

PUNTLAND STATE OF SOMALIA

SOMALI URBAN RESILIENCE PROJECT

ENVIRONMENT AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

June 2018

Originally prepared by:



Expanding Horizons. Enriching Lives.

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revised June 2018

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ABBREVIATIONS, ACRONYMS, UNITS

AMISOM :	African Union Mission in Somalia
BOD :	Biological Oxygen Demand
COD :	Chemical Oxygen Demand
EEZ :	Exclusive Economic Zone
EIA :	Environmental Impact Assessment
EMP :	Environmental Management Plan
ESIA :	Environmental and Social Impact Assessment
ESME :	Environmental and Social Management Framework
ESMP :	Environmental and Social Management Plan
FAO :	Food and Agriculture Organisation
GAP :	Gender Action Plan
GBV :	Gender-Based Violence
GCL :	Geosynthetic Clay Liner
GRM :	Grievance Redress Mechanism
HDPE :	High Density Polyethylene
IDP :	Internally Displaced Person
ILRP :	Livelihood Restoration Program
IPDP :	Indigenous Peoples Development Plan
IUU :	Illegal. Unreported and Unregulated
IGAD :	Inter-Governmental Authority for Development
M&E :	Monitoring and Evaluation
MPA :	Marine Protected Area
MSW :	Municipal Solid Waste
NERAD :	National Environment Research and Disasters Preparedness Authority
NGO :	Non-Governmental Organisation
PIU :	Project Implementation Unit
RAP :	Resettlement Action Plan
RCC :	Reinforced Cement Concrete
RoW :	Right of Way
RPF :	Resettlement Policy Framework
SUIIPP :	Somali Urban Investment Planning Project
SURP	Somalia Urban Resilience Project
SWALIM :	Somalia Water and Land Information Management
TFG :	Transitional Federal Government
UNOCHA :	United Nations Office for the Coordination of Humanitarian Affairs
UNOPS :	United Office for Project Services
UNPF :	United Nations Population Fund
UNSOA :	United Nations Support Office for AMISOM
WB :	World Bank
WHO :	World Health Organisation
° C :	degrees Centigrade
ha :	hectare
km :	kilometre
LPCD :	litres per capita per day
m :	metre
m ³ :	cubic metre
MLD :	million litres per day
mm :	millimetre

DEFINITION OF TERMS

- Environmental assessment (EA) it is a process whose breadth, depth and type of analysis depends on the nature, scale, and potential environmental impacts of the proposed project. EA evaluates a project's potential environmental risks and impacts in its area of influence; examines project alternatives; identifies ways of improving project selection, siting, planning, design, and implementation by preventing, minimizing, mitigating, or compensating for adverse environmental impacts and enhancing positive impacts, and includes the process of mitigating and managing adverse environmental impacts throughout project implementation. The Bank favours preventive measures over mitigation or compensatory measures, whenever feasible.¹
- Environmental impact assessment (EIA) An instrument to identify and assess the potential environmental impacts of a proposed project, evaluate alternatives, and design appropriate mitigation, management, and monitoring measures. Projects and sub-projects need EIA to address important issues not covered by any applicable regional or sectoral EA.¹
- Environmental Management Plan (EMP) An instrument that details (a) the measures to be taken during the implementation and operation of a project to eliminate or offset adverse environmental impacts, or to reduce them to acceptable levels; and (b) the actions needed to implement these measures. The EMP is an integral part of Category A EAs (irrespective of other instruments used). EAs for Category B projects may also result in an EMP.¹
- Environmental and Social Management Framework Whereas EIAs and their associated management plans are project- and location-specific, and undertaken during the detailed design phase of the particular infrastructure development, an ESMF is typically undertaken where there is insufficient detail concerning the specific infrastructure projects, especially when there are several subprojects involved (such as in building or rehabilitating small stretches of road).

¹The World Bank Operational Manual, Operational Policy, 0P 4.01, January 1999.

EXECUTIVE SUMMARY

The Environment and Social Management Framework (ESMF) is an instrument required by the World The Somalia Urban Resilience Project (SURP) will enhance the resilience of select **cities** by: (i) strengthening municipal governance through capacity building of local governments, delivering infrastructure and services through sub-national government systems, and helping to better define the division of roles and responsibilities between the federal, state, and municipal governments in the area of sub-national development and service delivery; (ii) supporting investments in priority urban infrastructure or services; (iii) supporting forward-looking urban planning; (iv) creating short-term income generation opportunities particularly for the urban poor and Internally Displaced Persons (IDPs) through labor-intensive works and exploring longer-term job opportunities; and (v) fostering social cohesion by supporting infrastructure that benefits both the host communities and the displaced and ensuring investments are prioritized through a participatory decision-making process.

The SURP is a national urban resilience project that aims to pilot the use of country systems at the subnational level and strengthen municipal governments' capacity. The initial interventions will begin in Mogadishu and Garowe due to the cities' readiness. Additional funds worth US\$21 million has already been secured to expand the project to Kismayo and Baidoa, secondary cities that suffer from a rapid and large influx of returnees and IDPs. SURP may expand its geographical and sectoral coverage incrementally as and when additional funds become available. The delivery of infrastructure investments through municipalities/district governments under SURP will not only provide a means of testing this decentralized service delivery model in the context of Somalia but will also help strengthen service delivery capacity at the sub-national level for long-term sustainability. SURP implementation will be supported by an Environment and Social Management Framework (ESMF).

The ESMF is an instrument required by the World Bank for Projects that it finances, which is intended by the fund recipient country to protect the environment and people within the influence area. This document outlines the principles and procedures to be followed to ensure that Project activities conform to existing Somali environmental and land laws and the World Bank safeguards policies. The ESMF contains an overview of the Project site's existing environmental conditions, identifies potential impacts of its implementation and proposed generic mitigation and enhancement measures, institutional arrangements and capacity-building requirements necessary to enable the respective implementing units to undertake their respective tasks; possible time frame and estimated budget. The information contained in the ESMF will be among the basis for the selection of area specific urban infrastructure projects which will undergo an environmental impact assessment during the detailed design phase.

The ESMF: a) provides an initial screening and categorization for eligible sub-projects under the Project ;b) defines the environmental assessment instrument (ESIA and ESMP) needed to secure government and Bank environmental clearance to proceed, c) lays down the scope of work to be performed by the ESIA/ESMP preparers for each sub-project; d) describes the institutional arrangement for the implementation of the ESMP throughout the Project cycle, and provides the capacity building requirement to enable the PIU and concerned institutions to undertake their respective roles in the ESMP implementation; and e) lists down the estimated budgetary requirements of the ESMP to be carried out.

The following three components are proposed under SURP for a duration of 36 months: (i) Mogadishu; (ii) Garowe; and (iii) Contingent Emergency Response. The activities relevant to Garowe are outlined below.

Urban Infrastructure. This subcomponent will likely finance four roads in Garowe covering an estimated total of 4.4 km. The SUIPP phase prepared Feasibility Studies and Preliminary Engineering Designs for a total of 19 roads and two bridge investments. Due to funding constraints, however, only US\$2.17 million including supervision fees is available for the rehabilitation of secondary roads which will cover approximately four of the 19 roads. These roads will be prioritized based on the connectivity they provide for both urban poor communities and IDP settlements to key socio-economic facilities, high economic internal rates of return and high benefit/cost ratio. The specific roads to be financed in

the project may be subject to change due to budgetary, security and political economy considerations.

Capacity Building. This component will also support the capacity building of the PIU in Garowe Municipality with a focus on financial management, procurement and environmental and social safeguards and engineering. These are the areas that are critical for ensuring the implementation of quality infrastructure in a transparent and accountable manner. The PIUs are de facto part and parcel of the municipalities and on-the-job capacity development of the PIU staff will translate into knowledge transfer to the wider municipal staff. The capacity strengthening builds off of the institutional assessments carried out for Garowe Municipality under the SUIPP.

Operation and Maintenance (O&M). This component will finance the development of O&M plans for the road and drainage investments supported under the project including support to the Maintenance Committees at the district level. These committees have been formed under the UN-JPLG and are composed of community members including women, youth, IDPs, religious leaders and members of the business associations. Under the SURP, these Maintenance Committees the composition of these committees will be revisited to ensure inclusivity and committees will be further strengthened to take on their role of informing the municipal governments of maintenance needs of the secondary roads and mobilizing and engaging community members for day-to-day maintenance such as gutter clearance as required. This component will also finance the training of units in Garowe Municipality that are responsible for infrastructure maintenance, help the municipality develop and improve guidelines for the formation process and composition of the Maintenance Committees, and support better coordination of the committees' activities. Actual maintenance of the roads is expected to be financed by Garowe Municipality and is not allocated for this in project due to the limited funding available.

Project Management. Finally, this component will finance project management costs i.e.- staffing of PIU in Garowe; audits; implementation of a grievance redress and feedback mechanism (GRM) related to project activities; and monitoring and evaluation of project activities including geo-enabled monitoring. Recognizing that various elements of the project could become a focus for local disputes, the GRM would include the formation of Grievance Redress Committees at the district level and would be integrated into the design of the project. The GRM would be described in more detail in the Project Implementation Manual (PIM).

The Project can be classified as Environment Category B since its significant impacts are quantifiable, temporary in nature, and to be felt within the impact areas, and its mitigation measures are standard engineering practices that are performed in other projects of this nature. A review of the general project description in relation to the existing environmental site conditions, it can be initially determined that the following adverse impacts can be generated by the sub-project implementation: a) land acquisition and resettlement; b) increase emissions of air pollutants including greenhouse gases; c) increase noise levels; c) loss of biodiversity; d) change in site hydrology which can result in worsening flash floods; e) deterioration of surface and ground water quality due to improper disposal of construction and domestic waste; f) public health issues related to improper collection and disposal of garbage and other domestic wastes of construction workers; g) loss of cultural/historical assets; h) spread of HIV/AIDS. STD and other infectious diseases as well as human trafficking; and i) possible social conflict due to non-familarity by migrant workers with local customs and traditions. There are also positive impacts of the Project implementation which includes: a) reduced travel time which can allow local people especially women to be engaged in other productive endeavours; b) reduce vehicular maintenance cost due to improved road conditions, that translates to lower transport cost for goods and services; c) increased household incomes due to reduced transport cost; d) agricultural products and manufactured goods are able to reach the market at a shorter time and better condition; and e) local people can have more convenient means of accessing basic social services such as schools, hospitals, health centres, government offices, etc.

As earlier mentioned, these negative impacts are manageable through the implementation of standard engineering measures contained in the Environmental and Social Management Plan (ESMP) that shall be made part of the contractor's "Scope of Works" in the construction contract of services.

Public participation had been solicited by the Project planners in order to: a) disclose to stakeholders information about the Project, its component, impacts and mitigation measures, time frame, and grievance redress mechanism; b) seek their (stakeholders) opinion, comments and suggestions on the Project and its components; c) secure consensus from the participants on their level of participation in the Project and their capacity-building requirements; and d) derive other information relevant to the conduct of the study.

The owner of the Project is the Municipality of Garowe. The day-to-day management of Project planning and implementation will be tasked to a Project Implementing Unit (PIU) to be created with a corresponding Safeguards Unit responsible for coordinating the various Environment and Social Safeguards activities of the Project which include among others, ESMF preparation, EIA/ESMP drafting, environmental and social monitoring, participation in public consultation meetings, and preparation of internal environmental monitoring reports. Existing Ministry and Municipal government entities will be involved in the planning, review and approval (if necessary) of all ESIA and ESMP reports prepared for the sub-projects, as well as monitoring of sub-project compliance with existing environmental laws. The World Bank will oversee the implementation of the Project, and its compliance to Loan conditionality. Periodic Project Review Missions will be carried out by Bank staff to validate the monitoring reports submitted by the PIU to the Bank.

INTRODUCTION

1.1 PURPOSE AND SCOPE OF THE ESMF

The ESMF is used to outline the principles and procedures that would be followed to ensure that implementation of such projects complies with any existing environmental and land laws of the borrower country and the relevant World Bank safeguards policies. The ESMF contains the review of relevant government and Bank legal framework, provides a general description of the project, outlines the existing site environment, identify and assess the significance of possible impact the implementation of the project may bring to the environmental, propose possible measures to avoid, minimize or manage the adverse effects, outline the institutional implementation arrangements, outline possible capacity-building requirements and budgetary estimate in order to implement the Project.

Technically, the ESMF focuses on:

- Identifying applicable environmental policy, regulatory and institutional framework;
- Providing an general description of the Project and its components;
- Describe the general condition of current site environments;
- Establishing clear guidelines for the environmental and social screening of sub-projects to be financed under the Project;
- Assessing potential environmental and social impacts of sub-projects, whether positive or negative, and propose appropriate mitigation measures for medium and significant adverse impacts;
- Identify possible marginalized sectors, such as vulnerable groups and provide possible measures that can address these issues; and
- Identifying appropriate environmental assessment (EA) instruments such as EIAs or ESIAs that will be required to satisfy Bank safeguard requirements for specific sub-projects.

Using the ESMF properly should:

- Avoid, minimise or mitigate potentially adverse environmental and social impacts commonly associated with these projects;
- Establish clear procedures and methodologies for the environmental and social planning, review, approval and EMP implementation and monitoring for each sub-projects;
- Enable a screening or initial assessment to be used for sub-projects; and prescribed the appropriate Environmental Assessment instrument that will satisfy WB safeguard requirements as specified in OP4.01; and
- Specify institutional roles and responsibilities and the necessary reporting procedures for EMP implementation and monitoring of sub-projects.

1.2 RATIONALE FOR THE ESMF

The ESMF has was prepared due to insufficient certainty as to sub-project investments to be selected for implementation. The ESMF outlines the principles and procedures that should be followed to ensure that implementation of the Project satisfies appropriate country laws and World Bank Safeguards policies. This ESMF however, does not attempt to address possible site-specific impacts that may be caused by sub-projects as their respective activities, locations and extent of impacts are not known at this preparatory stage. This ESMF is prepared as a standalone document that should be consistent with the Project Resettlement Policy Framework (RPF) and the Resettlement Action Plan (RAP), as needed, for each sub-project. The ESMF provides guidelines for addressing potential environmental and social

impacts that may result from civil works implementation while the RPF establishes the land acquisition and resettlement principles (including eligibility and entitlement matrix for compensation), institutional arrangements, grievance redress mechanisms, and income/livelihood restoration programs to be applied in order to at least restore affected persons to their pre-project socio-economic conditions.

This ESMF outlines the processes and procedures to be followed when any activity that will be financed under this investment has the potential to trigger any of the World Bank Safeguard Policies, especially *Environmental Assessment, OP 4.01*. The ESMF has been prepared in accordance with *World Bank Guidelines for the Preparation of ESMF (2008)* applicable World Bank Safeguard Policies and any prevailing country laws.

1.3 APPROACH TO THE PREPARATION OF THE ESMF

The following activities are involved in developing an ESMF:

Task 1: Project Description

Task 2: Environmental policy and regulatory framework;

Task 3: Characterization of existing environmental site condition

Task 4: Environmental screening and scoping;

Task 5: Identification and assessment of potential positive and negative environmental and social impacts;

Task 6: Crafting of appropriate environmental and social mitigation measures;

Task 7: Development of an environmental and social management and monitoring plan;

Task 8: Institutional arrangements

Task 9: Training needs assessment and planning;

Task 10. Budget estimation

Task 11: Public consultation

2 PROJECT DESCRIPTION

2.1 PROJECT BACKGROUND

The *Urban Investment Planning Project* (UIPP) is intended to support the feasibility, assessment, and preliminary design studies for urban investment activities, across the geographic territory of South and Central Somalia, Puntland and Somaliland. It will also support the development of an Environmental and Social Management Framework for the proposed investments. The UIPP also provides the technical basis, through the outputs of feasibility studies and preliminary designs for urban roads in Garowe, for a supplementary investment project.

