.
- All persons engaged in the operation of the quarry shall be trained and have sufficient knowledge of and experience in the type of operation in which they are engaged.
- All persons engaged in the operation of the quarry shall be adequately supervised.
- Approved lighting shall be provided in inside working places where natural lighting is inadequate to provide safe working conditions.
- All personnel engaged in quarry operations shall wear a protective helmet of approved type at all times when on the quarry site.
- All personnel shall wear protective footwear while engaged in quarry operations.
- All employees engaged in operations on a quarry face at a height greater than 1.5 meters above the level of the quarry floor or bench floor shall be attached at all times to a properly secured safety rope by means of a safety belt.
- All persons whose duty it is to attend to moving machinery in or about any quarry shall wear close fitting and close fastened garments. Their hair shall be cut short or securely fixed and confined close to their head.
- All boilers, compressors, engines, gears, crushing and screening equipment and all moving parts of machinery shall be kept in a safe condition. Every flywheel and exposed moving parts of machinery shall be fitted with safety screens or safety fenced as appropriate.
- All elevated platforms, walkways and ladders shall be provided with adequate hand or safety rails or cages.
- Machinery shall not be cleaned manually while it is in motion nor oiled or greased while in motion.

114. Should any of the above safety measures be ignored or inoperative at any time then the engineer shall direct that quarry operations cease until all safety measures are provided and are in operating order.

8 Provision of First Aid and Health Provisions

115. At every quarry there shall be provided the following first aid equipment:

- A suitably constructed stretcher with a warm, dry blanket.
- A first-aid box equipped to a standard acceptable to the Ministry of Health.

116. The quarry manager shall at least once every working week personally inspect the first-aid equipment to ensure that it complies with the requirements of this specification. Any supplies used from the first-aid box shall be replaced forthwith.

117. A person trained in first aid to the injured shall be available at the quarry during all operational periods of whatever nature.
118. At every quarry a sufficient number of toilets and urinals shall be provided for the use of employees and shall be properly maintained and kept in a clean condition.

119. At every quarry a supply of potable water, sufficient for the needs of the persons employed, shall be provided. If persons are employed in places remote from the source of water supply, suitable clean containers of potable water shall be provided for their use.

120. Suitable facilities for washing shall be provided and maintained in a clean and tidy condition to the satisfaction of the employer, and those facilities shall be conveniently accessible for the use of persons employed in or about the quarry.

9 Quarry Manager

121. The contractor will employ a manager who is experienced in all aspects of quarry operation and in particular safety procedures shall control every quarry. The manager shall be personally responsible for ensuring that all safety facilities are available and that safety procedures are followed.

122. A suggested specification is as follows:

   — The contractor shall nominate an experienced quarry manager in the submission of the tender for the works. The quarry manager shall have a recognized current “A” grade quarry manager’s surface certificate and a recognized current quarry shot firer’s certificate.\(^8\)

   — In the submission of the quarry manager’s credentials with the tender documents, the contractor shall ensure that the credentials include certified true copies of the following documents: (i) Grade quarry manager’s surface certificate; (ii) Quarry shot firer’s certificate; (iii) References from previous clients or employers demonstrating experience in - the design and layout of quarries including the layout of benches, faces, access roads, drainage and crushing plant, the methods of working quarry faces with particular reference to face stability and the safety of persons employed in or about the quarry, the safety of the public at large, the provision for and application of first aid.

123. The quarry manager’s duties shall include:

   — Within two hours immediately before the commencement of the first working shift of the day in any part of the quarry, inspect every working place and travelling road, and all adjacent places from which danger might arise, and shall forthwith make a true report of the inspection in a record book kept for the purpose at the quarry. The record book shall be accessible to the engineer and the persons employed in or about the quarry.

   — At least once in every 24 hours examine the state of the safety appliances or gear connected with quarrying operations in the quarry, and shall record the examination in the record book.

   — Once per week carefully examine the buildings, machinery, faces, benches, and all working places used in the quarrying operations, and shall forthwith after every such examination record in writing in the record book his opinion as to their condition and safety and as to any alterations or repairs required to ensure greater safety of the persons employed in the working of the quarry. The manager shall then ensure that any such alterations or repairs are carried out.

\(^8\) In the event that blasting is required, refer to Item 12.
10 Vegetation

124. Vegetation shall be stripped from the proposed quarry development area. Before stripping any vegetation a survey shall be undertaken to determine the presence of any rare plant species. All necessary steps shall be taken to save plants classified as important. Care shall be taken to avoid damage to any vegetation outside the defined quarry area. On no account shall burning of vegetation be permitted.

125. A suggested specification is:

— Before stripping any vegetation a survey shall be undertaken to determine the presence of any rare plant species. All necessary steps shall be taken to save plants classified as important.

— Prior to commencing vegetation clearance of the quarry site the contractor shall define the perimeter boundary of the proposed work as shown in the agreed quarry management plan. Vegetation shall then be stripped from the proposed quarry development area. Care shall be taken to avoid damage to any vegetation outside the defined quarry perimeter.

— Stripped vegetation shall be mulched and stockpiled for use in the later restoration of the site.

— Logs and large branches shall be stockpiled for use in the construction of erosion protection works for batters in quarry overburden.

11 Overburden Stripping

126. Overburden stripped from any proposed quarry area shall be stockpiled clear of the quarry operation to be used for site restoration at the completion of operations. Stockpiles shall be shaped and smoothed to minimise ingress of rainwater.

127. Surface water run-off from stockpiles shall be intercepted by perimeter drains which shall be discharged to silt retention ponds.

128. Batters in overburden excavation shall be sloped to ensure they are safe and stable against failure.

129. The maximum height of any batter in overburden shall be 3 metres. Any higher batter in overburden shall have an intermediate bench at least 3.5 metres in width. Such benches shall be shaped and drained.

130. Suggested specifications are:

— The working of the face, sides, tops, or overburden of a quarry shall be carried out in such a manner as will prevent danger from falls of ground.

— The overburden or tops of a quarry, and any loose ground or material, shall be cleared far enough back from the edge of the quarry to prevent danger to the persons employed.

— The toe of all batters and intermediate benches shall be drained and such drains shall discharge to a silt retention pond.

— As soon as practicable after completion of overburden excavation all exposed batters shall be protected from the effects of surface erosion.
12 **Blasting Operations**

131. It is not common for blasting to be required as part of excavation activities in the Solomon Islands, in the event it is required, the following requirements shall be met. Any blasting operations shall be conducted in a manner that will not cause danger to life or property. Blasting operations shall be undertaken in terms of all applicable laws of Solomon Islands.

132. All explosives shall be stored in purpose built locked magazines on a site within the quarry boundary but remote from blasting operations. Detonators shall be stored in a separate locked magazine but similarly sited.

133. A blasting operations manual shall be prepared for any quarry and such manual, which shall be maintained by the quarry manager, shall stipulate procedures for at least the following:

- Operation of magazines for the storage of explosives and for the storage of detonators.
- The quality of explosive that may be removed from a magazine at any one time.
- The procedure for quarry explosive cases.
- Persons allowed to fire shots.
- Explosives to be carried in securely covered containers.
- Tamping of explosives.
- Diameter of drill holes.
- Time when charges are to be fired.
- Detonation delay.
- Firing warnings.
- Blasting shelters.
- Treatment of misfired charges
- Inspection of work site after each detonation by the quarry manager or an approved person appointed in writing by the quarry manager.

134. Suggested specifications for blasting are as follows:

- Blasting operations shall be conducted in such a manner as will not cause danger to life or property.
- While blasting operations are being carried out within 500 metres of any road or thoroughfare, such number of persons as may be necessary shall be stationed thereon with warning notices to warn persons in the vicinity of danger and to prevent access to the danger area.
- A blasting operations manual shall be prepared, approved by MID (or its delegated authority), and a copy shall be available on site at all times. The manual shall stipulate at least the following requirements or procedures:

**Magazines**

- Detonators shall not be stored in the same magazine as other explosives.
- Explosives and detonators shall be stored in purpose built magazines with two different locks.
— A person specially appointed in writing by the quarry manager for the purpose shall be in charge of every magazine, and shall have keys to one of the locks. That person shall be responsible for the safe storage of explosives contained therein, for the distribution of explosives there from, and for the keeping of accurate records of stocks and issues in a book provided for the purpose. A second person, appointed by the employer shall have keys to the second lock. Both persons shall be present to unlock the magazine, and note the removal of stock and ensure both locks are subsequently secured.

— Explosives shall be used in the same order as that in which they were received into the magazine.

— Naked lights shall not be introduced into a magazine or into any working place in a quarry where explosives are temporarily stored.

**Quantity of Explosives to be taken from Magazine**

— Explosives shall not be taken from a magazine in quantities exceeding that required for use during one shift, and any surplus explosives shall be returned to the magazine at the end of that shift.

**Opening of Explosives Cases**

— No case or carton containing explosives shall be opened in the storage area of any magazine.

— Instruments made solely of wood, brass, or copper shall be used in opening cases or cartons of explosives, and the contractor shall provide and keep suitable instruments for that purpose.

— Persons Allowed to Fire Shots - the preparation of charges and the charging, tamping, and firing of all explosive charges in or about a quarry shall be carried out under the personal supervision of the quarry manager.

— When a charge of ammonium nitrate/fuel oil mixture has misfired an attempt may be made to wash out the mixture in addition to any stemming down to the primer. The mixture shall be collected for safe disposal.

— The stemming of a charge of gunpowder that has misfired may be withdrawn with a copper pricker and the charge re-primed and fired.

— A charge of any other compound which has misfired shall not be withdrawn but, if the charge is bottom primed, the stemming shall be carefully removed by the use of water passed through a copper, plastic, or rubber hose to the outer end of the charge and a sufficient charge or charges shall be inserted and fired for the purpose of exploding the original charge until it can be seen by a competent person, after the hole has been washed out, that no explosive remains. A thorough search shall be made for unexploded charges in the resulting rock piles.

— Where it is not possible to remove a misfire by re-firing, a relieving hole shall be drilled as nearly parallel as possible with the original hole in such a manner as will prevent it meeting the misfired hole. The relieving hole shall then be charged and fired.
13 Dust Suppression

135. Operation of any quarry shall incorporate dust suppression measures. Dust generation during blasting operations shall be minimised. All haul roads shall be regularly dampened by spray bars fitted to water tankers or similar systems in order to minimise dust generation by traffic movements. Crushers, screens and stockpiles shall be dampened by appropriate water sprays to minimise dust generation.

136. The following specification is proposed for dust suppression:

- The contractor shall provide and operate plant and equipment for maintaining all surfaces in a damp condition and hence minimize the generation of dust. All haul roads shall be kept continually damp and appropriate water spray systems shall be available to dampen crushing and screening operations and stockpiled material as appropriate.

14 Tambu and Archaeological Sites

137. Should any tambu or archaeological sites be discovered during any stage of quarry development or operation all work shall immediately cease and MID (or its delegated authority) and National Museum (Tambu Register) and MECD forthwith. On no account shall extraction work continue until authorised by the National Museum and/or MECD.

138. The National Museum (Tambu Register) shall arrange an evaluation of the site in association with archaeologists before making any decision as to whether or not extraction works may proceed.

15 Special Conditions

139. MECD and/or MMERE may, upon issuance of approval of the development consent and BMP (including QMP or permitting) for quarry operations to commence, impose any conditions or special requirements on the quarry development or operation as it sees fit. All such conditions and requirements shall be listed in writing by MECD and MMERE and attached to the approval/permission.

16 Quarry Site Rehabilitation

140. At the completion of quarry operations, the quarry site is to be rehabilitated, as agreed with the site owner and MID, and as per the approved QMP. All material heaped and stock-piled during the process of winning and removal shall be spread evenly around the site. The site shall be rehabilitated so that it complements the existing landscape, aesthetic and amenity values of the surrounding area. This rehabilitation shall be to the satisfaction of the MID (or its delegated authority).

141. Any vegetation removed during the establishment and operation of the site shall either be disposed of in the manner set out in the approved QMP or, if required, vegetation debris can be retained for mulching and re-vegetation.

All plant, machinery, equipment, stockpiles and other material associated with gravel excavation activities will be removed from the stream/riverbed/floodplain at the completion of the operation. At the completion of works there shall be no depressions or holes left on the site that may be a hazard or trap water and potentially become disease vectors (stagnating water). If required by the owner (or MID), any access tracks or roads to the site as well as internal site tracks (any including small vehicular ramps to working benches) shall be demolished and the material spread evenly over the site. All plant, machinery, vehicles, and any temporary structures shall be removed from the site immediately on completion of operations.
Annex 7 – CEMP and CEMA Protocol

Table of Contents

1. Introduction

2. Explanation of the Protocol

3. TOR Preparation of Construction Environmental Management Plan & Monitoring Agreement

1.0 Introduction

This environmental management and monitoring protocol has been prepared by Ministry of Infrastructure Development (MID) Central Project Implementation Unit (CPIU) as part of the environmental management system (EMS) implemented for National Transport Plan (NTP) activities. The environmental monitoring protocol is part of the required quality assurance and quality control (QA/QC) phase activities for the designated Contractor and Site Supervisor/Regional Manager. This protocol describes the process for the CPIU and the Contractor to follow so that sound environmental management and monitoring is carried out and will operationalize the recommendations for Tier 2 and 3 activities which require the contractor to prepare and submit for approval a construction environmental management plan (CEMP) which may have been prepared as a concept EMP if it was a more complex Tier 3 activity during the feasibility study stage of the project cycle. This guideline introduces an additional document to be known as a Contractor’s Environmental Monitoring Agreement (CEMA) between the Contractor and the CPIU to specify and carry out environmental monitoring of problem sections of the road that may require additional works to adequately address environmental risks.

The document is meant to make more specific the requirements of the CEMP required for Tier 2 and Tier 3 activities so that once the CEMP has been prepared a written agreement is signed between the Contractor and Safeguards Officer to ensure that the monitoring requirements are understood and also to identify any sections of the road works that may require additional works to head off a potential environmental problem location and seek a variation to the bill of quantities (BOQ) to ensure the work takes place.
2.0 The Environmental Management and Monitoring Protocol

The Environmental Management and Monitoring Protocol

The Protocol

The Protocol links the preparation stages to the implementation of an activity.

There are three main components of the monitoring system in the pre-construction and construction phase:

- Construction Environmental Management Plan (CEMP)
- Contractor’s Environmental Monitoring Agreement (CEMA)
- Supervision monitoring checklist

The entire management and monitoring process for environmental management, monitoring and reporting is shown on Figure A7.1.

Figure A7.1 – Monitoring Protocol - Preparation of CEMP and CEMA
There are three main components during the preconstruction and construction phase.

**2.1 Construction Environmental Management Plan (CEMP)**
- Uses either MBMC Guideline for Tier 2 activities or concept EMP (from PER) for Tier 3
- Inventory of site and/or corridor
- Identify problem areas and mitigation measures
- Standard TOR available if contractor prefers to use consultant for preparation.