This supplementary investment project, the *Somalia Urban Recovery Project* (SURP) will use the UIPP output preliminary designs, as basis for the preparation of final detailed designs, procurement and the supervision of civil works contracts for the approved road sub-projects in Garowe.

The ESMF provides an initial environmental assessment, the results of which will be the basis for subsequent environmental assessments for each sub-projects to be done under the SURP.

Puntland is situated in the north east of Somalia, with its administrative capital Garowe located in the centre of the region. Other major towns include Bosaso, the commercial capital and main port; Galkayo and Qardho. Since 2010, Garowe Municipality has undertaken a programme of upgrading targeted intra-city roads to provide a smoother flow of urban vehicular traffic, facilitating easier and quicker transport between various parts of the municipality. This improvement in urban mobility is aimed at facilitating increased commercial activity, boosting business and household incomes, and improving government revenue generation.

During 2010-2013, several roads have been designed and constructed with earth and gravel surfaces. USAID and UN-Habitat have continually financed roads projects in Garowe. Through UN-Habitat, a survey of roads conditions has been conducted and the results have been documented. Currently, 7.6 km of roads are in the process of being upgraded to bitumen surface standards.

Several roads and bridges have been identified as potential investments for improvement. The feasibility studies and preliminary designs developed at this stage will determine the actual investments to be made.

2.2 PROJECT BOUNDARIES AND SCOPE

Potential sub-project investments include the upgrading of several key roads within the Municipality of Garowe from the current earth and gravel surfacing to asphalt pavement standards. Similarly, sub-project investments may also include the upgrading/construction of bridges also located within Garowe. Information on the dimensions and make of these bridges are not yet available at the time of this report preparation. Figure 2.1 and Figure 2.2 shows the location of the priority roads and bridges to be upgraded/constructed.

2.3 PROPOSED PROJECT ACTIVITIES

The proposed sub-projects for investment consists of rehabilitation of existing roads and construction of bridges. The land acquisition for road upgrading is likely to be temporary in nature, for use as temporary construction facilities such as storage of construction materials, and secured garage for Project vehicles and equipment. However, if there is construction of new bridges, new quarries will entail permanent land acquisition. Bridges will need to have its foundation and approaches built on permanently-acquired land. Meanwhile, construction materials such as earth for fill and aggregates for sub-base course and asphalt preparation may need to be extracted from acquired lands.

The potential project activities are indicated below:

Rehabilitation/Upgrading of Existing Roads

- Establishment of Temporary Construction Facilities including Materials storage area, Construction Plants, Fabrication Yards, Vehicle and Equipment Garage, Construction Office and Worker's Accommodation;
- Clearing and Grabbing;
- Hauling, sorting, temporary Storage, and disposal/reuse of excavated materials;
- Hauling, laying and compaction of sub-base materials;
- Double surface treatment with bitumen and chips;
- Single seal surface treatment with bitumen and chips;
- Drainage improvement such as side ditch excavation/clearing and connecting to receiving waterways;
- Lining of the ditches either with concrete or masonry stone;
- Installation of side walkways;
- Installation of other road appurtenances (i.e. street lighting, informative signs, traffic stop lights, railings (if necessary), etc; and
- Cleaning of construction area, dismantling of temporary construction facilities, hauling out and disposal of waste materials, and demobilization.

Construction of Bridges

- Establishment of temporary construction facilities including materials storage area, construction plants, fabrication yards, vehicle and equipment garage, construction office and worker's accommodation;
- Geotechnical investigation;
- Clearing and grabbing;
- Hauling, sorting, temporary storage, and disposal/reuse of excavated materials;
- Partial diversion of stream to establish a suitable working environment;
- Foundation excavation and construction (i.e. pile driving, cast-in-place pillars, etc.);
- Construction of abutment/pier;
- Fabrication and installation of sub- and super-structures;
- Construction of bridge approaches on both sides;
- Installation of other bridge appurtenances (i.e. street lighting, informative signs, railings, etc.); and
- Cleaning of construction area, dismantling of temporary construction facilities, hauling out and disposal of waste materials, and demobilization.

3 INSTITUTIONAL, ADMINISTRATIVE, LEGAL FRAMEWORK

The legislation that is relevant to the proposed project include national laws and regulations, State and local Government laws as well as international conventions and other instruments to which Puntland subscribes are discussed in this Chapter, as well as the World Bank Safeguard Policies.

3.1 INSTITUTIONAL AND ADMINISTRATIVE FRAMEWORK

In Puntland, the Ministry dealing with environmental concerns is the Ministry for Environment, Wildlife and Tourism. This ministry collaborates with the Humanitarian Affairs and Disaster Management Agency in the development of climate change, early warning and drought resilience strategies. It also collaborates in the identification and mapping of Puntland disaster prone zones.

The Ministry for Environment, Wildlife and Tourism has responsibility for climate change mitigation and adaptation strategies, and also has a draft five–year plan (2017-2021) awaiting approval.

Puntland has established a disaster management authority (Humanitarian and Disaster Management Activities) that is not directly involved in environment-related activities, although it does plan to launch a drought mitigation programme, which would oversee rangeland management and control of soil erosion and water catchment management.

The World Bank finances a Water and Agro-Pastoralist Livelihood Project (WALP) for which an ESMF was prepared.

The Garowe Municipality has overall responsibility for roads within its administrative jurisdiction.

Puntland has a Ministry of Planning which has a three-year development plan (2017-2019) covering livestock, agriculture and the environment. The plan has now been approved (2016) by Puntland Cabinet and is being supported by the UNDP Somali Project Watch Brief.

The public consultation suggested that the following government and private section groups may have varied interest in the Project, which should be followed up during subsequent environmental assessment work.

- The Ministry of Public Works and Housing
- Ministry of Interior, Rural Development and Local Government
- Ministry of Agriculture and Irrigation
- Ministry of Livestock and Animal Husbandry
- Puntland Highway Authority
- Public-private partnership with the National Electricity that handles Water supply
- Public-private partnership with the Nuugal Water Company that provides electric power supply; and
- Public-private partnership with Daryeel Deegaan, which handles Waste management

3.2 RELEVANT LAWS, REGULATIONS AND POLICIES

The legislative and policy environment in Puntland is weak although there has been much greater progress here as compared to Somalia, as the area has had a longer period of stability. In Puntland, uncontrolled deforestation for charcoal production is contributing to soil erosion, flooding, further economic vulnerability and repeated cycles of famine.

The key causes of this problem include:

- Inadequate livelihood options for charcoal producers
- Environmental and land management policies that are either ineffective or poorly implemented
- Inadequate use of alternative fuel sources
- Lack of commitment from communities to protect their environmental resources

As a result of devastating environmental degradation, the then Puntland President set up the Ministry of Environment, Wildlife and Tourism in 2009.

The Puntland government has enacted the following environmental regulations, polices and strategies:

- Environmental Policy (2014) approved by the Cabinet and Parliament;
- Environmental Management Act (2016) approved by the Cabinet;
- Puntland Rangeland Management Policy 2nd Edition (2016-2025) (2016) tabled at Cabinet for approval;
- Draft Puntland Waste Management Policy (2016);
- EIA Act and Regulation (2016) approved by Cabinet and Parliament;
- Puntland Climate Change Strategy (2016); and
- Ministry of Environment Wildlife and Tourism Strategic Plan (2016-2020), awaiting approval.

Article 96: Protection of the Environment

The Constitution of Puntland envisages in Article 96, the importance and protection of the environment. Among the key features include:

- Deforestation, soil erosion and pollution, charcoal exportation, and trading of endangered plants and animals are prohibited;
- Export of female livestock is forbidden;
- Hunting of wildlife for game is forbidden; and
- Prohibition on the urbanisation of unsuitable lands.

There is an Environmental Policy (2015) which provides the overall guiding policies relating to the management of the environment and natural resources. This policy allows a rationalisation of administrative regulations and policies to eliminate deficiencies or inconsistencies with other previous policies. The policy promotes the use of appropriate environmental assessment instruments such as the EIA and Strategic Environmental Assessment.

The Puntland Ministry of Fisheries, Ports and Marine Transport endorsed a Fisheries/Marine Policy and Strategy (2004) which promotes sustainable development. The Ministry is much concerned about the destruction of the State's marine ecosystem that contained in a position paper.

3.3 APPLICABLE INTERNATIONAL REGIONAL AGREEMENTS

There are many international treaties, agreements and conventions that had been or awaiting ratification by most countries aimed at halting environmental degradation, as well as the protection of human health. Somalia subscribes to a number of these international treaties and conventions related to environmental protection. Somalia has signed a number of important international conventions relating to natural resource use and management (UNEP 1996). Puntland State, being part of the Federal Government of Somalia, also subscribes to the above conventions. Among the important international conventions related to natural resource use and management Somali is a signatory to includes²:

- Convention on International Trade in Endangered Species of Wild Fauna and Flora;
- Convention on the Conservation of Migratory Species of Wild Animals;
- Regional Convention for the Conservation of the Red Sea and the Gulf of Aden Environment;
- Protocol concerning Regional cooperation in Combating Pollution by Oil and other Harmful Substances in Cases of Emergency;
- UN Convention on the Law of the Sea; and
- Protocol concerning Co-operation on Combating Marine Pollution in cases of Emergency in the Eastern African region.

²United Nations Environment Programme, The State of the Environment in Somalia, A Desk Study; December 2005

• Convention for the protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region (Nairobi Convention).

3.4 WORLD BANK SAFEGUARDS POLICIES

The World Bank has Environmental and Social Safeguard Policies that seeks to avoid, minimize, else mitigate the adverse effects of development projects it is financing. The compliance with these safeguard policies is required among others, to assure that the Project is eligible for World Bank support. The relevant Safeguard policies are summarised in Annex 1. The IFC and the World Bank Group have developed a set of Sectoral Environment, Health and Safety Guidelines specific to particular industries sectors or types of projects.

The proposed Project triggers four World Bank safeguard policies which are listed and described in Table 3.1 below. The WB Safeguard policies that potentially applicable are: OP4.01, Environmental Assessment, which requires the conduct of environmental assessment for bank financed projects; OP 4.04 Natural Habitats, potentially applicable in the case that any bridges are constructed; OP4.11 on possible impact to physical cultural resources; and OP 4.12 Involuntary Resettlement, in the case that there is temporary or permanent land acquisition.

In general, the potential roads for upgrading and bridges for construction can have marginal to medium adverse environmental impacts since: a) the potential roads for upgrading are existing; b) the possible impacts are known and its effects can be quantified and expected to be felt within and adjacent to the construction areas; c) the adverse environmental impacts are mostly temporary in nature, reversible and will occur only during the duration of the construction period; and d) the adverse environmental impacts can be mitigated using existing engineering methods. In view of above reasons, the Project is proposed to be classified as an Environment Category B project.

Safeguard Policy	Safeguards	Comment	
	Triggered		
Environmental Assessment (OP/OB/GP 4.01)	Yes	Activities including upgrading of existing roads, construction of two new bridges, the temporary acquisition of land and extraction of resources for these activities will lead to short-term, reversible economic and potentially physical displacement	
Natural Habitats (OP/BP 4.04)	Yes	The potential road sub-project will have little to no effect on areas of natural habitat. However, if there is bridge construction selected, this could have an impact on the Tongga-Garowe River and/or the Lan Alitrin stream.	
Pest Management (OP 4.09)	No	It is not anticipated that agricultural chemicals will be applied to vegetative slope stabilization of road embankments.	
Indigenous peoples (OP 4.10)	No	The people in the area are not considered as indigenous peoples	
Physical Cultural Heritage (OP 4.11)	Yes	Civil works, including excavations may not avoid all cultural heritage sites or presently unknown sites that can be expected to be found in this area	
Involuntary Resettlement (OP/BP 4.12) Yes		Construction activities may require temporary involuntary resettlement. No permanent resettlement will be needed, as only some small roadside structures (kiosks or tables) may be temporarily displaced during construction but able to return after works are completed. A Resettlement Policy Framework has been prepared. The RPF will provide guidance for RAPs to be prepared once specific road segments are selected.	
Forest		There are no forests within and in the immediate vicinity of the	
(OP 4.36)	No	construction area nor quarry site.	
Safety of Dams		The projects do not involve the construction or maintenance of	
(OP/BP 4.37)	No	dams	

Table 3.1: World Bank Safeguard Policies ~ Triggering

Safeguard Policy	Safeguards Triggered	Comment
Projects on International Waterways (OP/BP/GP 7.50)	No	Water will not be sourced from any international waterway and the catchment area does not discharge into such
Projects in Disputed Areas (OP/BP/GP 7.60)	No	The Project area had experienced stability due to the absence of armed conflict for a significant number of years.

4 BASELINE BIO-PHYSICAL AND SOCIO-ECONOMIC ENVIRONMENT

4.1 METHODOLOGY

The profiling of existing environmental conditions within the Project area had been conducted through: a) collection and review of relevant literature, press releases and secondary data on the Project site; b) and interview of key informants. Among the materials gathered that served as reference for the baseline study include:

- Press release on new three-year programme to enhance and sustain Somali artisanal fisheries production, including processing and trade, and the related coastal management, Somaliland Ministry of Fisheries and Marine Resources, the local agency, Havoyoco, Oxfam and the European Union (2014);
- Land Resources Assessment of Somalia, SWALIM (2009);
- Water Resources of Somalia, SWALIM (2007); and
- Country Environmental Profile for Somalia, EU-IUCN (2006)

4.2 **BIO-PHYSICAL ENVIRONMENT**

4.2.1 Climate

The climate in Garowe is arid. Temperatures range between 14°C to34°C. The geography (mountains and coastal areas) of the country has much influence in the rainfall variability. Average annual rainfall in the country is about 280mm, which can go as high as 500mm in some areas, such as the Ogo highlands (Hughes and Hughes, 1992). Droughts occur every two to three years and are often followed by severe floods. In Garowe, the highest average rainfall is recorded during the month of May at 51mm. Mean annual rainfall is about 10.8mm.

Climate is the primary determinant for Somali life, and the timing and amount of rainfall are crucial factors determining the adequacy of grazing (FAO-SWALIM). There are seasonal patterns of rainfall that are strongly influenced by the Inter-Tropical Convergence Zone (ITCZ), the north south movement of which results in two dry seasons and two wet seasons in a year. Garowe has two dry seasons during the months of January-March (Jilaal) and July-September (Hagaa); and two wet seasons during the months of April-June (Gu) and October-December (Deyr). The supply of clean water normally goes up during the dry period when water availability from natural sources decline, while local food prices increase during the wet season especially in June-September when monsoon winds hinder shipping of imported food commodities which supplement limited domestic sources.

4.2.2 Air Quality

There are no published ambient air quality data for the municipality of Garowe.

4.2.3 Geology and Soils

Soils are generally calcareous. Many of the seasonal rivers have rich alluvial soils. Most of the drier parts of the country have thin and relatively infertile desert soils.

4.2.4 Hydrology

There are two wadis or natural waterways in Garowe town, one is the Togga-Garowe river at the northern portion that bisects the municipality, and the seasonal Lan Alifrin stream in the southern part. Both waterways serve as Garowe's main natural drainage. It is along these waterways that new bridges could be financed. Most of the urban infrastructures are found adjacent to the Togga-Garowe river. Seasonal flash floods are recorded to occur much of which originate from the Lan Alirin stream which affects large parts of town most especially the eastern part of Garowe. IDPs are most vulnerable to these calamities. For this reason, OP 4.04 Natural Habitats is deemed applicable to this project.

4.2.5 Land Use

In general, only a small 1.64% of the country is arable land, of which only 0.04% is planted to permanent crops. Most of the land at 98.32%³ is devoted to other uses. Garowe is an urban area that is predominantly residential. Small Institutional and commercial areas are located along and near the southern banks of the Togga-Garowe River where the Gambol road serves as the main access facility. Education facilities are found in the northern portion of town across the Togga-Garowe River, while the farmlands are found at the southern part of Garowe by the northern banks of the Lan Alirin stream. IDP camps are also found adjacent to the farmlands. Figure 4.1 contains the land-use map of Garowe town.