**2.2 Contractor’s Environmental Monitoring Agreement (CEMA)**
- Contractor and CPIU Safeguards Team agree on the locations for monitoring and the issues to be monitored
- Copy to CPIU Site Supervisor/ Regional Manager who do routine monitoring check in Contractor Monthly report

**2.3 Monitoring Checklist**
- Monitoring and reporting of results and compliance by CPIU Site Supervisor
- Spot-checking by CPIU Safeguards for compliance issues
- Standard checklist available

Before the preparation of the CEMP, it is considered advisable for the Safeguards Team to organize meetings at the local level (in conjunction with the community advisory committee [CAC]) to ensure that any local criteria should be included into the plan so that local concerns that require monitoring are addressed as early as possible during the pre-construction and construction phase of the project. A simple Memorandum of Understanding (MOU) between the MID and/or contractor and the CAC could be prepared in order to confirm any agreed additional works and/or joint monitoring procedures considered necessary to satisfy CAC concerns. A copy is sent to MID/ CPIU Regional Manager and the Safeguards Team.

The results of environmental monitoring are to be collated on a two monthly basis by safeguards staff and submitted to the ADB on a biannual basis. Significant non-compliances will be noted in these reports, whether issues raised have been resolved and what corrective actions were taken. Six monthly monitoring reports will be submitted by the CPIU which can be subject to ADB supervision missions.

Consequently this protocol is to be used in the field by the Contractor in close cooperation with the Site Supervisor/ Regional Manager and Safeguards Team to prepare for project construction and becomes part of the overall QA system.

The following section provides the pro-forma TOR for the contractor to engage a consultant to prepare the CEMP (see Appendix 7.1).

The document also includes a suggested format for the CEMP (see Appendix 7.2).
Terms of Reference (TOR) Preparation of Construction Environmental Management Plan (CEMP) and Monitoring Agreement (CEMA)

1.0 Introduction

This terms of reference (TOR) has been prepared by Ministry of Infrastructure Development – Central Project Implementation Unit (CPIU) in order to assist the designated contractor carry out the monitoring protocol during the mobilization phase of the contract period. The protocol involves coordination with the site supervisor/ regional manager and the CPIU Safeguards Team as well as the preparation of the Construction Environmental Management Plan (CEMP) and Monitoring Agreement (CEMA) for all Tier 2 and 3 activities to be implemented under the NTP program.

2.0 Background

In accordance with the objectives of the NTP and the provisions of the Sustainable Transport Infrastructure Improvement Program (STIIP) Grant Agreement, sub-projects should be designed and implemented in a sustainable fashion by using the country safeguard system (CSS) and supplemented by Asian Development Bank (ADB) environmental and social safeguards policies as set out in the Safeguard Policy Statement 2009 (SPS) into overall project planning, design and implementation.

3.0 Environmental and Social Safeguards Planning and Design Documents

Each subproject has already prepared or committed to an environmental document which depending on the level of potential impact will be one of three as follows:

- Tier 3 - public environment report (PER) with specific development consent conditions in the construction contracts to implement all proposed management and mitigation measures (refer to SPM Annex 9)
- Implementation of Tier 2 MBMC Guideline (refer to SPM Annex 5) with required CEMP and CEMA with specific conditions in the construction contracts to implement all proposed management and mitigation measures
- Implementation of Tier 1 CPSEM Guideline (refer to SPM Annex 3) with specific conditions in the construction contracts to implement all proposed management and mitigation measure

If land acquisition has been required for the sub-project there may also be a LARP or simple LARP document prepared by (or on behalf) of the MLHS and/or MID available (refer to SPM Annex 11).

These documents are considered to be part of the project specifications and must be used by all designated contractors implementing all the STIIP sub projects. These documents give directions which focus on the potential for impact and give general advice as to how to mitigate the environmental problems encountered.
4.0 Monitoring Protocol

The monitoring protocol is a process set out in the following Figure for ensuring that the outputs of the various components of the environmental and social planning documents of the planning and design phase of the project are fully utilized as the part of the implementation of each sub-project. It is aimed at ensuring there is a direct linkage between the preparation phase and the mobilization and implementation phase of the project. (The responsibilities and the flow chart for preparation of the monitoring protocol are shown previously in Figure A7.1).

5.0 Scope of Work

The contractor will prepare or will retain an environmental consultant during the mobilization phase to carry out the following services.

1. Review MBMC guideline (SPM Annex5), CEMP/CEMA Guideline or concept EMP from PER prepared (SPM Annex 9).
2. In conjunction with MID/CPIU representatives carry out initial coordination and information session on the process with safeguards team and the CAC.
3. Visit the site or corridor and prepare a photographic and descriptive inventory of locations with potential environmental problems including as identified in the concept EMP or from information provided by CAC about recurring problem locations.
4. Prepare a draft CEMP (based on Appendix 7.1 pro-forma environmental management plan)
5. Submit to CPIU Safeguards Environmental officer for review and approval
6. Obtain agreement on problems/issue, proposed mitigations and monitoring locations and actions with Safeguards Team and prepare CEMA which specifies what works are considered necessary, their approximate cost and how frequently monitoring is to be carried out, by whom and to where the report will be sent (Table 7.1).

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<tr>
<th>Location /Photo Reference</th>
<th>Issue /Problem</th>
<th>Monitoring Indicator(s)</th>
<th>Cost Estimate (with volumes included)</th>
<th>Frequency</th>
<th>Responsibility/Report sent to</th>
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6.0 Resources

The costs of the requirements will be included in the contracts for Tier 2 and 3 activities as a lump sum. The work program set out in the scope of work should be prepared using specialist time of one man month plus necessary expenses to mobilize to the site. There are also allowances in the lump sum for monitoring equipment and also testing. If additional works are required to be carried out by the contractor and agreed in the CEMA, there is a provisional sum for negotiation allowed for in the contract.
MEMORANDUM OF UNDERSTANDING

MINISTRY OF INFRASTRUCTURE DEVELOPMENT AND

THE GUADALCANAL PROVINCIAL GOVERNMENT

AND

LAND OWNERS & COMMUNITY OF ST MARTIN to BELAHA ROAD FOR ROAD REHABILITATION AND CONSTRUCTION WORKS

MID
2013

PROJECT NUMBER: TI - GP 26/13 CTB C 34/13

CONTRACT NAME: ST MARTIN UNSEALED ROAD CONSTRUCTION, CENTRAL GUADALCANAL
MEMORANDUM OF UNDERSTANDING

KNOW ALL MEN BY THESE PRESENT:

This Memorandum of Understanding (hereinafter referred to as “Understanding”) is entered into this _ day of September 2013 Belaha, Guadalcanal, by and among:

MINISTRY OF INFRASTRUCTURE DEVELOPMENT, with office address located at Mendana Avenue, P. O .Box G8, Honiara, Solomon Islands, as represented by the Director Harry Rini (hereinafter called the “MID”);

- and -

THE PROVINCIAL GOVERNMENT OF GUADALCANAL, with office address at Kukum Highway, Rita Eleven Building, P. O. Box GC7, represented by its Provincial Secretary, James Taeburi, (hereinafter called the “Provincial Government”);

- and -

THE LANDOWNERS, all residing at St Martin to Belaha Village on Malango ward of Central Guadalcanal (hereinafter collectively called the “Landowners”).

WITNESSETH:

WHEREAS, in the interest of improving economic and social integration of the Solomon Islands, including Guadalcanal, MID intends to rehabilitate the existing 6.8 km unsealed road from Tenaru Entrance to Relocation school, hereinafter called “the Project”;

WHEREAS, the Landowners, realizing the short-term and long-term economic and social benefits that the Project will bring into their lives, hereby express their full support to said Project;
WHEREAS, the Provincial Government of Guadalcanal fully support the Project for the benefit of its Province.

NOW THEREFORE, above premises considered, the Parties hereby commit themselves to perform their respective obligations under this understanding; however, this memorandum of understanding is not a legally binding document, it is based on the understanding of the parties to this understanding.