Source: FAO, Garowe Urban Baselline Report

Figure 4.1. Land use map of Garowe

Biodiversity

Most of Somalia is located within the Horn of Africa Biodiversity Hotspot. Only a small portion of the south-west, which falls into the coastal forests of Eastern Africa Hotspot, is not included. This hotspot is composed of the countries Djibouti, Ethiopia, Eritrea, Kenya, Oman, Somalia and Yemen, and had been a renowned source of biological resources for over thousands of years. It is only one of two areas that is home to a number of endemic and threatened antelope (beira, dibatag and Speke's gazelle), and holds more endemic reptiles than any other regions in Africa. However, it is also one of the most degraded hotspots on Earth with only 5% of its original habitat remaining. ⁴

Garowe is however a highly urbanized area with residential, industrial and commercial zones. Historical records indicate that Garowe and much of northeastern Somalia were an integral part of the Majeerteen Sultanate that is ruled by Boqor Osman Mahamud, cousin of Sultan Yusuf Ali Kenadid of the Sultanate of Hobyo.⁵Within this municipality where roads and bridge sub-projects may be selected, there are no sensitive environments that may be adversely affected by the planned construction works.

The faunal species that have been observed within the Project area are mostly domesticated animals that are used by local people for food and other domestic purposes. Since Garowe serves as the

³<u>https://en.wikipedia.org/wiki/Geography</u> of Somalia

⁴www.globalspecies.org/hotspots/display/13/

⁵<u>http://en</u>. Wikipedia.org/wiki/Garoowe

transhipment point for quality livestock exported to the middle East, as well as local retail market for low quality livestock for local consumption, significant numbers of these mammals can be seen in town especially in the two markets. Table 4.1 contains an initial listing of the domesticated mammalian species observed within the boundaries of Garowe.

Location	Common Name	Latin Name
	Camel	Camelus sp.
Garowe	Cattle	Bos Taurus
	Sheep	Ovis aries
	Goat	Capra aegagrus hircus
	Poultry	Gallus gallus domesticus

Table 4.1: Faunal Species Observed within the Project Area

*Source: Technical Team

4.2.6 Protected Areas and Sensitive Habitats

As mentioned in Section 4.2.6 (Biodiversity), most of Somalia is located within the Horn of Africa Biodiversity Hotspot. However, it is likewise among the most degraded environments with only 5% of its original habitat still remaining. Within this arid region, is the municipality of Garowe where the sub-projects is located, that evolved from an ancient human settlement. Currently, there are no sensitive environment that can be found within the Project area which is an urban area.

4.3 SOCIAL ENVIRONMENT

4.3.1 Population

The United Nations Population Fund (formerly the United Nations Fund for Population Activities) estimated that in 2014 the total population of Somalia was 11,800,833; which is broken down to 1,830,073 for Puntland; 3,508,180 for Somaliland and 6,462,580 for Jubaland and the rest of Somalia (UNFPA Population Estimates Survey of Somalia 2014). Table 4.2 contains the breakdown of the population of Somalia in 2014 based on the UNFPA survey. Garowe municipality on the other hand has an estimated total population of 33,395 residents in the year 2005.⁶ The population is mostly Somalis from the Harti Darod clan confederation, specifically the Majerteen and leelkase Darood clans.

Table 4.2: Population Estimates

Region*	Population
(Jubaland) + (rest of) Somalia	1,360,633 +5,101,947 (6, 462, 580)
Somaliland	3,508,180
Puntland	1,830,073
TOTAL	11, 800, 833

The selected sub-projects, which may include road rehabilitation and bridge construction, is not expected to cause significant land acquisition nor displacement of local residents. It is possible that a few households may affected during the construction phase of road rehabilitation. If there is bridge construction, there might be temporary land relocation resulting from the installation and operation of construction facilities and/or permanent land acquisition resulting from development and exploitation of the quarry site.

Prior to the start of construction, meaningful public consultation meetings need to be conducted to inform the stakeholders, most especially the affected persons on the impact such undertakings will create and measures proposed to be carried out by the implementers to avoid, minimize, else mitigate

⁶En.m.wikipedia.org

the adverse effects, including compensation for damages, and relocation if necessary. Since most if not all of local residents are Somalis belonging to two major clans (Majerteen and Leelkase Darood clans), proper coordination with the heads of these families is essential to secure the cooperation of the local populace, especially in the planning and implementation of the resettlement plan to be prepared for the Project.

Internal Displacement Due to Armed Conflict

Somalia has the one of the largest internally displaced population in the world with over 1.46 million IDPs, as well as about half a million asylum seekers and refugees.⁷ Garowe is a transit point for displaced population destined for the port of Bosasso. A number of these fleeing groups have have however remained in Garowe and settled in a number of camps located south of the municipality under deplorable conditions. These people originated from the Banadir region specifically Mogadishu, Bay, Bakool, as well as other places in Puntland. These population are displaced due to armed conflict; and economic and livelihood crisis resulting from draught. UNDP estimated that in 2005, there were about 1,500 displaced households or 12,605 persons making Garowe having the third biggest number of vulnerable people behind Bossaso and Galkayo. Darood, Rahanwyn and Jareer are the dominant clans. There are more females (54.2%) than males (45.8%); with 53.8% of the population below 17 years of age, while 44.3% are between 18 and 65 years of age. About 82% attend religious school (Madrasas) since most cannot afford to send their children to existing government and private schools. Less than half (46.6%) of household members are engaged in casual labor, with women serving as housemaids, petty retail stall, laundry and garbage collection; while the men are involved in construction work, loading vehicles, slaughter of animals or work in small farms.

4.3.2 Administration and Ethnic Groups

Somalia has a Federal type of government composed of three areas namely Somaliland, Puntland and Jubaland. Puntland has an autonomous government that has its own executive, legislative and judiciary. Though relatively peaceful, the region briefly experienced political unrest in 2001 when disputes occurred due toattempts by the incumbent President then to increase his term of office.

On 15 June 2009, the Puntland government passed a new regional draft constitution, representing a significant step toward the eventual introduction of a multi-party political system to the region for the first time.On 15 April 2012, the Puntland government opened a four-day constitutional convention officially inaugurating the new Constitution of Puntland. On 12 September 2012, the Puntland Electoral Commission announced that the registration process for political parties in Puntland was open. The last elections were held on 8 January 2014.

Garowe is administered by a municipal government headed by an elected Mayor. The local government of Garowe has several instrumentalities that are tasked to facilitate development, provide basic social services to its constituents. This is done by channelling resources to key sectors that form the backbone of the economy. These sectors include road maintenance, health services, water supply, sanitation, electricity and waste management. The municipality also serve as the venue for a number of international organizations that assist the government to provide basic social services. Since Garowe is the administrative capital of the Puntland Regional government, various Ministries have also established their main offices in the municipality as well as various facilities. These facilities include the parliament building, hospitals, schools and an international airport.

As of 2015, the population of Puntland is estimated at 4.2 million residents, 65% of whom are nomads. The region is primarily inhabited by people from the Somali ethnic group, with the Harti Darod especially well-represented. There are also a number of Mehri residents. Less than 25% of the population are settled farmers, most of who live in the fertile agricultural zone sandwiched between the country's two main rivers in the south. The remainder of the population is urban based in the main

⁷Save the Children International, SQUEAC Investigation in IDP Camp, Garowe, Puntland, Somalia, 2013

centres including Garowe. A strict, and respected, lineage underpins Somali society with divisions defined along clan and sub-clan lines. Within each clan, there are many sub-clans and sub-sub clans. The Somali "*Xeer*", the customary code reflecting trust, is used to regulate relations between clans. This has been routinely violated in various conflicts, but could form a basis on which to rebuild trust in future. With greater peace and security in Puntland, government policies and laws have evolved (see Section 3) and this has also helped sustain peace.

As earlier mentioned, Garowe is populated mostly by Somalis coming from the Majerteen and Leelkase Darood clans. Since these tribal groups are major stakeholders in this Project, it is essential that their participation in the planning and implementation of the project need to be secured. Tribal practices and values can be taken into consideration in the planning of the road and bridge projects, most especially in developing the resettlement framework for addressing social impacts, local people's participation, and grievance redress.

4.3.3 Economy and Poverty

Local Economy

The United Nations had classified Somalia as a least developed country. Agriculture is the most important sector, which accounts for 65% of GDP and employs 65% of the workforce⁸. The economy is based mainly on livestock and remittances/money transfers from abroad, and telecommunications. Livestock contributes about 40% to GDP and more than 50% of export earnings. Similarly, Somalia is the world's fourth-most remittance dependent country, which makes up about 20-50% of local economy.⁷Remittances alone was estimated at USD \$1.3 billion for the country as a whole (no figures disaggregated for Puntland), not only provide a buffer to the economy but also are a lifeline to large segments of the population cushioning household economies and creating a buffer against shocks. Telecommunications on the other-hand had been developed in the country primarily by private entrepreneurs with their foreign investors from China, Korea and Europe. These facilities not only transmit electronic messages and data, these also are used to do money transfers. The telephone density in the country is much denser than its neighbouring countries.

Garowe municipality on the other hand, had seen significant growth during the period of relative peace. It is linked to the urban and rural areas of Somalia, as well as to the Diaspora (overseas communities of Somalia expatriates). The town serve as the trading center for livestock intended for the local market, and the transit point for the export of quality animals (camel, goat, and sheep) through the port of Bosasso. The livestock trade in Garowe town is a key revenue source for the Puntland State Authority that imposes sales tax on the trading of these animals. Even Ethiopia's Zone5 exports its livestock through Garowe which makes up about 30% of all animals traded. Garowe is also the market for local agricultural products such as cereals, fruits and vegetables from southern Somalia. Similarly, the municipality is also engaged in the trading of imported food commodities (rice, wheat, sorghum, sugar, etc.) that goes through the port of Bosasso. Both men and women are engaged in these livestock trades, where the women are involved in the slaughter and sale of small ruminants, while the men are engaged in the slaughter of camels, collecting animals from the market, pottering, transport and skin/hide activities. The women are also engaged in the marketing of the vegetables.

Garowe is the key transacting point for remittance flow from relatives in Europe, North America, and the Arabian Peninsula (Saudi Arabia, United Arab Emirates, Oman, Kuwait and Yemen). A number of commercial establishments had been set up in the municipality to handle these remittances from overseas relatives. This is done through the shipment of foreign goods that are sold in the market, or cash that are sent through returning workers.

⁸https://en.wikipedia.org/wiki/Economy_of_Somalia

Garowe also provides the key source of income from migrant labor (temporary employment) from IDPs, urban poor and surrounding Pastoral communities. Garowe is linked to Mogadishu mainly through trade and labor migration. The construction industry in the municipality is one of the recipients of these services which are funded by local government, international organizations/NGOs and the Diaspora. In the construction industry, men dominate women especially in manual labor.

Poverty and Social Services

Poverty levels in the country is very alarming. UNDP in its 2014 report mentioned that the country has a poverty rate of 73%, a life expectancy of 55 years, adult literacy of 31.8%, about 70% of the population is below the age of 30, and a youth unemployment rate of 67%. In its 2012 report, UNDP Somalia mentioned that the country had one of the lowest Human Development Index (HDI) in the world with a value of 0.285. It notes that there are gross "inequalities across different social groups".

Poverty incidence in Garowe is close to 40% of the population in the urban area, while in rural settings it is 52.3% and 71% in IDP settlements. According to a FAO-commissioned study, there are 3 main income class in the municipality namely: a) poor; b) middle income; and c) Better-off.In general, the poor have a 7-8 members household size; only 1 wife; two children in school (primary education), make up 23-35% of the population, have 2 family members have work; annual average income is US\$1,500-2,550; main sources of income include: casual labor, paid domestic work, firewood collection, gifts from family members, and petty trade; they can only provide 91% of their daily food requirement; water source is through kiosk, stand pipe, and shallow wells; power source is by battery, lantern or lamps; house (4mx4m; 6x12m floor area) is either owned/rented and is made of plastic sheets and sandaqad; and they have no land of their own.

The middle class have a 8-9 members household size; only 1-2 wife; 2-3 children in school (primary and secondary education), make up 45-55% of the population, have 1-2 family members have work; 2-3 income sources; annual average income is US\$2,565-6,410; main sources of income include: salaried employment, small to medium scale trading and remittance; they can only provide 104% of their daily food requirement; water source is through water tanker, pipeline and berkard (rain collector); power source is by battery and power line; house (40mx60m floor area) is either owned/rented and is made of stones; and some have their own plots.

The "Better-off" households have an average of 10-12 members household size; only 1-2 wife; 2-4 children in school (primary, secondary and tertiary education), make up 15-25% of the population, have 1-2 family members have work; 3-4 income sources; annual average income is US\$2,565-6,410; main sources of income include: medium to large scale trading and transport (i.e. taxi, pick-up); they can only provide 118% of their daily food requirement; water source is through water tanker, pipeline and berkard (rain collector); power source is by private power line and generator; house (more than 80mx80m floor area) is either owned and is made of stones and concrete; and most have their own plots in town or in the outskirts.

Project impact road construction to economy and poverty

The Project is expected to have a positive effect in the country's reconstruction, development and economic recovery. Good roads and bridges facilitate the movement of goods and services which may increase productivity, create jobs, facilitate trading and provide access to basic services to its people. Agricultural products such as livestock, fruits and vegetables are able to reach the Garowe markets and the port of Bosasso (for export) in time, good condition, and lower transport cost. The local manufacturing industry will have similar benefits from these quality infrastructures. The construction of the subprojects will also provide temporary jobs for local residents as well as IDPs, urban poor and migrant workers; where part of their wages can be used for funding micro to small enterprises. While the women may have limited role in the construction work, however, their micro, small to medium scale trading will greatly benefit from these infrastructures, through better availability, better quality and lower cost of goods to be sold in the market. Part of the income derived by family members engaged in

the construction works can be used as capital for the trading activities. Remittances to family members in the form of imported goods can easily be brought into the local market to be sold, and its earnings given to the concerned beneficiary family. Also, more livestock traded, the bigger is the tax revenues that can be collected by the Puntland Regional Authority for use in its operations and delivery of basic services to its constituents.

Land acquisition specific to selected sub-projects for road rehabilitation can be expected, however these are only temporary and limited to within the construction area and temporary facilities. Some small roadside structures, such as kiosks or vendor tables may need to be displaced during construction. However, the business owners all will be able to return once works are completed, as the existing right of way is larger than the road carriageway. Thus there will be no permanent land acquisition or resettlement. While temporary disruptions of local resident's lives in terms of construction related impacts, these are only temporary can be mitigated using standard engineering practices. Also, the roads in the municipality are arranged in a grid formation which would allow the temporary diversion of vehicles to other routes, thus avoiding delays in the movement of people, goods and services through the subproject road alignments.

4.3.4 Gender

UNDP Somalia has one of the highest gender inequality in the world at 0.776 which ranks 4th in the world. The country has an extremely high maternal mortality, rape, female genital mutilation and child marriage rates, and violence against women and girls is common. The participation and roles of women in politics and decision making is minimal which perpetuates limited female roles and inequality.⁹In Puntland, women's rights are protected in their constitution, however implementation of these provisions is lagging behind. Women make up 56.6% of the workforce in agriculture/pastoralism which constitutes 60% of the local economy. The number of women working in government had significant numbers at 1,912 (19%).Much is to be desired in the education sector, where only 36.1% of pupils in the upper primary education are composed of girls. Gender disparity is higher in upper grades due to economic constraints and early marriage. In Garowe, the women are greatly involved in the trading business, from micro to large scale. While the women butcher and sell small ruminants (goat and sheep), they however make up most of the fruits and vegetables vendors. The women are also engaged in the sale of local imported goods (i.e. rice, sugar, wheat, sorghum, etc.).