Article I

Obligations of MID

1. Under the 2013 SIG Funding for rural transport MID intends to implement the Project within the current financial year through private works contractor selected through public national competitive bidding in accordance with pertinent provisions of Financial Instructions;

2. MID shall ensure that the contracted private works contractors shall comply with the government’s social safeguard and environmental protection laws, rules and regulations, as stipulated in the civil works contracts, for the protection of the Landowners;

3. MID shall ensure that the contracted private works contractors shall restore the affected infrastructure assets in accordance with approved specifications and design of MID., as stipulated in their works contracts.

4. MID shall ensure the contractor private work has to complete implementation of this project at a given timeframe.

5. MID shall ensure that a contractor had to properly consult the Community before during and after Construction on matter related to the Smooth implementation of the Project.

6. MID shall ensure that a community Consultation & advisory Committee should be formalize Priors to construction Mobilization.

Article II

Obligations of the Provincial Government of Guadalcanal

1. The Provincial Government hereby expresses its full understanding that the civil works contracts shall be executed and signed between MID and the contractors, and accordingly, contractors shall be under the direct supervision of MID;

2. Upon the contractors’ request, the Provincial Government shall promptly grant them the necessary permits to enable them to mobilize and execute their respective works under the Project;

3. The Provincial Government, in coordination with MID, shall conduct regular meetings with Landowners and contractors to monitor the progress of works construction for the sole purpose of preventing possible disputes that may arise between Landowners and contractors. The Provincial Government shall record the proceedings through minutes of meeting to be signed by all parties. All parties shall be provided with signed copy of all minutes of meeting;

Safeguard Procedures Manual Annexes: 44
4. In case of disputes between Landowners and contractors, the Provincial Government, together with MID, shall preside over the proceedings toward the amicable and immediate resolution of said disputes. The Provincial Government shall record the proceedings through minutes of meeting to be signed by all parties. All parties shall be provided with signed copy of all minutes of meeting;

**Article III**

**Obligations of the Landowners**

In consideration for the economic and social benefits that the Landowners, including the people of the province of Guadalcanal, shall gain from the successful completion of the Project, and further, in consideration for any payments received/to be received by any individual/tribal groups under this Agreement, the Landowners hereby grants MID, its authorized representatives, including its contracted civil works contractors, full and unrestricted access to and use of the designated construction area and its perimeters, including designated staging area to be used by contractors and its sub-contractors, until completion of said Project;

Those of the third Part, on behalf of the property landowner of the Customary Land,

Agree:

1) To provide unrestricted access to the Contractor for access to the St Martin Road Construction Site for the purpose of construction of road to provide access for people to undertake more socio economic activities. The purpose on the condition that such activity is undertaken in accordance with the agreed Environmental Management Plan;

2) That the St Martin Road Land Access Site be provided as voluntary community contribution without claims for cash compensation;

3) That there are no land disputes or compensation claims in relation to the use of land in question;

4) To resolve all internal, tribal, group, or family disputes so as not to cause any delay to the smooth and timely facilitation of the access site.

5) To bring any dissatisfaction or complaint in relation to the use of the Access Site through the formal process established by the Contractor while at the same time ensuring that the ongoing work of the Contractor is not hindered.
IN WITNESS of which the parties have set their hands on the day and year first above written;

SIGNED BY

Mr. Harry Rini (Director)
Ministry of Infrastructure Development (MID)

James Taebi
Provincial Secretary

Jacob Sibia

Silverio Elija

Paul Tovua

Daniel Bale

Peter Isago

Charles Tani

Francis Maeli

Aaron Devesi

Kasiano Tovo

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A. Purpose and Scope of the Guidelines

1. **Purpose.** These guidelines for National Transport Plan (NTP) Tier 3 activities (i.e. major rehabilitation and new construction works) describe the existing country safeguards system (CSS) for environment assessment and development consent procedures that apply to activities requiring development consent and environmental assessment (EA). These guidelines have been prepared to provide an overview and guidance for the various safeguard and compliance aspects of environmental and social issues related to more complex transport sector development in Solomon Islands, referred to as Tier 3 activities in the main text of the Ministry of Infrastructure Development (MID) Safeguards Procedures Manual (SPM). The guide is meant to assist MID and its Central Project Implementation Unit (CPIU) and other regulatory authorities, development proponents, contractors and the public at large in guiding them through environmental assessment as part of the development consent process.

2. **Scope.** The guidelines will also supplement the Environment and Conservation Division’s (ECD) existing *Environmental Impact Assessment Guidelines 2010* for implementing environmental assessment in Solomon Islands and the guidelines prepared to assist with the procedures associated with amendments and revisions proposed as recommendations under *Technical Assistance for Strengthening Country Safeguards Systems in Transport Sector* (TA 8217-SOL).

3. **Scope.** The guide is divided into two main sections. The first section provides an overview of the environmental impact assessment process in the Solomon Islands, this section focuses on CSS application in the transport sector. The second section outlines the framework of environmental and social assessment in the development consent process.

B. Institutional Roles and Responsibilities

4. **Ministry of Environment, Climate Change, Disaster Management and Meteorology.** The MECCDM is mandated to administer the Environment Act 1998 and is required to fulfill four key functions: policy and legislation functions; (ii) enforcement of environment standards and regulations; (iii) advocacy, coordination, capacity development and funding; and (iv) service provision and program implementation.

5. **Ministry of Infrastructure Development.** The MID is the lead institution for sector-wide infrastructure development in Solomon Islands. Its works include the construction and rehabilitation of roads, bridges, wharfs and airfields. Much of the infrastructure development in Solomon Islands is guided by the National Transport Plan and financed through the National Transport Fund managed by MID. MID often assumes the role of developer in initiating project activity requiring environmental development consent from MECDM.

6. **Ministry of Lands, Housing and Survey.** Land acquisition in the Solomon Islands is the responsibility of the MLHS. Under the Land and Titles Act 1969 (Cap 133) the Ministry has the mandate through the Commissioner of Lands to be the custodian of government land and deal with land interests on behalf of the government and the people of the Solomon Islands. It also has the mandate to hold, manage and administer land for and on behalf of the Solomon Islands government for the purpose of the national interest.
C. Environmental Assessment in the Transport Sector Project Cycle

8. Legislative framework for environmental assessment. The environmental assessment requirements are an integral part of the development consent process and are set out in the Environment Act 1998 and Environment Regulations 2008. Together these establish systems for: i) development consent and environmental assessment; ii) pollution prevention and control; iii) reduction of risks to human and environmental health; iv) promotion of waste minimization and recycling; and, v) compliance with international conventions and obligations.

9. The Environment Act seeks to regulate development by requiring proponents obtain a ‘development consent’ before carrying out certain developments (s.19). The developments requiring consent are defined as ‘prescribed developments’ and are set out in Schedule 2. A development consent is an approval granted by the Director of ECD, who is responsible for administering the Environment Act (s.5). The Director can grant a development consent only after the proponent has satisfied the requirements for an environmental assessment—by either public environmental report (PER) or environmental impact statement (EIS), unless the Director has granted an exemption from this requirement (as is normally the case for Tier 1 and Tier 2 activities).

PROCEDURES FOR ENVIRONMENTAL ASSESSMENT FOR TIER 3 ACTIVITIES

10. The current framework for the development consent and environmental assessment process showing the role of the MID CPIU and the Environment and Conservation Division (ECD) of MECDM and other stakeholders is discussed in detail below (and shown in Figure 3 of the SPM).

A. Country Safeguard System Process for Tier 3 Activities

11. Proposal application. For any proposed activity or development which is listed as a prescribed development in the Environment Act, the developer must provide information in the form of a project description as part of the proposal application. This information is required to enable the Director make a decision on whether the proposed development will require a PER or an EIS. This screening decision may be delayed if the information provided in the proposal application is incomplete. The proposal application can be prepared by the developer (e.g. MID) or consultant specializing in environmental assessment. The application is made with the appropriate fee. There is a fee to be paid for development consent depending on the type of prescribed development. Annex 1 sets out the format of the project description to accompany the application.

12. Screening. The proposal application is first screened by the Safeguards Team within the CPIU/MID as to whether it falls within prescribed developments of the Environment Act 1998, and if it is a prescribed development, further consideration is given to determine whether, or to what level of, environmental assessment will be required. There are no current criteria for prescribed developments but the application should provide information on the characteristics of the proposed development as described in the proposal application, (e.g. size, scale, outputs or products etc), location factors of the proposed development (e.g. project is located in or adjacent to any protected or sensitive area), and the characteristics of the significant potential impacts (e.g. size of area affected, number and characteristics of any affected community or people, whether impacts will be temporary or permanent etc).

13. The screening decision is made by the Director of ECD, MEMCD after the project description has been prepared by the Safeguards Team in consultation with the CPIU Engineering Team and the document is sent to ECD.
14. As a result of the screening the Director’s decision will lead to one of three outcomes; (i) the Director can choose to exempt the proposal application indicating no further environmental documentation is required and the exemption is effectively the consent; this is usually reserved for developments or activities which would result in smaller or negligible impacts such as in the case of Tier 1 and Tier 2 activities; (ii) if a proposal application is screened as requiring a PER, then an environmental assessment will be required to produce the PER (and associated EMP). This assessment will be an elaboration of the information presented in the proposal application. In most cases a consultant specializing in environmental assessment would prepare the PER and the required accompanying EMP; (iii) if a proposal application is screened as requiring a more detailed environmental assessment, then an EIS will be required in application for the environment license. The preparations for the EIS would include an additional scoping activity by both MID CPIU and the ECD to produce the terms of reference (TOR) for preparing the EIS (see below).

15. In general terms most Tier 3 projects involving major rehabilitation and/or new construction by MID will require at least a PER document to be produced and in most cases the process would not continue onto a more detailed examination involving EIS. A PER is more or less equivalent to an initial environmental examination required for Category B projects under the Asian Development Bank (ADB) Safeguard Policy Statement 2009 (SPS).

16. **Tier 3 - PER process.** The PER will address those prescribed developments which are routine activities (less significant than those requiring EIS), where impacts are site-specific, few if any are irreversible, and/or are more reasonably anticipated, and mitigations measures can be more readily designed. Scoping for a PER is not necessary and a TOR does not have to be produced. Annex 2 presents a suggested outline for the PER.

17. However, if during the field studies for the PER, a chance finds occur, or an impact not anticipated during the screening of the application, the nature and importance of the chance find or additional/unforseen impact, may bump the PER up to an EIS. There are no current criteria on which to base this decision. In the case of a bump-up, the investigation work of the PER would evolve to scoping and result in an EIS TOR and proceed along the track of EIS assessment and review.

18. **Public consultation.** A key aspect of the PER (or EIS) study is the public consultation process. Involving the public in the preparation of the PER is fundamental to increasing the public’s understanding and acceptance of the project. Public involvement also enables members of the public to identify and bring forward impacts and issues that are not immediately obvious to the PER team. The earlier in the project preparation process the public can be involved, the more likely that a trusting relationship can be built and useful recommendations made.

19. The PER Team must undertake a process of consultation with the people who would be affected by the project and the project stakeholders. The proponent with the PER Team must ensure that the public, including affected people, women and vulnerable groups, have the opportunity to participate fully in the consultation process. Consultations should take place on a continuous basis starting as early as possible in the PER process and continue through even to monitoring and inspection.

20. Land-owner identification and other procedures for the purpose of land acquisition can be initiated through SIA and the public consultation aspect of the PER study s undertaken by the PER Team. After this point the land acquisition and PER activities would diverge. The result of the land acquisition activities will be a land acquisition and resettlement plan (see SPM Annex 11) or land acquisition report.
21. **Environmental management plan.** The EMP is the result of the assessment and is an essential tool for establishing how the mitigation of adverse impacts, and enhancement of positive impacts, will be carried out throughout the life of the project. EMPs are prepared for all aspects of the proposed project; design and pre-construction, construction, operation, and decommissioning where appropriate. The EMP should be systematically updated on a regular basis to ensure that best available technologies and best environmental management practices are implemented in a manner that is pragmatic, efficient and cost-effective.

22. The EMP may be prepared as a stand-alone document, or may be a separate chapter in the PER (or EIS). If the EMP is prepared as a stand-alone document it may mean that there may be some repetition of information from the PER (or EIS). Annex 3 suggests an EMP format.

23. **Application for development consent.** Once the PER and EMP are prepared, the draft documents are submitted together with the development consent application to the Director ECD for review. The current combined PER/EMP first review period (15 days), public review (30 days), and second review (total of 60 days) does not provide sufficient time for review, particularly for complex projects. As such the TA 8217-SOL recommended time of 120 days is suggested to allow for sufficient review. For complex projects where ECD may have to call upon external assistance for review to match the nature and complexity of a given project, this timeframe would likely be sufficient.

24. **Public review and consultation.** Once the first review of the PER and EMP has been successfully completed, the same document(s) are disclosed to the public for public review. The ECD will publish the PER such that it is made available to the public, and convene a public meeting that ensures public participation and feedback on the proposed development. The notice of the meeting is to be published in the newspaper and posted in appropriate public places in affected and/or interested communities. Any cost associated with the publication of the notice and PER is borne by the developer.

25. Public feedback to ECD can be made throughout the 30 day public review period. Any feedback received is forwarded to the developer for documentation on the public consultation process and for finalizing the PER and EMP.

26. **The second review.** The PER may be reviewed again by ECD taking into consideration any feedback, objections and information received during the public review period. The ECD may ask for revisions to PER and EMP as appropriate. Any revisions required to the documents stops the review time until such time the documents are resubmitted. This review is made within a 15 day period. Once the second review is complete, a decision regarding the development consent is made.

27. **Decision.** In rendering their decision the Director shall take into account; (a) the information contained in the development application and the PER; and (b) any objections received and any information provided in support of the objections; and

28. **Approval.** On approval, the development consent is issued to the developer with conditions (based on the EMP) for the purpose of mitigating and managing potential impacts and for monitoring the work performance of the mitigation measures and general compliance. The decision shall be published in the newspaper having wide circulation in the Solomon Islands or in any other forms of public notices as approved by ECD.

29. **Appeal.** The developer or any person(s) who disagrees with any decision of the Director, may within 30 days of publication of the decision, appeal to the Environment Advisory Committee (EAC) in writing, stating clearly the grounds of appeal. The appellant pays to the ECD the appeal fee prescribed by regulations by the Minister.
30. **Activities requiring EIS.** Under the Sustainable Transport Infrastructure Improvement Program (STIIP) activities that would be Category A as defined by the ADB SPS will be excluded. However, some NTP activities may be screened under the CSS as requiring EIS by the Director of ECD yet still be classified as Category B under SPS. In the event an EIS is required, a key aspect of this work is the more detailed identification of potential impacts and proposed mitigation measures known as scoping. This is undertaken after the Director ECD has made the screening decision that the development consent application requires preparation of an EIS.

31. **Scoping and terms of reference for the EIS.** Scoping is required for an activity where potential impacts must be identified for further detailed investigation in the EIS. The result of the scoping is the production of the TOR for the EIS. The TOR establishes the scope of the study and methodology/activities proposed to examine and assess the potential impacts and identify mitigation measures and prepare the EMP.