The project should make a positive impact for women in terms of providing safe and convenient access facilities for commodities (i.e. livestock, cereals, vegetables, etc.) to be traded, as well to basic social services (education, health, government offices, etc.). These good roads and bridges reduce transport cost (due to lower vehicular maintenance cost) for bringing livestock and other produce to the market thereby increasing household incomes, and reducing travel time which women can use the saved time for productive purposes (i.e. second livelihood, school tutorial services for their children, etc.). Temporary inconvenience due to vehicular traffic and limited emissions during construction work should easily be managed by the contractors using mitigation measures to be defined in the environmental management plan.

4.3.5 Land

Land is a sensitive issue in Puntland being not just a commodity that can be traded in the market. It represents multiple values which should be protected by both policy and law. Land-related disputes area leading factor in major community conflicts. For instance, the issues of rangeland enclosures and illegal land privatisation are regarded as a new phenomenon which has fuelled the community conflicts over ownership and accessing resources such as pasture and water.

[%]www.undp.org/content/dam/rbas/doc/Women's %20Empowerment/Gender_Somalia.pdf

Land is expensive in areas such as Garowe, for instance a plot of land, 20m x 20m, costs about US \$25,000 - 35,000. Ever increasing land values is due to the commercialisation of the land as the only way to earn money quickly. Similarly, the diaspora and the business community spend enormous amounts in land-related transactions.

There is a weak legal framework due to proliferation of scattered and uncoordinated land laws. Replacement of customary tenure regimes by national tenure systems and the change in tenure security has had unexpected repercussions. The 1975 Land Reform Act in Somalia took precedence over customary tenure regimes, and was formulated to give advantage to state enterprises and mechanised agricultural schemes; with limited rights accorded to small farmers, and no rights given to pastoralists in spite of their majority in the population and their dominance in export earnings. All land was declared to be state owned and administered by the Ministry of Agriculture.

Since the collapse of the former central government, the customary land tenure became the only land right ownership with the exception that the federal and state constitutions stressed that the land was owned by the government, yet the reality on the ground is quite different.

Environmental degradation and poor land use practices, unregulated land use practices such as establishment of small villages and unregulated urbanisation remain the leading environmental degradation activities.

There are weak and corrupt institutions of land administration and management, especially in resolving conflicts over land. There are formal courts and tribunal committees through which the conflicts are resolved. However, there is general preference of tribunal process over the formal courts. Though some of these cases may extend into violence and physical confrontation. The allocation of permanent land with permanent housing is also the preferred solution expressed by the displaced people themselves. Achieving local integration through permanent land allocation is however complicated by the problem that no land is actually owned by the Puntland Government. Any permanent land allocation to displaced persons in Puntland first requires that the land be acquired by the State. As the right of the State to exercise eminent domain and compulsorily purchase land does not appear to exist in Puntland there are only two viable alternatives. These are, either the State purchases the land in the same method as a private party, or negotiate the donation of the affected land from the landowners. In practice, due to the limited budget that the Puntland Government has at its disposal, the only realistic option is the negotiated donation of land.

Garowe is an urban area with residential, industrial and commercial areas. The road alignment and bridge sites are located within the urban areas with no space for agriculture and pastoral activity. While temporary land acquisition will be necessary for the construction site and temporary facilities (i.e. stock yard, worker's quarters, field office, fabrication yard, garage, etc.), these should be restored to its pre-project condition prior to their return to the rightful owners. The quarry however, may need further review if these are located within agricultural or pastoral lands which can affect local people's livelihood.

5 POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS

This Section contains a preliminary summary of the impacts that are likely to result from the Project activities as a result of the interaction between the Project components and the environmental and social receptors. It should be noted that the impacts identified here are preliminary in nature.

The potential for occurrence of the impacts identified has to be ascertained during the detailed design stage of the Project through the conduct of environmental assessment.

5.1 ENVIRONMENTAL AND SOCIAL SCREENING GUIDANCE

Screening is the first step in the ESMF preparation process. The process filters out the projects/subprojects that are not eligible for the program, and classifies only these (eligible sub-projects) on the basis on a set of evaluation criteria. The Environment category assigned to the sub-project by the screening process, will dictate the need and kind of environmental assessment instrument that had to be performed for each of these eligible sub-projects during the detailed engineering phase. The environmental and social screening to be conducted as part of the sub-project ESMPs can provide inputs into the initial identification of potential impacts by the implementation of the proposed Project activities, which can be considered as constraints that the detailed design engineers need to seriously consider in their planning process. The planners may opt to find project alignment alternatives, or amend the design to minimize the adverse effects of the proposed works. When all options are not feasible, then appropriate mitigation measures need to provided, complete with monitoring mechanisms and adequate budget.

5.2 SUB-PROJECT ENVIRONMENTAL SCREENING CRITERIA

Sub-project environmental screening should be carried out using a set of evaluation criteria. The screening criteria should include the following:

Environmental Aspects

- Sensitive areas, natural habitats, and declared forest reserves
- Felling of trees/clearance of non-agricultural vegetative cover
- Impacts on seasonal (non-perennial) streams/rivers

Social Aspects

- Loss of or access to lands including residential, institutional and commercial lands;
- Loss of livelihood including displacement of small-scale shops;
- Impact on poverty, gender, and other vulnerable groups;
- Loss of cultural/historical resources; and
- Damage or even loss of common property resources
- Risk of conflict;
- Risk of the spread of HIV/AIDS/STD and human trafficking;
- Social exclusion and even displacement most especially for IDPs by major clans.

The screening should be done through the use of an Environmental Screening Checklist of the proposed Projects to determine their Category (A, B or C). For instance, Category B Projects will result in adverse environmental impacts on human populations or environmentally important areas (including wetlands, forests, grasslands, and other natural habitats) that are less adverse than those of Category A projects which are more severe in the light of the core investment activities of the Project (these typically include infrastructure related to oil and gas, power connections, road improvements, water works, etc.)

In general, Category B impacts are localized, do not affect sensitive area/resources, and are reversible, unlike Category A projects. While all Category A projects will require EIA/ESIA with an accompanying ESMP, most Category B projects may normally require only an ESMP. Although bridge

construction, as identified as potential SURP sub-projects, would be expected to be Category B, it is anticipated that the any new bridges would have an ESIA and ESMP.

Category C projects are generally benign and may not require environmental assessment. However, all such sub-projects should be screened to determine if specific environmental management plans (e.g., waste management plan) are required.





Figure 5.1 presents a diagram illustrating the major steps in the environmental and social screening processes to be followed. The screening process should be indicate if OP 4.12 (Involuntary Resettlement) will also be triggered. If there is a possibility that land acquisition and resettlement will be necessary, then a Resettlement Action Plan (RAP) or Abbreviated RAP will likewise be necessary to be prepared.

Sub-projects that are classified as Environment Category A will not be considered for financing under this Project.

5.3 PROJECT-LEVEL ENVIRONMENTAL AND SOCIAL REVIEWS

The application of the ESMF to the proposed sub-projects enables preparation of standardized environmental and social assessment documents for review and approval by the funding agency. Sub-projects that trigger WB safeguard policies which normally results in significant environmental and social impacts, are sited in environmental sensitive areas, or cause significant physical and/or economic displacement of local people, can be identified, systematically classified and appropriate environmental assessment instrument prescribed.

To this end, all sub-projects that are classified as Category B, shall undertake the necessary environmental and social assessment, as mandated by the relevant national laws and in conformance with the safeguard policies of the World Bank that are clearly defined in this Framework.

Sub-projects that are classified as Environment Category A will not be considered for financing under this Project.

During detailed design, appropriate environmental assessment instrument such as an ESIA should be carried-out to evaluate a sub-project's potential environmental impacts within its direct and indirect influence areas; identify ways of improving project planning, design and implementation by identifying alternatives, minimizing the negative impacts, else providing appropriate mitigating measures and monitoring mechanisms to check on the effectivity of the measures introduced. Similarly, enhancement measures should also be proposed for positive effects. Any significant environmental and social issues that may arise would be addressed through an ESMP. The environmental and social management measures through the ESMP should be included as part of the scope of work in the bidding documents with corresponding budget, to ensure implementation, or contractor will be responsible for preparing the ESIA or standalone ESMP using its own organization, or contracting this service to a competent preparer (person or organization) in accordance with the generic ToR presented in Annexes 2 and 3 for Environmental and Social Impact Assessment and ESMP preparation, respectively. In addition, Annex 4 contains an Indicative Environmental Code of Conduct and Clauses for Contractors which should be appended to each sub-project ESMP and includes in all bidding documents and construction contracts.

The following section provides guidelines on how the ESIA should be undertaken.

5.3.1 Environmental and Social Impact Assessment

The screening determines whether the proposed sub-project is eligible for financing under the Project, and its Environment Category, which will dictate weather further environmental assessment is necessary or not. If a sub-project passes the screening process, then the scope of the environmental study and the instrument required (ESIA, EIA, Checklist, ESMP, etc.) to be prepared will then be prescribed.

In the case of the potential sub-projects to be selected for SURP financing, it is expected that any bridge construction would require the preparation of an ESIA. The necessary steps in conducting an ESIA are described below:

Step 1: Scoping

This process is intended to define the scope of the environmental assessment. Issues relevant for ESIA will be identified and the appropriate studies and assessment method to be used will be prescribed and agreed upon. Also important is the agreement between the regulators and the preparers on the environmental study area, so that the assessment activities are focused on the area that matters which can be further classified as direct impact area, secondary impact area, and regional impact area.

Terms of Reference (ToR) for the ESIA study is normally prepared as an output of the scoping exercise. The ToR needs to be approved by the relevant national ministry and the World Bank before proceeding with the study.

Step 2: Baseline Data Collection

It is essential that the current environmental condition in the Project site be characterized prior to any civil works can be made. To do this, baseline data collection both primary and secondary (physical, biological, socio-economic and so on) should be collected following an agreed methodology and time frame. Seasonal differences should be taken into consideration in the data collection. There are standard methodologies available and survey specialists for the various environment assessment parameters, such as for air, water, soil, noise, biodiversity, and socio-economics. The information gathered should be sorted, stored in an appropriate media (i.e. hard copies in filing cabinets, electronic data in computer hard drives, etc.) that can be readily be accessed by survey team members or the Project owner upon request.

Step 3: Identify Environmental Impacts

The ESIA exercise will identify potential impacts and assess their significance. To do this, the data gathered should first be processed, analysed and interpreted. Data analysis may be in the form of simple comparison of present against previous statistics which is appropriate for socio-economics; laboratory or on-site analysis of samples, or computer-aided modelling of test results. The identified impacts be it direct or indirect, are assessed based on their permanence, magnitude, reversibility, and occurrence. Categories of impacts, direct, indirect or cumulative, should be indicated.

Step 4: Design Mitigation Measures

Efforts should be taken to avoid or minimize adverse environmental impacts whenever possible. Else, appropriate mitigation measures need to be proposed to address these impacts and monitoring plan need to be in-place to check on the performance of these measures. Social impacts such as physical, economic or even cultural displacement will be addressed by other instruments such as RAP/ARAP, Gender Action Plan (GAP). While negative impacts need to be mitigated, positive ones do need to be enhanced. These enhancement measures should also be taken into consideration in the planning process.

Step 5: Public Consultation and Participation

Consistent with the Bank's transparency policy in all of its projects, it is essential that meaningful public participation is observed in the ESIA process. The most popular way of obtaining public participation is through Public Consultation meetings. Early in the project planning process, local stakeholders need to be informed of the project, and their support and cooperation solicited. This concern (participation) is even more relevant in the event of physical, economic and cultural displacement of local people. It is essential that affected households and their leaders participate in planning for their future such as compensation for affected assets, suitable relocation site, livelihood and income restoration, employment opportunities in the construction project, etc.

Step 6: Develop Environmental and Social Management Plan (ESMP)

It is anticipated that any bridge construction, as well as any road rehabilitation, will require development of an ESMP.

The mitigation and enhancement measures to address the anticipated adverse and positive impacts, will need to be properly organized into workable plan. The ESMP should contain: a) the significant environmental and social impacts likely to arise from project implementation; b)proposed mitigation and enhancement measures needed to address these issues; c) the location where these impacts will be felt and addressed; d) responsible persons/parties; e) schedule of implementation; and d) budget. The entries in the ESMP can be further arranged based on the project phase (i.e. Pre-Construction; Construction; and Operations), as well as the affected environment (i.e. Physical Environment, Biological or Natural Environment; Socio-Economic Environment). This plan is subject to the reviewed and approval by the Project owner and the World Bank as part of the ESIA or as a stand-along document; prior to its inclusion into the bidding documents, and implementation.

Step 7: Prepare ESIA Report

The ESIA report is to be prepared following the standard report format prescribed by the World Bank, and contains the elements that had been described in the first 6 steps above. In the event the environment ministry of Somalia has an ESIA report format different from the Bank, then a separate report can be prepared to comply with this requirement but should contain the same elements in the ESIA as a minimum. The ESIA will also be posted on the WB's website in accordance with its transparency policy, after it has undergone review and approval by the Bank.

Step 8: Clearance

All ESIAs/ESMPs should be submitted to the World Bank for review and approval in compliance with OP 4.01 and any other relevant policies, procedures and guidelines. However, before the report is submitted to the Bank, it will first be reviewed by the Project Owner, where only the approved report is forwarded to relevant national entities such as the Ministry for Environment, Wildlife and Tourism; for review and approval, along with all the relevant supporting documents. The WB-approved ESIA

and ESMP will be posted on the World Bank website for several days, before the document is finally considered approved and ready for inclusion into the bidding documents. The ESMP will likewise be translated into the Somali language for local distribution.

5.4 POTENTIAL IMPACTS

The Project is envisaged to have a range of positive and negative environmental and social impacts. Some of these are a direct result of project construction activities which can be mitigated or enhanced, while others are a consequence of Project designed which can be avoided or minimized if a possible suitable alternative design is developed.

5.4.1 Potential Positive Impacts

There are positive impacts that can arise from the Project implementation. Some of the benefits that could result from the Project implementation will include:

- Reduced travel time which can provide local people especially women more time to do other productive endeavours;
- Reduced Vehicular maintenance cost due to improved road conditions, that translates to lower transport cost for goods, services and passengers
- Increased household incomes due to reduced transport cost
- Agricultural and manufacturing products can reach the market at a shorter time and better condition; and
- Local people can have a more convenient means of accessing basic social services (i.e. schools, hospitals/health centres, etc).

5.4.2 Potential Negative Impacts

The potential negative impacts that could result from the Project are presented in Tables 5.1, 5.2 and 5.3 for the upgrading of existing roads and construction of new bridges. These impacts are most likely to occur during the Construction phase.