32. The TOR guides the preparation of the EIS (including EMP) and identifies the likely impacts and risks from the proposed development on the biophysical, built infrastructure (hard and soft), health, socio-cultural and economic environments. The EIS must be prepared in accordance with the approved TOR. The content headings of an EIS TOR are shown in Box 1.

33. The Director ECD makes the proposed TOR available to the public for comments. Additionally, the Director may meet with the proposed developer to discuss and agree the content and scope of the TOR. The Director shall approve the TOR within a specified number of days of receipt.

34. Aside from the biophysical assessment aspects of the study, a social impact assessment (SIA) is to be completed as part of the EIS. The SIA assesses the potential impacts on the socio-cultural and institutional systems, which includes qualitative descriptions and quantitative indicators of development trends relevant to the project, such as significant demographic changes, patterns of asset ownership and livelihoods, and the external political or economic environment within the historical and political context the project operates.

35. **The EIS study.** The EIS study must address the potential impacts at the different stages of the project, i.e. pre-construction, construction, operation, and deactivation/decommissioning. The EIS must be undertaken in accordance with the agreed TOR.
36. Usually an EIS team (e.g. specialists/consultant) working on behalf of the developer in this case MID CPIU would undertake the EIS study and prepare the EIS report (Box 2).

37. Following preparation of the EIS and EMP, the documents are submitted to ECD along with the development application. The process follows the review and approval decision steps as the PER. The EIS may require longer review periods and these will be established by Director ECD, along with the requirements for public meetings on the draft EIS.

38. **Implementation, monitoring and enforcement.** There is also a requirement for monitoring to be carried out by ECD but due to severe staff shortages, the responsibility for the monitoring process falls on the CPIU team. The monitoring process involves the preparation of a construction EMP (CEMP) which is to be prepared in the same way as that of the CEMP under the Tier 2 MBMC activity requirements.

39. Monitoring reports are also to be submitted by the developer to ECD in accordance with any condition of the development consent, in addition the any reports on monitoring carried out by any inspector and any public authority. Monitoring and reporting should be reflective of the EMP schedule and monitoring indicators.
Annex 1 – Format of the Proposal Application (with Project Description)

Following the proposed amendment to Environment Regulations - Schedule 2

The proponent/developer must provide the information set out in this Part that is relevant to the proposed prescribed development. This information is required to enable the Director make a decision whether the proposed development will require a PER or an EIS.

This screening decision may be delayed if the information provided in the Proposal Application is incomplete.

The Proposal Application must contain a project description, as relevant:

1. Name, address and contact details of the proponent/developer
   This information should also contain the principal contact person for the developer (name, title, phone number and email address)

2. Location and scale of the prescribed development
   This information should include;
   a. Maps and plans of the location of the project, showing project components and activities. The maps or plans should be clear and at an appropriate scale to help determine the relative size of the proposed project, components and activities
   b. If possible, provide GPS coordinates;
   c. Maps or plans of appropriate scale showing the location of the proposed project, components and activities relative to existing features, including but not limited to;
      i. Watercourses and water bodies
      ii. Infrastructure and transport components (for example, airports, ports, roads, electrical power transmission lines, pipelines)
      iii. Other features of existing or past land use (for example cultural or sacred sites, commercial developments, houses, residential areas, industrial facilities)
      iv. Community lands and nearby communities, including all villages
      v. National parks, protected areas, or other environmentally sensitive areas
      vi. Fisheries and fishing areas, and
      vii. Hunting areas;
   d. Photographs of the proposed project location, where possible;
   e. Description of the legal ownership of the land to be used for the proposed project, including any title, deed or documentation, or lease or other authorisation, or any chiefs hearing, Local Court, Customary Land Appeals Court or High Court decision concerning land ownership.

3. Province and villages
   Provide the name of the Province in which the proposed project will be located. Where the project may have any impact on another province, provide details of those likely affected provinces.

   Provide the name of the village or villages in which the proposed project will be located. Where the project may have any impact on another village, provide details of those likely affected villages.
4. Plans and technical drawing of the proposed development

5. Feasibility studies of the proposed development
This section should include a summary of the technical studies on the feasibility of the proposed project. The studies themselves may be included as annexes to this Document. Where the feasibility studies are not included, they shall be made available to the Director upon request at any time during the environmental assessment process.

6. Land and water use
Describe any land rights or water rights that may be affected by the proposed project

7. Environmental impacts
A. Biophysical impacts
Provide a brief assessment of the likely environmental impacts from the proposed project. This brief assessment should be based on existing knowledge and available information. This information should include:

a. a description of the physical and biological components;
b. a description of the physical and biological components that may be negatively affected by the proposed project;
c. whether there are likely to be any cross-border impacts and, if so, the nature and extent of those likely impacts; and
d. whether there are likely to be any global impacts, including climate change impacts, and, if so, the nature and extent of those likely impacts.

B. Socio-economic impacts
Provide a brief description of the effects of the proposed project on local peoples. This brief assessment should be based on existing knowledge and available information. This should include, as relevant:

a. Health impacts;
b. Socio-economic impacts;
c. Cultural heritage impacts;
d. The current uses of the land and resources for traditional purposes, including food security; and
e. Impacts to any historic, archaeological, or sacred sites.

8. Public consultation
Provide the following information to the extent that it is available or applicable:

a. A list of stakeholders that may be interested and potentially affected by the carrying out of the proposed project. In addition, this section should describe any consultation activities carried out to date with stakeholders, including:
   i. Names of stakeholders previously consulted;
   ii. Date(s) each stakeholder was consulted; and
iii. Means of consultation (e.g., face-to-face or community meetings, mail, email, website or telephone).

b. An overview of key comments and concerns expressed to date by stakeholders and any responses that have been provided.

c. An overview of any ongoing or proposed stakeholder consultation activities.

d. A description of any consultations that have occurred with other government bodies that have environmental assessment or regulatory decisions to make with respect to the project.

9. Consultation with other authorities

If there has been any consultation with any other authority, this should be summarized here. This section should also indicate any permissions, permits or licenses that the developer will have to obtain from any other authority.

10. Executive Summary

The Executive Summary shall summarize the information provided in the above sections.
Annex 2 – Outline Contents of Public Environment Report

The Public Environment Report (PER) shall include, as relevant, the following elements:

1. **Executive Summary**
   Provide a summary of the key findings and conclusions of the PER. Where necessary this should include consideration of the different phases of the proposed project (e.g. pre-construction, construction, development and deactivation phases for non-permanent project).

2. **Details of the project proponent**

3. **Details of the EIA consultants who carried out the study and prepared the PER**

4. **Description of the project**
   a. Identification of the project
   b. Category of the project
   c. Brief description of the nature, size and location of the project
   d. Justification and need for the project
   e. The proponent's endorsement of the PER
   f. The structure of the PER.
   This section should include maps of appropriate scale showing: (i) general location; (ii) the area affected by the project; (iii) specific location of the project; (iv) projects or developments related to the construction and operation of the project; (v) project boundary and project site layout

5. **Policy, legal and institutional framework**
   Provide a brief description of the policies and legislation that are relevant to the project. Show how the project will be in compliance with such policies and legislation.

6. **Description of the environment**
   The description of the baseline conditions of the existing environment should provide information on the physical, ecological, economic, social, and cultural components. This description should also include details of the interactions between these different components and the importance of such relationships. This section should also include details of the methodologies used for data collection and analysis. This section should provide sufficient information to give a brief but clear picture of the existing environmental conditions.