PO	TENTIAL ACTIVITIES	POTENTIAL IMPACT/CONCERNS
•	Establishment of	Environmental
	Temporary Construction	Biodiversity
	Facilities	Loss of biodiversity
•	Clearing and Grabbing;	 Loss of natural vegetation
•	Hauling, sorting, temporary	 Introduction of exotic and invasive vegetative species
	Storage, and disposal/reuse	Water Resources
	of excavated materials;	Modification in Project site terrain leading to alteration of site
•	Hauling, laying and	hydrology;
	compaction of sub-base	 Clogged drainage and waterways leading to flash floods;
	materials;	 Poor flood control leading to soil erosion
•	Double surface treatment	• Deterioration of existing river and ground water quality due to
	with bitumen and chips;	indiscriminate disposal of solid and liquid waste, as well as
٠	Single seal surface	petroleum products leakages from ill maintained construction
	treatment with bitumen and	equipment and vehicles
	chips.	• Deterioration of surface and ground water quality due to
•	Drainage Improvement	unsanitary toilet discharges into these water sources
	such as side ditch	
	excavation/clearing and	
	connecting to receiving	Soils
	waterways;	• Uncontrolled alteration of the natural terrain caused by
•	Lining of the ditches either	construction works, which may cause flash flooding and soil
	with concrete or masonry	erosion.
	stone	Air Quality

Table 5.1	: Potential	Negative	Impacts of	f Roads	Rehabilitation	Works (Construction)
14010 3.1	• I Otentiai	in the gative	impacts of	noaus	Kenabintation	WOINS (construction)

POTENTIAL ACTIVITIES	POTENTIAL IMPACT/CONCERNS
 Installation of side walkways Installation of other road appurtenances Cleaning of Construction area, dismantling of 	 Increased levels of air pollution caused by the operations of construction vehicles and heavy equipment. Increased noise levels due to construction works and operation of vehicles and heavy equipment <i>Climate Change</i> Increased greenhouse gases emission to atmosphere due to the
temporary construction facilities, hauling out and disposal of waste materials, and demobilization.	 operations of construction vehicle and equipment; as well as the preparation of asphalt <i>Chemical Use</i> Spilled oil and other petroleum products contamination of surface and subsurface soil biota
	 Waste Management Foul odour, rodent and insect infestation of uncollected or improper disposal of garbage leading to public health issues Siltation of waterways and deterioration of water quality due to improper collection and disposal of construction domestic waste
	Social
	 Land acquisition and resettlement Physical displacement of local residents due to land acquisition for ROW and temporary construction facilities; Uncontrolled and unplanned urban development due to influx of migrant workers
	 Displacement of Livelihoods Temporary loss of livelihood due to displacement of affected roadside kiosks or vendor tables resulting from construction works
	 Cultural Heritage Loss of cultural resources that are damaged during construction works Loss of local cultural, identity and heritage due to construction related damages to cultural resources, and the influence of
	migrant workers
	 Social Tension and Conflict Marginalization of local women or vulnerable groups Potential conflict between workers and stakeholders due to lack of proper orientation for workers on local culture and traditions Further displacement of IDPs by the dominating clan.
	 Traffic and Transportation During Construction: Increase travel time due to obstructions on road under upgrading related to construction works
	 During Operations: Increase in vehicular traffic speed on the upgraded roads resulting in reduced travel time Reduced Vehicular Maintenance Cost due to better road condition Reduced transport cost for commuters and cargo (including farm produce bound for the market) due to lower vehicular maintenance cost Increase productivity due to reduce down time related to faster vehicular traffic speed

POTENTIAL ACTIVITIES	POTENTIAL IMPACT/CONCERNS
	Public and Occupational Health and Safety
	During Construction
	• Increase risk of accidents within the road segments under construction due to on-going works;
	• Risk of the spread of HIV/AIDS, STD that are carried by migrant workers infected with these diseases;
	Human trafficking
	 Delayed response to medical emergencies due to road obstructions along segments under upgrading
	During Operations:
	• Better access to basic social services that includes health facilities and workers due to better roads Faster response time to provide health care to local people most especially during medical emergencies

Table 5.2: Potential Negative Impacts of Bridge Works (Construction) POTENTIAL ACTIVITIES POTENTIAL IMPACT/CONCERNS

I OTENTIAL ACTIVITIES	
Establishment of	Environmental
 Establishment of Temporary Construction Facilities Geotechnical investigation Clearing and grabbing Hauling, sorting, temporary Storage, and disposal/reuse of excavated materials; Partial diversion of stream to establish a suitable working environment Foundation excavation and construction Construction of abutment/pier Fabrication and Installation of sub and super structures; Construction of bridge approaches Installation of other bridge appurtenances Cleaning and restoration of areas used as temporary construction facilities, and demobilization. 	 Biodiversity Loss of biodiversity in terrestrial and aquatic environments; Loss of natural vegetation Introduction of exotic and invasive vegetative species Water Resources Alterations of natural waterway configuration leading to change in river/stream hydrology and possibly increase occurrence of flash flooding in the area Poor flood control leading to soil erosion Deterioration of existing river water quality due to indiscriminate disposal of solid and liquid waste, as well as petroleum products leakages from ill maintained construction equipment and vehicles Deterioration of surface and ground water quality due to unsanitary toilet discharges into these water sources
	 Soils Uncontrolled alteration of the natural river configuration caused by construction works, which may cause flash flooding and river bank erosion
	 Air Quality Increased levels of air pollution caused by the operations of construction vehicles and heavy equipment Increased noise levels due to construction works and operation of vehicles and heavy equipment Increased greenhouse gases emission to atmosphere due to the operations of construction vehicle and equipment; as well as the preparation of asphalt from bitumen Waste Management Foul odour, rodent and insect infestation of uncollected or improper disposal of garbage leading to public health issues. Siltation of waterways and deterioration of water quality due to improper collection and disposal of construction and domestic waste
	Social Land acauisition and resettlement

POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS

POTENTIAL ACTIVITIES	POTENTIAL IMPACT/CONCERNS
	 Temporary physical displacement of local residents due to land acquisition for ROW and temporary construction facilities; Uncontrolled and unplanned urban development due to influx of migrant workers Displacement of Livelihoods
	Temporary loss of livelihood due to displacement of affected roadside kiosks or vendor tables resulting from construction works;
	 Cultural Heritage Loss of cultural resources that are damaged during construction works Loss of local cultural, identity and heritage due to construction related damages to cultural resources, and the influence of migrant workers
	 Social Tension and Conflict Marginalization of local women or vulnerable groups Potential conflict between workers and stakeholders due to lack of proper orientation for workers on local culture and traditions Loss of houses of informal settlers residing on acquired lands Further displacement of IDPs by the dominating clan.
	 Traffic and Transportation During Construction: Increase travel time due to traffic diversion to allow construction of new bridge During Operations Increase in which for speed due to new bridge that shorten
	 Increase in vencular trance speed due to new bridge that shorten travel distance and thus reduced travel time Reduced Vehicular Maintenance Cost due to better bridge condition Reduced transport cost for commuters and cargo (including farm produce bound for the market) due to shorter distance travelled and
	 lower vehicular maintenance cost Increase productivity due to reduce down time related to faster vehicular traffic speed
	 During Construction: Increase risk of accidents along diversion road to allow construction of new bridges Risk of the spread of HIV/AIDS, STD that are carried by migrant workers infected with these diseases Human trafficking Delayed response to medical emergencies due to longer travel distance through diversion roads
	 During Operations: Better access to basic social services that includes health facilities and workers due to shorter distance travelled made possible by new bridges Faster response time to provide health care to local people most especially during medical emergencies

5.5 ASSESSMENT OF PROJECT ALTERNATIVES

One of the basic WB safeguard policies is avoidance and minimization of adverse environment and social impact for Bank financed projects. This can be done by reviewing project alternatives, modification of project designs or road alignments. It is only when such actions are unable to find other viable options to the proposed project and its components, will mitigation be considered. This assessment requires a systematic comparison of possible project configuration that includes design, location, technology, possible construction methods, and sources of materials and so on, in terms of their adverse impacts and feasibility of their mitigation, cost, suitability under local conditions and institutional capacity of implementers in carrying out the work and monitoring. For each alternative, the environmental and social cost should be quantified where possible and economic values attached where feasible, and the basis for the selected alternative identified. The analysis of alternative should include a NO ACTION alternative. The analysis of alternatives is contained in the feasibility studies for the roads and bridges in Garowe.
6 ENVIRONMENTAL AND SOCIAL MITIGATION MEASURES

This Section contains a preliminary summary of possible measures intended to manage the adverse impacts that are likely to result from the Project implementation. It should be noted that the measures identified here are preliminary in nature. The final measures will be determined during the detailed design stage of the Project, when the final sub-project road details have been finalized, and environmental and social impacts have been updated.

6.1 APPROACH TO DEVELOPING MITIGATION MEASURES

Options to address the various environmental and social issues identified have been worked out based on the review of good practices and requirement of compliance with existing legal provisions as well as consultations with the relevant stakeholders. The principle that guides the approach to mitigation measure development is outlined in Table 6.1.

APPROACH		PRACTICE			
Seek viable alternatives firs avoid or minimize particula adverse impacts	st to • ir	 Consider viable alternatives to a proposed Project and its component that can avoid or minimize adverse impacts prior to accepting appropriate mitigation These alternatives should also be able to achieve the Project objectives to maximize benefits and at the same time minimize undesirable impacts 			
Take corrective measures to minimize unavoidable effec	ets.	Limit the scope of the work to within the Project influence area. If the impact extent is undetermined or goes way beyond the Project area, in most likelihood, the sub-project is a Category A which is not eligible for funding under the Project Consider doable corrective measures intended to reduce adverse impacts to acceptable government and/or international standards. Seek existing effective mitigation measures already applied in on- going Bank financed projects. The list of best practices is a good source of these information.			
Identify and address potenti gender concerns	ial •	Prepare a Gender Action Plan to address disparities between treatment of women in the workplace, potential vulnerability of women (especially those who are widows and/or single heads of households, of advanced age or having a disability), and other gender- related issues of relevance in the project area.			
Public Consultation	•	Conduct public consultation meetings to disclose proposed preliminary mitigation measures, seek comments and suggestions from stakeholders on the proposed measures especially those that directly affect them (i.e. mode of resettlement, rates applied for compensation of loss assets, location of waste disposal sites, etc.)			

Table 6.1: Approach to Mitigation Measure Development

6.2 MITIGATION MEASURES

Based on the identified possible adverse environmental and social impacts, possible mitigation measures suitable to the Project are provided in Table 6.2 and Annex 4.

Table 6.2: Potential Impacts and Mitigation Measures (roads and bridges construction)

POTENTIAL IMPACT/CONCERNS		POTENTIAL MITIGATION MEASURES		
Environmental				
Biodiversity			Avoid environmentally sensitive areas in locating the	
•	Loss of biodiversity in terrestrial and		bridge and quarry sites	
	aquatic environments;			

POTENTIAL IMPACT/CONCERNS	POTENTIAL MITIGATION MEASURES		
Loss of natural vegetation Introduction of exotic and invasive vegetative species	 Seek advice/clearance from appropriate Government agencies on the location of these sensitive environments Minimize removal of existing vegetation within the project site, else restore/rehabilitate areas temporarily cleared of its vegetation Use of appropriate indigenous species (tree/shrub/grass/cover crop) for rehabilitating temporarily disturbed/cleared areas Other protective actions specific to OP 4.04 Natural Habitats (if found applicable) 		
 Water Resources Alterations of natural waterway configuration leading to change in river/stream hydrology and possibly increase occurrence of flash flooding in the area Poor flood control leading to soil erosion Deterioration of existing river water quality due to indiscriminate disposal of solid and liquid waste, as well as petroleum products leakages from ill maintained construction equipment and vehicles 	 Conduct hydrologic studies to determine the best riverbed configuration at the new bridge site that will minimize any adverse change in river hydrology Provide for river training and bank stabilization measures immediately upstream and downstream of the new bridge location Ensure proper preventive maintenance by contractor of their construction vehicles and heavy equipment used in the project Ensure the establishment of properly designed storage facilities for construction materials and temporary waste storage areas Conduct regular housekeeping in the construction site; Identify and secure appropriate permits for waste disposal sites from the government 		
 Soils Uncontrolled alteration of the natural river configuration caused by construction works, which may cause flash flooding and river bank erosion. 	 Conduct hydrologic studies to determine the best riverbed configuration at the new bridge site that will minimize any adverse change in river hydrology Provide for river training and bank stabilization measures immediately upstream and downstream of the new bridge location Install appropriate river bank stabilization measures such as vegetative or structural measures as may be recommended in the hydrologic study 		
 Air quality Increased levels of air pollution caused by the operations of construction vehicles and heavy equipment. Increased noise levels due to construction works and operation of vehicles and heavy equipment Increased greenhouse gases emission due to the operations of construction vehicle and equipment; as well as the preparation of asphalt from bitumen. 	 Ensure that Project vehicles and other equipment undergo scheduled preventive maintenance for proper exhaust emission Construction truckdrivers to observe established speed limits on earthen roads during dry periods Regular watering of unpaved roads Avoid burning of biomass as much as possible and use fire only in situations where this is least environmental damaging Ensure that Project vehicles and other equipment 		
Increase greenhouse gases emissions	 Ensure that Project venicles and other equipment undergo scheduled preventive maintenance for proper exhaust emission Construction truck drivers to observe established speed limits on earthen roads during dry periods 		
Chemical Use	• Ensure proper preventive maintenance by contractor of their construction vehicles and heavy equipment used in the Project		

POTENTIAL IMPACT/CONCERNS	POTENTIAL MITIGATION MEASURES			
Spilled oil and other petroleum products contamination of surface and subsurface soil biota	 Ensure the establishment of properly designed storage facilities for construction materials and temporary waste storage areas Conduct regular housekeeping in the construction site; Identify and secure appropriate permits for waste disposal sites from the government 			
 Waste Management Foul odor, rodent and insect infestation of uncollected or improper disposed garbage leading to public health issues. Siltation of waterways and deterioration of water quality due to improper collection and disposal of construction domestic waste. 	 Prepare and implement a waste management plan subject to the concurrence of local governments; Provide garbage receptacles in strategic places within the construction area, and regularly collect and properly deposit of these waste in the designated disposal areas; As much as practicable, reuse construction spoils that meets construction material specifications; When practicable, compost organic and degradable waste in suitable container, and provide this to interested farmers for their crop production 			
Social				
 Land acquisition and resettlement Loss of pasture and/or productive agricultural land Increasing demand for scarce suitable lands within the municipality for settlements by displaced communities 	 Prepare and implement the Resettlement Plan subject to WB approval, for each of the sub-projects with significant resettlement issues, using the project's Resettlement Policy Framework (RPF) for guidance; Ensure all resettlement issues are resolved prior to the start of construction; Ensure continual community consultation Ensure establishment of functioning Grievance Redress Mechanism Discourage land speculation in the area 			
 Displacement Maintaining Livelihoods Loss of residential, institutional and commercial lands Loss of livelihood due to displacement of affected households resulting from construction works. 	 Prepare and implement the Resettlement Plan subject to WB approval, for each of the sub-projects with significant resettlement issues Ensure all resettlement issues are resolved prior to the start of construction Ensure continual community consultation Require contractors to give preferential hiring to qualified members of Project affected households Ensure establishment of functioning Grievance Redress Mechanism 			
 Gender Issues Disparities in treatment of women and men (e.g. in the workplace, ownership/control of property or household assets, etc.) 	Prepare a Gender Action Plan to address disparities between treatment of women in the workplace, potential vulnerability of women (especially those who are widows and/or single heads of households, of advanced age or having a disability), and other gender-related issues of relevance in the project area.			
 <i>Cultural Heritage</i> Loss of cultural resources that are damaged during construction works; Loss of local cultural, identity and heritage due to construction related damages to cultural resources, and the influence of migrant workers. 	Follow the protocol/procedures for "chance finds" in line with Physical Cultural Resources (OP/BP 4.11)			

POTENTIAL IMPACT/CONCERNS	POTENTIAL MITIGATION MEASURES		
 Social Tension and Conflict Physical and economic displacement of shop owners and vendors operating within the road alignments. Marginalization of local women or vulnerable groups; Potential conflict between workers and stakeholders due to lack of proper orientation for workers on local culture and traditions. Loss of houses of informal settlers residing on acquired lands. 	 Prepare and implement the Resettlement Plan of each subproject that is acceptable to the Project owner and WB Ensure all resettlement issues are resolved prior to the start of construction Ensure continual community consultation, and ensure that vulnerable groups and traditionally marginalized groups are represented. All public consultation meetings are to be well documented. Ensure establishment of functioning Grievance Redress Mechanism Prepare and implement a Gender Action Plan acceptable to the Project Owner and WB Proper selection of construction workers, with priority to hiring of qualified members of project affected households or local residents Holding of orientation to all construction workers on local customs and traditions 		
 Traffic and Transportation During Construction: Increase travel time due to traffic diversion to allow construction of new bridge; During Operations: Increase in vehicular traffic speed due to new bridge that shorten travel distance and thus reduced travel time Reduced Vehicular Maintenance Cost due to better bridge condition Reduced transport cost for commuters and cargo (including farm produce bound for the market) due to shorter distance travelled and lower vehicular maintenance cost Increase productivity due to reduce down time related to faster vehicular traffic speed 	 During Construction phase: Conduct public information drive and install informative sign at strategic areas along the road alignment to advise local residents and motorists of the traffic management plan, including the alternative routes Deploy traffic aides to guide motorists and pedestrians along the construction area or alternative routes During Operations Deploy law enforcers to implement traffic rules including vehicular speed limit Local government to conduct regular maintenance of the upgraded road 		
 Public and Occupational Health and Safety During Construction: Accidents and medical emergencies at the workplace. Increase risk of accidents along diversion road; Risk of the spread of HIV/AIDS, STD and other communicable diseases Human trafficking Delayed response to medical emergencies due to longer travel distance through diversion roads. During Operations: Better access to basic social services Faster response time to provide health care to local people 	 <i>Construction Period</i> Prepare and implement an Environmental, Health and Safety (EHS) plan which will outline procedures for the prevention of health and safety incidents, as well as responding to emergencies such as accidents and illnesses in the workplace that require immediate attention and treatment Make it mandatory for all workers to wear suitable Personal Protective Equipment (PPE) as appropriate Train selected workers on first aide and provide them with appropriate first aid kits Orient workers on proper health and safety measures to be followed in the workplace Develop Emergency Response plan and ensure provisions of First Aid boxes Conduct public awareness and prevention campaign involving Project construction workers and adjacent communities on HIV/AIDS STD and other communicable diseases and human trafficking; 		

POTENTIAL IMPACT/CONCERNS	POTENTIAL MITIGATION MEASURES
	 Arrange with nearby suitable hospitals/health clinic to treat Project staff and workers that are sick or had been victims of accidents in the workplace. Orient ambulance drivers and emergency response team on alternative routes, and instruct traffic aides to assist the medical and emergency response teams when necessary. Establish a code of conduct to be followed by all construction supervisors and workers, that will include disciplinary action in case of gross violation of the guidelines.

6.3 OTHER STUDIES

6.3.1 Gender Mainstreaming

The rights of women are protected in the Constitution of Puntland. Women are given the right to education, allowed to work, own properties, hold public office, and receive inheritance. However, if disparity between men and women may possibly occur in the Project during its implementation in areas such as priority in hiring, pay rates for similar work done, safe working environment, health and sanitary facilities in the work place and office and others, then there is a need to mainstream gender concerns in the project. To do this, there is a need to conduct a study to identify and assess gender issues and opportunities in the project and the locality. The results of the study would serve as guide in adopting and updating the African GAP into all stages and components of the Project. The updated plan should identify the project activities and its impacts on women, and propose mitigation and enhancement measures, name point/focal persons/organizations responsible of carrying out the measures, name verifiable indicators to monitor performance, prescribe implementation time frame and budget. The GAP comes with it, a monitoring program that will help decision makers keep track of the GAP implementation in order to assess if the mitigation is effective, else alternatives measures need to be put in-place.

A guide to the conduct of Gender Mainstreaming and Vulnerability Assessment is provided in Annex 7.

6.3.2 Chance Find Protocols

In the event of chance discovery of items of historical/cultural significance (e.g. religious shrine, archaeological site, cemetery etc), all forms of excavation in and around the site will be stopped. Subsequently, experienced archaeologists and anthropologist would be recruited to carry out an investigation and propose plans for the protection and preservation of such cultural artefacts (Annex 6).

During the Project commencement meeting, all contractors will be made aware of the presence of an on-site archaeologist who will monitor earthmoving and excavation activities.

The following procedure is to be followed in the event that archaeological site is discovered.

- All construction activity in the vicinity of the find/feature/site will cease immediately;
- The discovered find/ feature/ site will be delineated;
- Record the find location, and all remains are to be left in place;
- Secure the area to prevent any damage or loss of removable objects;
- The on-site archaeologist will assess, record and photograph the find/feature/ site;
- The on-site archaeologist will undertake the inspection process in accordance with all Project health and safety protocols under direction of the Project Health and Safety Officer; and
- In consultation with the statutory authorities, the on-site archaeologist will determine the appropriate course of action to take.

Annex 6 provides more details in the protection of cultural properties.

6.3.3 Resettlement Policy Framework

Resettlement or rehabilitation is broadly defined as the process by which those adversely affected are assisted in their efforts to improve, or a least to restore their incomes and living standards.¹⁰ So whenever the Project will result in physical and economic displacement of persons/entities, then a Resettlement Plan will need to be prepared and implemented after approval by the Project owner and the WB. Since at this stage of the Project, no details are still available to fully assess the resettlement related impact that will be generated as a result of its (Project) implementation, a Resettlement Policy Framework has been prepared.

Individual resettlement action plans (RAPs) for each sub-project will also need to be prepared. If the less than 200 affected households are adversely affected, and Abbreviated RAP may be prepared. The RAP is subject to the approval of the Project Owner and WB during detailed design when details of the sub-projects are available. The approved RAPs will be posted on the World Bank website as part of its transparency policy, and will likewise be translated into the Somali language for local disclosure.

¹⁰Web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEVELOPMENT/ETINVRES/0.contentM DK:20148221~menuPK!1242368~pagePK:14

7 PUBLIC PARTICIPATION/CONSULTATION

7.1 INTRODUCTION

A key factor that exists in all successful project development and implementation is meaningful participation by all stakeholders. The more active involvement of local people in the planning and implementation processes, the greater the likelihood that resource use and protection problems will be resolved as well as the likelihood of development opportunities occurring in a balanced manner that benefit most communities affected by the project. In line with the requirements of the World Bank Safeguards for Environment Category A and B projects, the preparation of this ESMF included the conduct of public consultations involving Project stakeholders such as relevant government agencies, beneficiary communities and mass organisations residing/operating/having jurisdiction within the Project area. The consultation process began on 27 May 2016and continued until the end of January 2017. A public information dissemination event took place in the Project area on 12 January 2017. The minutes of the public consultation meeting are found in Annex 10.

7.2 **OBJECTIVES**

Specifically, the objectives of public participation included:

- Documentation of stakeholders' opinion/views and concerns on the Project;
- Seeking consensus on some issues such as cut-off date, compensation rates, mode of relocation, participation of stakeholders in the Project, etc.
- Obtaining local and traditional knowledge that may be useful for Project planning and implementation;
- Seeking acceptability of Project alternatives, mitigation measures and trade-offs;
- Ensuring that important impacts are not overlooked, and that benefits are optimised;
- Minimizing possible future conflict through the early identification of contentious issues;
- Providing an opportunity for the public to influence the designs and implementation in a positive manner;
- Improving transparency and accountability in decision-making; and
- Increasing public acceptability of the Project.

7.3 IDENTIFYING STAKEHOLDERS

Stakeholders for the purpose of this Project are be defined as all those people and institutions who have an interest in its planning and execution.

- Local Residents
- Project Affected Persons;
- Elders of Clans/Sub-Clans
- Religious leaders
- NGOs/CBOs
- Local Government
- State Ministries, Departments and Agencies
- Local mass organisation and professional groups (e.g., market vendors, road users, transport workers)

While the ESMF public consultations and stakeholder participation provide stakeholders with a general understanding of the Project, as well as the opportunity to contribute to the planning process and express their concerns and issues on the Project. Subsequent ESIAs/ESMPs public consultation and stakeholders engagement will addresses same issues specific to individual sub-projects.

Table 7.1 below, provides a mechanism for the identification of Project key stakeholders:

WHO	HOW TO IDENTIFY THEM
	Field Survey
People living in the vicinity of the	• Identify the local government area (s) that the proposed road
proposed works	subproject falls within
	• Review available data to determine the stakeholder profile of
	the stakeholder or relevant group
	• Use identified groups and individuals to tap into stakeholder
	networks to identify others
	• Identify key individuals, dominant clan and/or groups through
Special interest groups	organised groups, local clubs, community halls and religious
	places
	• Organisations such as environmental groups will be aware of
	similar local groups or individuals
Individual people who own	• Advertise in local newspapers, telling people that they may be
properties that will be directly or	affected and asking them to register interest in attending
indirectly affected	meetings or receiving further information
Business (owners and employees)	Field Survey
	Municipal lists or property registers
Ministries, Departments, Agencies	Constitutional Responsibility/ministerial mandate

Table 7.1: Identifying Key Stakeholders

7.4 ESMF AND PUBLIC PARTICIPATION

During the course of the preparation of this ESMF key stakeholders were consulted. Such meeting was held on 12 January 2017 at the Puntland Center for Peace and Development which was attended by the municipal mayor, concerned villages leaders, local residence representatives and other stakeholders. Annex 10 contains photographs taken during some of the meetings, along with the highlight of such activities.

During the meeting held on 12 January 2017, the following topics were discussed:

- Project's objectives in terms of stakeholders" needs and concerns;
- Feasible alternatives (in particular alternative locations) and their relative merits in terms of environmental, social and economic factors;
- Environmental and social issues and establish the scope of future studies and/or site-specific management plan; and
- Processes for continued stakeholders" involvement.

Generally, with regard to stakeholder's perceptions about the Project, there was a general acceptance of the Project across the locations visited and groups met. The Project development objectives, scope and safeguard concerns were extensively described to all the stakeholders that includes local communities in the visited locations. The highlights of the meetings are found in Annex 10.

7.5 ESMF COMMUNICATION PLAN

The ESMF Communication Plan refers to specific guidelines and protocols consistent with the principles of participation that will be pursued in the Project. Included in the Communication Plans, will be the disclosure of the Social Safeguard Framework of the Project. Among the topics to be included in the Communication Plan are:

- Establishment of feasible participation mechanisms;
- Participation mechanisms prepared with the basic objectives of transparency, responsibility of delivery of public service and an anti-corruption approach;
- Promotion of fora for dialogue based on realistic expectations; and
- No discrimination for vulnerable groups, such as women, youth, older persons, disabled, displaced populations, minority clans, and indigenous communities.

7.5.1 Tools for Consultation of Stakeholders

Depending on the target stakeholder and objective of consultation, one or a combination of the following tools can be used during the conduct of consultation.

STAKEHOLDERS	CONSULTATION TOOLS
Municipal Government	Phone calls, e-mails, visit, facilitated meetings, electronic media
Project Implementing Unit,	Phone calls, e-mails, visit, meetings, electronic media
Contractors	
Local residents, Project affected	Consultations with concerned clan elders, Focus group discussions,
persons/entities, Clan elders,	interview using questionnaires, worship centres, community town
market/vendors, squatters	hall meetings, print materials, and texting by phone
Vulnerable groups/women/youth	

 Table 7.2: Tools for the consultation of stakeholders

7.5.2 Future Consultations and Communication

Consultation will continue before, during and after Project implementation. The Project is required to provide relevant materials in a timely manner prior to consultation and in a form and language that are understandable and accessible to the groups being consulted. For the subprojects, the materials are to be translated into the Somali language.

This requirements and phasing of consultations are as follows:

Pre-Implementation

- Organisation of public stakeholder workshops and comments incorporated into final ESMF;
- During the preparation of individual ESIA/ESMP;
- Interested groups and communities affected will be informed about the proposed sub-projects and their respective activities, how they could be impacted; appropriate mitigation measures proposed, and implementation time frames;
- Consultation on the draft and final ESIA/ESMP; and
- Translation into Somali language and Public disclosure of Final ESMF (approved by WB) incountry at designated centres accessible to stakeholders and at the WB Info Shop (English version).

During Implementation

- Stakeholder communities will be informed about the date/schedule of Sub-Project commencement, especially those who will be involved in the monitoring and evaluation of prescribed mitigation measures;
- During the actual monitoring and evaluation of the ESMP implementation, to determine the environmental performance of the contractor, effectiveness of the ESMP, and if there is a need to revise the ESMP (during mid-term project review or as the need arises); and
- Performance Audit of ESMP (after every 6 months after the commencement of civil works).

Public participation within the Project cycle is indicated in Annex 8.

8 ESMF IMPLEMENTATION AND MANAGEMENT

8.1 INTRODUCTION

The successful application of the ESMF as a guide in the preparation of appropriate environmental assessment instrument (i.e. ESIA or ESMP) depends on the commitment of the concerned institutions in carrying out their respective roles, as well as the capacity of these units to do the job effectively. An institutional arrangement had been proposed that clearly state the roles of these stakeholders though out the Project cycle. Also, the capacity building activities have been devised to ensure that the units/ organization assigned to perform the relevant tasks are capable of doing so.

8.2 INSTITUTIONAL ARRANGEMENTS

One of the tasks prescribed in the ESMF is to identify the appropriate individuals/entities to be involved in the Project activities, and define their respective roles and responsibility. Details of the institutional arrangements are found in Table 8.1.

Table 8.1: Safeguard Responsibilities

ENTITY	RESPONSIBILITIES						
	Compliance with World Bank Safeguards Policies and other relevant country						
PIU	laws in line with this ESMF						
	Smooth and efficient implementation of the Project						
	ARAP/RAP preparation;						
	• Effective review, approval and implementation of the ESMPs based on the						
	ESMF						
	Assists PIU to fully comply with World Bank Safeguards Policies and other						
Safeguards	relevant country laws						
Specialist	• Take the lead in ensuring adequate screening and scoping of Project for the						
	appropriate safeguard instrument						
	• Ensure adequate review of all safeguard reports (monthly and quarterly)						
	before sending to World Bank						
	Supervision (and enforcement where necessary) of the contractors,						
	supervisors, training of contractors and workers, monitoring of the						
	implementation of the ESMF and other safeguard instruments						
	Various depending on which specific Ministry, Department or Agency:						
BRA	• Take the lead in screening, scoping, review of draft ESIA/ESMP for the						
	government, receiving comments from stakeholders during public hearing of						
	the Project proposals, and convening a technical decision-making panel (if						
	any ironmontal and social liability investigations, and perform monitoring						
	and evaluation work						
	and evaluation work.						
	Provides overall leadership during public consultation meetings with critical						
	Project stakenoiders, in order to gain their support/cooperation/consensus in						
	• Ensures that Project implementary comply with all relevant environmental						
	• Ensures that Floject implementers comply with an relevant environmental laws and policies						
Engineering	 Supervise Consultants hired to prepare the feasibility studies and basic 						
Supervision	engineering design of proposed subproject infrastructures:						
Agent	 Supervise the Consultants hired to prepare ESMP for each of the approved 						
8	road and bridge subprojects, during the Detailed Design phase.						
	 Assist in the preparation of tender documents including the inclusion of the 						
	ESMP as part of the scope of work of the bid documents:						
	• Supervise the contractors hired to implement the road and bridge						
	subprojects, including its ESMP.						

ENTITY	RESPONSIBILITIES				
	• Assist the BRA in the monitoring of Project performance including the				
	environmental concerns (i.e. conduct of environmental assessment,				
	procurement, and implementation of ESMP).				
Independent	• Provide monitoring support of all projects in the Bank Somalia portfolio,				
Monitoring	including SURP				
Agent					
Consultants	Prepare the ESMF following WB safeguards policy and Somalia				
	environmental laws during the basic design phase;				
	Conduct Environmental Assessment for each road and bridge subproject				
	following the approved ESMF during the Detailed Design phase;				
Construction	• Implement the ESMP as contained in the bid documents, or propose a				
Contractors	modified version based on the results of the contract negotiations;				
	• Submit periodic progress report on the implementation of its approved				
	ESMP.				
	• Submit itself to periodic and special inspections by the Project Owner,				
	Independent Monitoring Agent, and other oversight government agencies,				
	and comply with instructions/ corrective measures for identified deficiencies				
	in its ESMP implementation.				
	• Appoints Local Government Desk Officers who visit communities and the				
Local	project Implementers on a regular basis to facilitate stakeholder participation				
Government	and compliance with local environmental laws				
	• Support the PIU by participating in environmental and social screening and				
	scoping process of sub-projects and public review of ESMPs				
	• Assists the Project implement effective response to relevant environmental				
NGOs and	and social issues				
CSOs	• Conducts scientific researches alongside government groups to devise				
	sustainable environmental strategies and rehabilitation techniques				
	• Provides wide support helpful in management planning,				
	institutional/governance issues and other livelihood related matter, Project				
	impacts mitigation and monitoring				

To expand upon the role of the Environmental and Social Safeguards Specialist as detailed in Table 7, this Specialist is to ensure the effective management of environmental and social concerns throughout the Project cycle from the planning, detailed design, implementation, and monitoring and evaluation. Thus, a key function of Safeguards Specialist is to ensure compliance with the World Bank's environmental and social safeguards policies as contained in this ESMF.