   The information should include, as relevant:
   a. Physical components
      i. Climate
      ii. Topography
      iii. Geology and soils
      iv. Air quality
      v. Surface water and groundwater
vi. Coastal and marine waters
vii. Marine waters

b. Ecological components
   i. Wetlands and mangroves
   ii. Marine flora and fauna – corals, fisheries, coastal resources
   iii. Terrestrial flora and fauna – forests, habitat types (modified, natural, critical)
   iv. Protected areas and national parks
   v. Rare, endangered or vulnerable species or habitats
   vi. Other industries

c. Socio-economic components, including
   i. Demography - population and communities (including family structures, numbers, locations, composition, employment, unemployment)
   ii. Employment sectors and livelihoods
   iii. Fishing, agriculture and tourism
   iv. Infrastructure facilities
   v. Social infrastructure and facilities (community, health, education)
   vi. Land ownership, tenure, and resource use (forests and natural resources)
   vii. Cultural – heritage, historic or archaeological sites, sacred sites, unique landscapes
   viii. Any types of common or individual rights on natural resources

7. Climate change
This section should include relevant climate change considerations relevant to the construction, operation and decommissioning of the prescribed development, for example:
   a. A description of the historic weather observations and trends
   b. Details of future projections under projected climate change
   c. Implications for the proposed development, or the impacts on the prevailing environment as a result of these trends and projections
   d. Any necessary adaptation measures required to mitigate any potential adverse impacts to the development or the environment.

8. Alternatives (usually only required for complex projects)
This section should provide a summary description of the realistic alternatives to the proposed project. Enough detail should be provided to enable all potential environmental, social, economic and cultural impacts to be identified or predicted and assessed. Alternatives may include:
   a. alternative locations
   b. different project sizes or design
   c. alternative technologies/methods.
The “no-project” alternative should also be considered. The proponent must provide the rationale for selecting the chosen alternative.
9. Impact assessment and mitigation measures
This section should identify those impacts that are likely to be significant negative impacts on
the environment, including health, socio-economic and livelihood impacts. These significant
negative impacts should be identified, as relevant, for each phase of the project (design and/or
pre-construction, construction, operation, and deactivation for non-permanent project).

This section shall also identify the appropriate mitigation measures to address those significant
negative impacts. Potential environmental enhancement measures and additional
considerations should also be considered, as relevant.

10. Environmental Management Plan or Summary of EMP
The EMP may be presented as a separate document. However the main aspects of the EMP
should be provided here.

11. Public consultation and information disclosure
Involving the public in preparation of the PER is fundamental to increasing the public's
understanding and acceptance of the project (e.g., how the project may affect or improve their
living conditions). Public involvement also enables members of the public to identify and bring
forward impacts and issues that are not immediately obvious to the environment assessment
team. The earlier in the project preparation process the public can be involved, the more likely
that a trusting relationship can be built and useful recommendations made.

12. Difficulties encountered
This section should provide information on any difficulties the project proponent encountered in
collecting or assessing the information presented in the PER. This may include, for example,
technical difficulties or lack of know-how).

13. Conclusions and recommendations
This section should present the main conclusions of the PER, and recommendations of further
actions to be taken.

14. Non-technical Summary
A non-technical summary of all the above information should be provided. It should be written in
plain and simple language so as to be understood by the average person.
The environmental management plan (EMP) is the result of the assessment and is an essential tool for ensuring that mitigation of the negative impacts and enhancement of the positive impacts is carried out effectively throughout the life of the project. An EMP should be systematically updated on a regular basis to ensure that best available technologies and best environmental management practices are implemented in a manner that is pragmatic, efficient and cost-effective.

The EMP may be prepared as a stand-alone document, or may be a separate chapter in the PER or EIS. If the EMP is prepared as a stand-alone document it may mean that there may be some repetition of information from the PER or EIS.

It should be noted that the any resettlement or compensation matters are not part of the EMP, and should be presented separately as a land acquisition and resettlement plan (refer to SPM Annex 11).

The EMP shall include, as relevant, the following elements:

1. **Executive Summary**
   Provide a summary of the key impacts identified for the different phases of the proposed prescribed development, and the measures that will be put in place to manage and monitor such impacts.

2. **Details of the proponent/project developer**

3. **Details of the consultants or persons who prepared the EMP**

4. **Description of the prescribed development/project**
   This section should be based on the information provided in the PER or EIS.

5. **Legal requirements**
   This section should present the legislation, standards, guidelines etc. related to environmental and social aspects of the project.

6. **Institutional roles and responsibilities and capacity development/training**
   This section should identify the different roles and responsibilities of the developer and institutions at the different stages of the prescribed development. In particular it should identify who should update the EMP based on detailed designs, who incorporates that into the bid and contract documents, civil works contractor to prepare construction or site-specific EMP based on proponents EMP. This section should also identify who monitors compliance with the EMP.

Training is essential for ensuring that the provisions of the EMP are implemented efficiently and effectively. Training needs should be identified based on the existing and available capacity of the site and project personnel (including the proponent, contractors and subcontractors) to undertake the required management actions and monitoring activities. A training program should be presented in this section of the EMP. The training program should be developed and
delivered by suitably qualified personnel, in a language and medium understood by workers or employees.

7. **Summary of impacts**
   This section should summarize the anticipated negative environmental and social impacts identified in the PER or EIS that must be mitigated, and which are addressed in this EMP.

8. **Description of proposed mitigation measures and costs**
   This section should set out clear and achievable targets and quantitative indicators of the level of mitigation required. Each measure should be briefly described in relation to the impacts and conditions under which it is required. It may be necessary to sub-divide this section between the different phases of the proposed project: construction, operation and decommissioning.

   To ensure that the mitigation measures and monitoring requirements are correctly implemented and funded, this section should contain the cost estimates. This section should include both the initial costs and recurring expenses for implementing all the measures defined in the EMP.

9. **Governing parameters**
   This section should set out the specific emission limit values and environmental quality standards which are relevant to the proposed project. The developer must indicate how they intend to comply with international best practice and best available technologies.

   The developer must provide details of all relevant parameters – and for emissions/discharges to air, water, soil, and waste management. Discharges to sewers should be included, if relevant. This section should also address any occupational health and safety standards.

   The information may be provided in table format. For example:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>International best practice standard</th>
<th>Proposed discharge limit value</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suspended solids</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bacteria</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy metals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pesticides</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eutrophication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>etc.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   It may be necessary to sub-divide this section between the different phases of the proposed project: construction, operation, and decommissioning.

10. **Monitoring program and reporting**
    This section should detail the specific parameters, monitoring protocols, sampling locations and frequencies of monitoring and how compliance with implementation of the EMP and sub-EMPs will be checked and reported. The information may be presented in table format. It may be necessary to sub-divide this section between the different phases of the proposed project, such as: construction, operation and decommissioning. The monitoring program should be such that the following objectives are met:
• to measure the impacts that occur during the different phases of the project, as relevant, construction, operation, and decommissioning, closure and post-closure;
• to ensure compliance with legal requirements and corporate commitments;
• to determine the effectiveness of mitigation measures and other environmental or social protection measures, such as enhancement measures;
• to determine the accuracy of impact predictions;
• to facilitate impact management by warning of unanticipated impacts.

The monitoring programs (e.g., air quality or groundwater monitoring) should be designed to allow for appropriate management actions to be taken as soon as possible in the event of any accident or incident, or any non-compliance with any emission limit value or environmental quality standard.

The responsibilities for the various parties involved in implementing the management actions, mitigation measures and monitoring activities must be clearly defined. This section should include the arrangements for information flows and for co-ordination between the various parties. This section should set out the reporting frequencies and types of reports to be prepared. This should include:

a. internal monitoring and inspection
b. incident, accident and emergency reporting
c. Measuring performance indicators and interpreting and acting on the indicators
d. Training programs.