During the implementation of the Project, the Safeguards Specialist, will work closely with relevant organizations. This is intended to have a coordinated response on operational issues that affects the environmental and social aspects of the sub-projects. The roles and responsibilities of the Safeguards Specialist are to:

- Review all ESMPs reports/documents prepared by environmental and social consultants to ensure compliance to the World Bank Safeguard policies;
- Ensure that the Project design, specifications and budget adequately reflect the recommendations of the ESMPs;
- Co-ordinate application, follow up processing and obtain requisite clearances/approvals from the WB for the ESMPs;
- Prepare regular monthly/quarterly/semi-annual progress reports with statutory requirements;
- Develop, organise and deliver appropriate environment and social safeguards related training courses for the PIU staff, the contractors, local government/community representatives and others involved in the Project implementation;
- Review and approve the Contractor's ESMP using the ESMF as guide;
- Liaise with the Contractors on implementation of the ESMPs;

- Liaise with various Government agencies on environmental, resettlement and other regulatory matters;
- Continuously interact with relevant NGOs and community groups;
- Establish dialogue with the affected communities and ensure that the environmental and social concerns and suggestions are incorporated and implemented in the Project;
- Review the performance of the Project in terms of environmental and social safeguards through an assessment of the periodic internal monthly and quarterly environmental and social monitoring reports; provide summaries of same and initiate necessary follow-up actions; and

Provide support and assistance to the Municipality and the World Bank during Project Review Missions

8.3 CAPACITY BUILDING AND TRAINING

Through the public consultation meetings, the capacity assessment of implementing federal and state level MDAs as well as the PIU, was undertaken. The assessment result indicate that effective functioning of the MDAs is hindered by limited technical skills and resource constraints.

Thus, institutional barriers include:

- Limited knowledge of the relationship between World Bank Safeguards policies and the existing country environmental and social laws;
- Lack of enforcement of development regulations;
- Limited knowledge on EIAs and Environmental and Social Audits during construction/rehabilitation of drainage facilities;
- Limited knowledge on Strategic Environmental Assessment; and
- Limited monitoring of river water quality, river flow and lack of systematic hydrologic data collectioncapability.

In order to achieve the goal of the ESMF, there is a need for capacity building on environmental and social management at municipal level MDAs. It involves institutional development, not only within, but also among the different concerned organisations and other concerned sectors (public, private and community).

The competencies required to carry out the environmental and social management requirements outlined in this ESMF, and the corresponding capacity building activities needed are in the following areas:

- Environmental Impact Assessment process screening, scoping, impact identification and interpretation and analysis, mitigation measures and monitoring, gender mainstreaming, livelihood and income restoration, resettlement planning, and reviewing ESIA reports;
- Environmental Due Diligence types of due diligence, screening projects for liabilities, scoping due diligence investigations and reviewing due diligence reports; and
- Monitoring and Evaluation M&E requirements for environmental and social sustainability of projects and how to prepare M & E reports

Specific areas for effective institutional capacity needs are given in Table 8.2.

 Table 8.2: Training/Capacity Building Needs

Environment and Social Management Framework

TRAINING NEEDS	PARTICIPANTS	TRAINING	DURATION	WHEN	CONDUCTED BY	AGENCY	COSTS ¹¹
		METHOD	(days)			COORDINATING	(using assumptions)
Project Screening,	Municipality	Workshop	1	Prior to	External Specialists	PIU	3 days preparation,
Scoping Review of	Technical and			implementation			plus delivery, travel
EIA and its	Operational Staff						time, flight, hotel
integration into							other logistics,
designs							workshop (hire,
							materials, per
							diem) US\$7,000
Preparation and	Municipality	Workshop	1	Prior to	External Specialists	PIU	3 days preparation.
conduct of socio-	Technical and			implementation		-	plus delivery, travel
economic surveys	Operational Staff			mprementation			time flight hotel
and stakeholder	operational Starr						other logistics
consultation							workshop (hire
consultation							workshop (Inte,
							diam) US\$7.000
Project Management	DILI	Lastura & Dissussion	1	Drior to	External Specialists	DILI	6 days properation
including	110	and Workshop	4	implementation	External Specialists	110	o uays preparation, plus delivery travel
Management of		and workshop		mplementation			time flight hotel
Environmental Health							other logistics.
and Safety Impacts of							workshop (hire,
Construction (scope,							materials, per diem)
implementation, time,							14,000 USD
budget, costs,							
resource, quality,							
procurement,							
monitoring and							
evaluation)							
Monitoring and	PIU Safeguards Unit	Workshop	4	Prior to	External Specialist	PIU	6 days preparation,
Evaluation (a.				implementation			plus delivery, travel
Selection of							time, flight, hotel
performance							other logistics,
of monitoring: c							workshop (inte, materials, per diem)
evaluation of							14 000 USD
performance: d							17,000 0.50
report writing).							

8.4 GRIEVANCE REDRESS MECHANISM

The Grievance Redress Mechanism (GRM) is part of the broader process of stakeholder participation, that provides a stakeholder a means to have his/her concerns amicably resolve at the earliest possible time. The mechanism takes into consideration lessons learned in other development projects implemented in the country, as well as the existing traditional practices such as the "xeer" system which is the most cost-effective and most logical form of justice for the majority of Somalis. To help ensure that the process does not marginalize women and other vulnerable groups, representation for these groups (women and other vulnerable groups) will be required in the Grievance Redress Committee (GRC) tasked to resolve grievances/complaints. Other details on the GRM are provided in the Resettlement Policy Framework, , and a sample grievance registration form is included in Annex 9. The objectives of the grievance redress mechanism are:

- Provide an effective avenue*for aggrieved persons/entities to expressing their concerns and secure redress from issues/complaints caused by the Project; these grievances may arise from resettlement and compensation activities, or from impacts from construction activities.
- Promote a mutually constructive relationship among community members, project affected persons, government and the funding institution;
- Prevent and address community concerns;
- Assist larger processes that create positive social change; and
- Identify early and resolve issues that would lead to judicial proceedings.

*May need to consider separate mechanism for women and children (as a way to ensure their voices are heard)

8.4.1 Grievance Management Process

Grievance resolution requires localised mechanisms that take into account the specific issues, cultural context, local customs and tradition, and Project conditions and scale. Figure 8.1 provides a schematic diagram of the Grievance Redress process that could be followed:

- Receive, register and acknowledge complaint (see Annex 9 for a Grievance Registration Form Template);
- Screen and establish the basis of the grievance; Nuisance complaint are rejected but the reason for the rejection should be clearly explained to the complainant;
- GRC to hear and resolve the complaint;
- Implement the case resolution or the unsatisfied complainant can seek redress at a formal court of justice;
- Elevation of the case to a formal court if complainant is not satisfied with the GRC resolution
- Document the experience for future reference.

Figure 8.1: Grievance Redress Process Flow



Essentially, registration of complaints, acknowledgement, follow-ups, mediation and corrective actions is presented. This is further amplified in Table 8.3 which describes the steps in the grievance management process irrespective of the size and nature of the grievance. The grievance redress mechanism (GRM) does not replace or circumvent existing traditional mechanisms for dispute resolution in the communities.

8.4.2 Grievance Redress Committee

A functional GRC will be constituted by the PIU in conjunction with the local community to monitor and review the progress of implementation of the Project. The specific composition of these committees will vary upon location and context. But generally speaking, the GRC will be comprised of Project Affected Persons (PAPs), municipal government officials, local civil society leaders and representatives of women and youth groups, who will be formed to receive and handle any arising complaints.

The main functions of the Committee are:

- Inform the affected persons on the grievance redress mechanism;
- Verify grievances and their merits;
- Recommend to the PIU solutions to such grievances;
- Communicate the decisions to the claimants;
- Ensure that all notices, forms, and other documentation required by claimants are made available in local language understood by people; and
- Ensure documentation of all received complaints and the progress of remediation.
- Provide the Bank, PIU and other oversight agencies, through the internal and external monitors a listing of cases handled and their respective status.

u	- our rincipul steps of the orientianee frankgement rideess							
	STEPS	DESCRIPTION	TIMELINE*					
	1	Receipt of the grievance	½ day					
	2	Completion of the grievance form	½ day					
	3	Entry of the complaint into the grievance database	½ day					
	4	Preliminary assessment of grievance: internal	2days					
		evaluation of the severity of the complaint by a						
		Project staff knowledgeable of the process. The						

Table 8.3: Principal Steps of the Grievance Management Process

	findings to be indicated in the accomplished complaint form.	
5	 For legitimate cases, the Project staff to first meet the complainant and try to resolve the issue. The case is resolved, then recommendations will be made by the concerned Project staff on the case for implementation by the concerned project staff/office; For nuisance cases, these shall be rejected, but the Project staff will need to explain the nature of the rejection. 	5 days
6	 For legitimate concerned that cannot be resolved by the concerned Project staff, the complaint will be forwarded to the Grievance Redress Committee for resolution. Resolution by the GRC will be returned to the concerned offices for action. 	1-2weeks
7	If the complainant is not satisfied with the GRC's decision; he/she can elevate the case to the mediation for resolution. The decision of the committee will be returned to the Project office for action.	1-2weeks
8	 If the complainant is not satisfied with the decision of the Mediation Committee, then he/she can elevate the case to a formal court of justice for resolution. The court's decision is final. The case will be returned to the concerned project office for action. 	1-2 weeks
9	The documentation of the hearings will be made by the Project staff, and submit the same to BR RU copy furnished the Council.	2-3 weeks after registration

* If this time limit cannot be met, the PIU through the GRM advises the complainant in writing that they require additional time

8.4.3 Mediation Committee

The Independent Mediation Committee is a structure that is to be established by the PIU to independently and impartially resolve grievances through mediation and dispute resolution. Mediation by the Committee is only to take place in case the complainant is not satisfied with the initial resolution proposed by the GRC. The Committee uses mediation to resolve disputes or complaints submitted to it. It will be composed of elder/s or their representative from the dominant clan exercising control over the area, among others.

The Committee will be independent from the PIU but has access to any information that the PIU and or its implementation partners have, regarding the complaint. The determinations of the GRC are nonbinding on either party. The Committee meets as needed, depending on registered complaints and disputes, and its members receive a stipend from the PIU to cover costs of attending meetings.

If a solution that is acceptable to all parties emerges out of the meeting with the Committee, the grievance may be considered resolved and closed out; all parties are then notified. If no acceptable solution is agreed upon, either party has the option of taking legal action. The composition of the Committee shall be established based on the specific Project location and will include three people of high reputation as impartial mediators in the region such as elders, retired judges and so on.

8.5 BUDGETS FOR THE ESMF

To effectively implement the environmental and social management measures suggested as part of the ESMF, necessary budgetary need to be provided. An indicative budget had been provided in Table 8.4

that will cover safeguards related expenses such as capacity-building programs, coordination and public consultation meetings; planning workshops, monitoring work, environmental consultancy services. This estimated budget does not include the cost for mitigation and enhancement measures, which will be integrated into the construction cost. Likewise, all administrative costs for the operation of the PIU Safeguard unit are including in the overall Project cost.

ESMF REQUIREMENTS	BUDGET BASIS AND ASSUMPTIONS	TOTAL COST PER ANNUM (USD)
Capacity Building for PIU	Training programmes held in-country	$42,000^{12}$
Personnel and Municipality	(all in one year)	
Meetings, Workshops and	For 30 persons/year x two workshops	4000
Stakeholder Engagement		
Environmental Screening of	No additional budget	No additional budget
transactions		
Field visits to Project	Field visits estimated for two PIU personnel	Already in PIU budget
locations	per year (to cover, transport, and daily allowances)	
Meetings, Workshops and	No additional budget	Based on actual expenses
Stakeholder Engagement		_
ESIA Scoping Workshops	One-day ESIA Scoping workshop for	Budget as part of ESIA and
	bridges and quarries	ESMP preparation (8000)
Typical ESIA Report for	Assume average cost of each ESIA, 25 days	Budget as part of ESIA and
sub-projects		ESMP preparation (50 000)
Typical ESMP for sub-	Assume average cost of each ESMP, 10 days	Budget as part of ESIA and
project		ESMP preparation (10 000)
Engagement of	Allow for five specialists, 10 days each plus	Budget as part of ESIA and
Environmental and Social	expense	ESMP preparation (75 000)
Specialists		
Monitoring Compliance with	Assume quarterly monitoring activities over	Budget as part of ESIA and
ESMP during pre-operations	five days, each quarter, per year (two	ESMP preparation (30 000)
activities	persons plus logistics, per diem etc)	
Monitoring Compliance with	Assume quarterly monitoring activities over	Budget as part of ESIA and
ESMP and during operations	five days, each quarter, per year (one person	ESMP preparation (20 000)
	plus logistics, per diem etc)	4 4 9 9 9
	TOTAL Estimated Budget	46,000
	Contingency (15%)	6,900
	Grand Total	52,900

 Table 8.4: Estimated Annual Budget to Implement ESMF

8.6 UPDATE AND REVISION OF ESMF

The ESMF will be used for screening of sub-projects, a guide for the preparation, review and approval of environmental assessment instruments (ESIA and ESMP), and a reference in the implementation of the sub-projects and its ESMP. Since there may be new developments, guidelines or national legislations issued after its (ESMP) approval and posting at the WB website, the ESMP may need to undergo updating from time to time.

8.7 DISCLOSURE OF SAFEGUARD INSTRUMENTS

The ESMF has been prepared in consultation with the relevant stakeholders. Copies of this ESMF and other safeguard instruments (ESIA/ESMP) that would be prepared for the sub-projects should be disclosed in compliance with relevant country regulations and the World Bank operational policy. The

¹²Only \$42,000 is necessary for indirect Project ESMF implementation. Capacity building cost for Municipal government offices and non-Project entities should not be covered by the Project, unless there has been previous agreements to cover such cost.

ESMF will be disseminated in-country at the Project sites and translated as much as possible into main local language (s). It will also be disclosed in two daily newspapers for 21 days, or as required by country laws, while the World Bank will post the approved document at its Info Shop.