The types of reports, and reporting frequencies for reporting to the environmental authorities, and other authorities should also be specified. It shall be a condition of any environmental license or permit or consent that the license holder informs the appropriate authorities as soon as practicably in the event of any accident or incident.

11. Emergency plan
The EMP should include an emergency plan to address risks associated with accidents and emergencies during construction, operation and decommissioning. The emergency plan should be linked to any other local emergency plans.

The emergency plan should address the specific risks associated with any dangerous chemicals or hazardous wastes (if any).

12. Decommissioning plan (if required)
If relevant, the EMP should address the decommissioning of the project at the end of the effective operational phase of the project. Until near the end of the operational phase, the decommissioning plan is not expected to be detailed. Until then, the EMP should present a conceptual closure, post-closure and rehabilitation plan covering all project components. Before the end of the operational phase of the project, a detailed closure, post-closure and rehabilitation plan shall be presented to the Director for approval.

13. Complaints and grievances mechanisms
The proponent shall establish a complaints and grievances mechanism (CGM) related to environmental and social issues arising during the construction, operation and decommissioning, closure and post-closure phases. This CGM may be managed by the proponent/license holder with involvement of local authorities and community leaders. This may
be accomplished by setting up a project mediation committee that will meet on a regular basis, or in response to a particular incident. The proponent should indicate how it will manage complaints and grievances in the EMP.

Any complaints and grievance mechanism is without prejudice of the rights of any complainant to make a complaint to the environmental or other authorities or to commence proceedings through the courts.

14. **Work plan and implementation schedule**
This section should include a work plan and implementation schedule indicating the timing of activities and operations, together with the related environmental engineering works and inspection and monitoring schedule. The work plan and implementation schedule is particularly important during the construction phase of the project.

15. **Review of the EMP**
This section should outline the procedures and mechanisms that will be used to revise the project in the light of monitoring results or changes to the project.

16. **Non-technical summary**
A non-technical summary of all the above information should be provided. It should be written in plain and simple so as to be understood by the average person.

**Annexes**

It may be necessary to include thematic environmental management and monitoring plans. These may be better presented as annexes to the main EMP. Depending on the scale of the project different plans may be required for the different phases of the proposed project: pre-construction, construction, operation and decommissioning.

The types of specific management and monitoring plans may include, as relevant:

- a. noise / vibration
- b. water use / hydrology (incl. siltation)
- c. waste management (incl. construction debris)
- d. management of hazardous and dangerous chemicals
- e. emergency response and leakages and spills
- f. traffic management
- g. health and safety
- h. chance finds procedures
Annex 10 - Outline of a Scoping Report

I. Project Information

Name of Proposed Project:

Project Number:

Location: Ward, District, Province

Station Data (for Roads or Km. Reference Points, for example, Km 0 to Km 20.3

Activity Tier: 1, 2, or 3.

II. Sketch Map

III. Schedule of Interests over Land

(Please attach photographs)

<table>
<thead>
<tr>
<th>Location</th>
<th>Name of Land owner/claimant</th>
<th>Status of Ownership</th>
<th>Uses of the Land</th>
<th>Any land users? If yes, please list names.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Crown Land or State Land (SL)</td>
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<tr>
<td></td>
<td></td>
<td>Vacant Land (no claimant) (VL)</td>
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<td></td>
<td>Alienated/Freehold (AL)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Customary Land (CL)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IV. Schedule of Structures on the Land

(Please attach the photographs)

<table>
<thead>
<tr>
<th>Location</th>
<th>Type of Structure</th>
<th>Name of Owners</th>
<th>If different from owner, list name of users</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

V. Remarks
Annex 11 - Outline of a Land Acquisition and Resettlement Plan (LARP)

A. Executive Summary
B. Project Description
C. Scope of Land Acquisition and Resettlement
D. Socio-economic Information and Profile
E. Information Disclosure, Consultation, and Participation
F. Grievance Redress Mechanisms
G. Legal Framework
H. Entitlements, Assistance and Benefits
I. Relocation of Housing and Settlements
J. Income Restoration and Rehabilitation
K. Resettlement Budget and Financing Plan
L. Institutional Arrangements
M. Implementation Schedule
N. Monitoring and Reporting
Annex 12 – Proposed Modified Land Acquisition Process

- Acquiring Ministry or organisation requested land for acquisition and presents budget to facilitate MLHS activities

- Commissioner of Lands (COL) Nominates Land Acquisition Officer (LAO) and Land Acquisition Review Panel sanctions choice

- Commence Land Acquisition

- Step 1: Public notices set up in area to be acquired.

- Step 2: Customary Recording Officer assists customary landowners to identify true owners of the land to be acquired and to determine land boundaries.

- MLHS survey department maps area with GIS. MLHS valuation department values the area to be acquired.

- Step 3: Land owners agree true owners by final reference to Chiefs’ settlement.

- Acceptance of decision form lodged with local court

- Unacceptance settlement form lodged with local court

- Vesting Order issued by COL

- Preparation of the instrument. COL takes ownership and payment made to Customary Lands Trust Board.

- Establishment of LAO Registry

- Right of appeal against intent for public purpose within 3 months of notice being posted

- Customary Recording Office (to be established)

- Six month allowed for determining genealogy

- Customary Lands Trust Board formed. Compensation agreed.

- Appeal to customary land appeal court (Located in Magistrates’ Court)

- Decision referred back to COL. COL compulsorily acquires land for public purpose.
# Annex 13 - Sample Inventory of Losses Matrix

<table>
<thead>
<tr>
<th>Land</th>
<th>Structures</th>
<th>Trees</th>
<th>Crops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner</td>
<td>Location Station Km__ to Km___ Or GPS coordinates</td>
<td>Area to be Affected</td>
<td>Owner</td>
</tr>
</tbody>
</table>

Safeguard Procedures Manual Annexes: 67
Annex 14 - Terms of Reference for a Third Party Monitor

The Solomon Islands Government with financing from the National Transport Fund (NTF) is implementing the following projects xxxxxx.

The Ministry of Infrastructure’s (MID) Central Project Implementation Unit (CPIU) as the executing agency of the project and now seeks the services of a qualified individual who will serve as Third Party Monitor for the implementation of land acquisition and resettlement in the above projects. The third party monitor will be based in Honiara and will report to the Director of the MID/CPIU

Major Responsibilities

In close relationship with Director of the MID/CPIU, the Deputy Director for Planning and Policy, and the Safeguards Team in the MID/CPIU:

- Monitor the progress of negotiations between the MID/CPIU and the landowners in securing a Memorandum of Agreement (MOA) over land to be affected by the project;
- Coordinate with the appointed Land Acquisition Officer (LAO) by the Commissioner of Lands (COL) to track the progress of negotiations for those lands under voluntary lease or purchase under the Land and Titles Act.
- When so requested, act as third party witness to the signing of the MOA between the landowner and MID/CPIU
- Determine if the landowners understood the terms and conditions of the MOA and based on this understanding, provided their free and prior informed consent to the MOA.
- Ascertain if all affected assets and sources of income or livelihoods have been identified, valued, and directly replaced or compensated.
- Assess the timeliness of cash payments and if the amounts meet the replacement cost standard;
- If the assessment shows any shortcomings in meeting the standards, produce a corrective action plan, discuss this plan with the Director and Deputy Director and the Safeguards Team, and obtain their concurrence for its implementation.
- Where there is physical displacement and resettlement, periodically monitor the condition of the transferees.

Essential Competencies/Qualifications

The third party monitor must at least have a Bachelor’s or undergraduate degree in the following disciplines: anthropology, sociology, community development, economics or law. S/he must have at least five (5) years of experience in community development work, housing and resettlement, projects, and direct land acquisition for projects. Excellent writing, interviewing, and listening skills.