Environment and Social Management Framework

9 **BIBLIOGRAPHY**

YEAR	AUTHOR/SOURCE	TITLE
	FEDERAL GOVERNMENT	
2015	(FAO)	National Biodiversity Strategy and Action Plan
	Garowa Local Government	
2003	Ministry of Planning and Statistics	Puntland Facts and Figures
2014	Ministry of Environment. Wildlife and Tourism	Puntland Environmental Policy
2016		Environmental Management Act
2016		Puntland Climate Change and Drought Management Strategy (2017 – 2019)
2016		EIA Act and Regulation
(2017)		Rangeland Management Policy, 2 nd Edition (2016-2025) (tabled at Cabinet for approval)
(2017)		Strategic Plan 2016-2020 (awaiting approval)
(2017)		Puntland Waste Management Policy (in draft)
2016		Primary and Secondary Roads in Garowe (priorities)
2016		Main Road routing through Garowe
	Development Partners	
2015	African Development Bank	Somalia, Population Statistics
2006	EU, Somalia	Country Environmental Profile for Somalia
2013	EU, Somalia	A Gender Profile of Somalia
2014	EU, Somalia	EU boosts the Somali fishing industry
2001	FAO, Rome	State of the World's Forests
2008	FAO, Somalia	Rapid Response Rehabilitation of Rural Livelihoods Project, ESMF
2015	Norwegian Refugee Council	Displacement and Housing, Land and Property Disputes in Puntland
2015	Norwegian Refugee Council	Adopting and implementing Somaliland's draft policy framework on internal displacement
2007	SWALIM	Water Resources of Somalia
2009	SWALIM	Land Resources Assessment of Somalia
2016	SWALIM	Somalia Flood Watch
2016	SWALIM	Gu 2016 Rainfall Performance
2012	Food Security and Nutrition Analysis Unit – Somalia	Garowe Urban Baseline Report
1993	IUCN	Environmental Synopsis of Somalia.
2004	UNDP	Human Development Report, Somalia
2004	UNDP	Socio-Economic Assessment in Puntland
2016	UNOCHA	Humanitarian Response Plan (January – December 2016)

YEAR	AUTHOR/SOURCE	TITLE		
2015	UNOPS	Somalia Urban Investment Planning Project Terms of Reference for Civil Works in Mogadishu, Hargeisa, and Garowe: Urban Primary and Community Roads and Solid and Liquid Waste Management		
2009	USAID	Environmental Guidelines for Small-Scale Activities in Africa		
2006	World Bank	Somalia from Resilience towards Recovery and Development. A Country Economic Memorandum for Somalia. Report No. 343546-SO - Poverty Reduction and Economic Management		
2007	World Bank	Regional Communications Infrastructure Program, Resettlement Policy Framework		
2008	World Bank	ESMF Guidelines for World Bank projects with multiple small-scale sub-projects, Africa Region		
2014	World Bank	SUIPP: Scope of work for the development of an ESMF for anticipated investment lending activities		
2014	World Health Organisation	Somalia, Population Statistics		
2014	World Bank	Urban Investment Planning Project, Project Information Document, Appraisal Stage		
2015	World Bank	ESMF: Somali Core Economic Institutions and Opportunities Program (SCORE)		
2015	World Bank	Somali Water for Agro-pastoralist Livelihoods Pilot Project Environmental and Social Management Framework		
	IPE Project Documents			
2013	World Bank: Private Sector Development Re-Engagement Phase II, Consulting Services for Solid Waste Management, Somaliland			
		Evaluation of Private Sector Participation Experiences and Improvements		
		Legal Framework for Public-Private Partnership Contracts		
		Progress of Capacity Building Component		
		Project Completion Report		
	Consulting Services for Engineering Feasibility Stu	dies, Preliminary Designs for Urban Roads, Solid and Liquid Waste Management, Mogadishu, Garowe and Hargeisa		
2015		Technical Proposal		
2016		Feasibility Report for Urban Roads in Garowe		
	Roads and Bridges	Garowe Roads (existing)		
		List of drawings for the preliminary designs		
		Roads Estimates, Somalia		
		List of activities associated with construction of roads		
		Potential Environmental Impacts		
	Environmental			
2016		Some notes: Environmental policy and legislation, Somalia, Somaliland and Puntland		
2016		Animal Species within Project Locations		

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ANNEX 1: ESMF TEMPLATE FOR ROADS PROJECTS

Construction of a road can result in a lasting change to the environment. Therefore, it is essential to identify and manage road development in a pro-active and responsible manner. This means taking environmental issues into consideration during planning, design, construction and operation of the road project thereby reducing negative environmental impacts while enhancing positive impacts and socio-economic benefits.

OP 4.01, Annex A defines an Environmental Management Plan (EMP) as "An instrument that details (a) the measures to be taken during the implementation and operation of a project to eliminate or offset adverse environmental impacts, or to reduce them to acceptable levels; and (b) the actions needed to implement these measures." Bank Procedure (BP) 4.01, Annex C goes further to clarify that "A project's EMP consists of the set of mitigation, monitoring and institutional measures to be taken during the implementation and operation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. The plan [EMP] also includes actions needed to implement these measures.

Environmental Impacts and Mitigations of Road Projects

Road construction normally include rehabilitation of existing roads which may involve widening of the road, replacement and /or strengthening of road pavement, drainage and side slope improvements, culvert and or bridge installation, relocation of services, construction of sidewalks and bus stops, installation of roadside furniture, etc. Sometimes it may also include realignment of a <u>short</u> stretch of the road. Construction of a new road, in a "green field" environment, is not included in road rehabilitation as it would draw a Category 'A' classification.

Construction activities and the environmental impacts associated with a road projects are summarized below. Most of these impacts result from various materials needed for construction / rehabilitation of roads and associated infrastructures and maintenance of equipment. The impacts may result from acquisition, transportation, storage and handling of such materials either from borrow pits, quarries, concrete mix plants, asphalt plants, etc.

- Site clearance for right-of-way and establishing Contractor's work camps, staging areas, etc. This may involve loss of vegetation including trees, loss of top soil, generation of waste material and generation of dust. The impacts can be minimized or mitigated by minimizing the areas to be cleared, salvaging crops, chipping the vegetation for use as mulch, salvaging the top soil for future use, applying dust control measures, etc.
- Sourcing of construction materials: This may activity often involves creation of borrow pits for earthworks materials; transport, stockpiling and use of such materials; disposal of unsuitable materials, recycle, reuse or disposal of pavement materials, etc. However for the Garowe subprojects, no borrow pits are required and most materials, including Otta seal which will be used for the road surface area available through local supplier. Otta seal is an asphalt surface treatment constructed by placing and compacting a graded aggregate on top of a thick application of relatively soft bituminous binding agent.
- Asphalt plants, stone crushers, cement mix plants used in the manufacture of asphalt concrete or cement concrete could involve a stone crusher as part of the asphalt or concrete mix plants. For large operations, the activities may involve crushing of stones using large and noisy equipment, conveyors to transport aggregates and sand, oil fired aggregate heaters and dryers and batch mixers or it could simply involve the heating of bitumen and hand mixing. Potential

environmental problems involve spills or improper handling of bitumen, surface water contamination, noise from crushers and air pollution particularly dust and smell. To a large extent all these impacts are controllable and manageable by using dust collectors and smell scrubbers.

- Access roads to borrow and disposal areas, construction / labour camps and other ancillary facilities may be required to facilitate access to these sites. Apart from direct impacts (dust, drainage, safety, etc.) resulting from the construction of the road, the alignment of the road could result in increased exploitation of the natural resources in the area. In some cases, the impacts can be remedied by the use of existing roads, upgraded where necessary, and avoiding protected and or sensitive areas.
- **Operation and Maintenance Phase:** While the rehabilitation of the road would lead to improved traffic flow and communications, it may also result in increased air pollution, traffic noise, and accidents. Public awareness campaign to promote safety, enforce traffic laws, upkeep / increase roadside plantation, and where appropriate construct noise barriers near sensitive locations should be undertaken.

Construction Monitoring

Environmental monitoring during project implementation provides information about key environmental aspects of the project, particularly the environmental impacts of the project and the effectiveness of mitigation measures (BP 4.01 Annex C). This can only be ascertained by monitoring key parameters of the project to ensure that the impacts are as predicted and that the mitigation measures are effective. If they are not, then the monitoring would alert the Contractors and the Client of the need to take additional actions to remedy the situation.

In compliance monitoring, it is generally not necessary or required to monitor all project impacts but only those which are pertinent to the project. This will ensure that mitigation measures are properly implemented. For example, dust and noise are major impacts of construction projects involving large scale earth moving operation, especially near schools and hospitals. Generally, monitoring should be carried out when the effects can be measured, mitigated, assist in decision making, are important to the public and are cost effective.

Dust and noise pollution is normally site and time specific. In case of dust, visual assessment can be used to trigger watering of the site generating dust. Noise can be measured by a handheld noise meter. Discharge of sediments can be controlled by installing sediment traps. Suspended solids monitoring may be appropriate where the discharge is into a stream leading to a sensitive location. This is called impact monitoring and may be required to assess long-term impacts but requires expertise and long-term funding.

The EMP should include construction and operational monitoring plans specially where air quality or surface water quality is impacted from operational discharges to the environment.

Capacity Development and Training

To support timely and effective implementation of environmental project components and mitigation measures, BP 4.01 Annex 'C' recommends that "*EMPs cover one or more of the following additional topics: (a) technical assistance programs, (b) procurement of equipment and supplies, and (c) organizational changes.*" While the procurement of equipment and supplies (lab equipment, noise monitoring meters, etc.) is straight forward and mostly

welcomed, technical assistance (TA) programs and organizational changes should be approached with caution and initiated only after comprehensive discussions with the Government. Donor consultations should also be undertaken to avoid duplication and where appropriate develop joint or supplementary assistance. At times the Clients are reluctant to spend TA money when that money is part of the World Bank loan.

The EMP should include a detailed table listing the equipment to be purchased, the cost of the equipment, and the budget for training the operators. Where TA is agreed on the EMP should provide detailed information on the TA, the scope of the TA an its outputs, the implementation schedule and the budget.

Implementation Schedule and Cost Estimates

BP 4.01 Annex 'C' states that "For all three aspects (mitigation, monitoring and capacity development) the EMP should provide (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurring cost estimate and sources of funds for implementing the EMP. This figure should also be integrated into total project cost tables." Depending on the project design cycle, detailed implementation schedule may not be available in which case the EMP should include as detailed an implementation schedule as available. Budget to implement the EMP should be estimated and included in the report.

Some aspects of the EMP (such as top soil stripping and stockpiling, regular watering to control dust, etc.) will be part of good engineering design and do not require supplementary budget. Others such as road side plantation, converting borrow areas into water storage ponds, etc. will require additional budget, which should be estimated and included in the cost of implementing the EMP.

Integration of EMP with Projects

According to BP 4.01 Annex 'C', the Bank's decision to support the project is "predicated in part on the expectation that the EMP will be executed effectively. Consequently, the Bank expects the plan [EMP] to be specific in its description of the individual mitigation and monitoring measures and its assignment of institutional responsibilities, and it must be integrated into the project's overall planning, design, budget and implementation. Such implementation is achieved by establishing the EMP within the Project so that the plan will receive funding and supervision along with the other components." True implementation can only be achieved if the EMP is part of the bid documents and even then, some contractors, to remain competitive, may not adequately reflect the real cost of environmental mitigation in their bids. A better strategy is to include the mitigation measures as a "line item" in the Bill of Quantities. Thus there would be an identified extra payment in the contract to ensure that the work is carried out by the Contractor as specified.

Environmental Issues and	Mitigation Measures	Remarks			
Objectives					
Design / Pre Construction Phase					
 Protection of Sensitive Natural Areas Minimize negative impacts on sensitive environment Road Safety and Environmentally Sound Design To avoid accidents during and after construction of the road To provide sound drainage 	 Identify potential environmentally sensitive areas Avoid or locate optional construction sites/activities away from sensitive areas. Ensure construction personnel are aware of locations of sensitive areas Include temporary fences / barriers to restrict construction activities from encroaching sensitive area Include footpaths and pull-off bays in villages and near markets, schools, and other community facilities in design Include occupational health and safety requirements for the construction activities in the contract documents. Provide cross walks, speed bumps near schools, hospitals, and markets in the design Ensure sufficient visibility along the road section and provide light and warning signs in design Provide cross drains at causeways, bridges, culverts, etc. 	 Inspect the alignment for unique features and environmentally sensitive areas which require design accommodation or protection Develop replantation program using local flora and in consultation with the local communities Identify natural drainage pattern and soil percolation rates to design for rapid disposal of road runoff Identify and include traffic calming options in design for roads passing through villages, near market places, schools, hospitals, gathering places, etc. 			
Cultural Heritage • To avoid damage to cultural heritage sites i.e. ceremonial sites and burial grounds	• When a cultural heritage site is identified during the construction, Contractor is to cease all work immediately and notify the relevant cultural institute	 Carry out public / community consultations prior to the start of construction and identify potential sites Include a chance find protocol in the contract documents 			
Onexploded Ordinance (UXO)	 Survey of mined areas in accordance with the United Nations International Standard for Level 2 Surveys. Nomination of a qualified EOD expert to declare sites safe, and formal recognized training for other staff involved in the work. Implementation of approved clearance method. 	 Applies to all sites where military combat is known or suspected to have taken place. All measures to be carried out prior to construction No construction to proceed without confirmation in writing 			

ANNEX 2: TEMPLATE FOR IMPACT AND MITIGATION MATRIX FOR ROAD PROJECTS

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Environmental Issues and Objectives	Mitigation Measures	Remarks
	 A 100% sweep by mine/metal detectors and a deep magnetometer search following clearance work Use of approved, nominated search instruments. Provision for medical treatment and emergency evacuation. Relocation of unexploded ordnance to an approved location under secure conditions Clear and accurate marking and recording of all cleared areas to facilitate subsequent identification during construction. 	 from EOD expert that sites are safe for construction activities Include UXO procedure in all contract documents

Environmental	Mitigation Measures	Remarks
Issues and		
Objectives		
Construction Phas	e	
 Soil erosion, sediment and storm runoff control Minimize the amount of sediment lost from the site Minimize impact of storm water containing sediment and contaminated runoff water on streams and coastal areas 	 Limit ground disturbance to areas of a workable size Schedule construction to minimize areas of soil disturbance during wet seasons Keep vegetation clearing to a minimum Where vegetation was removed, re-vegetate all areas immediately after construction activity finishes and where the area is not to be paved after final land contouring Reduce the time excavated drainage channels remain unsupported Place geotextile silt traps at drainage ditches and materials stockpiles Contain or isolate construction areas from other surface runoff. Clean and rehabilitate the area when construction is complete Pass storm water run-off from construction areas through geotextile silt traps before discharge into culverts or drainage of sediment bearing contaminated water to streams and ocean 	• Apply to all activities such as site clearance, borrow areas, quarries, construction camps, etc. where clearing is required
 Management of Stockpiles and Spoil-heaps To minimize dust and runoff 	 Identify dumping / stockpile locations with local landowners Ensure that stockpile or spoil-heap locations do not block surface runoff or natural drainage Install proper drainage to isolate the stockpile / dumping sites 	• Applies to all dumping areas and materials storage areas such as stone crushers, concrete batch plants, asphalt

Environmental	Mitigation Measures	Remarks
Issues and		
Objectives	 Minimize erosion and sediment runoff by covering or vegetating spoil-heaps or stockpiles especially if prolonged exposure is envisaged, Keep maximum stockpile height at 3m to prevent windborne deposition Place geotextile silt traps around materials stockpiles Ensure that no stockpiles are able to release material into the sea or streams even under heavy rain or windy conditions Stockpiles within 20m of water should be fitted with silt traps and covered to prevent windborne deposition into the waters. Ensure that silt from silt traps do not drain into water 	plants, topsoil storage areas, etc.
Material Management • Minimize impacts of materials delivery and waste disposal	 Develop and implement materials delivery and waste disposal handling plan, to avoid / minimize materials delivery during peak traffic periods Implement safety measures for vehicle operation and to prevent loss of load from trucks Implement methods to reduce dust emission from the loads Place silt fences around materials stockpiles All imported material to be free of organic matter, obtained from certified clean sources and/or fumigated prior to arrival in country For imported materials, ensure adequate docking and storage facilities at point of transfer from barge Use water sprays or covered chutes to reduce dust emission during loading and unloading of materials from barges; Maintain materials processing plant in good working condition so as to reduce emission from the plant; 	• Applies to all materials extraction, storage and management areas
 Extraction of Materials To ensure that extraction of materials does not cause damage to local environment 	 Balance cut and fill and explore availability of suitable materials from other ongoing projects Obtain borrow materials from designated or approved borrow areas Restore and re vegetate borrow areas to promote natural drainage Place silt fences around materials stockpiles Ensure haul trucks are not over loaded and are covered Ensure that materials are not stored below the high water mark If possible, obtain sand, aggregates, gravel and stones from licensed operating quarry 	 New quarry site to be confirmed by geotechnical investigations Locate quarry away from natural / sensitive habitats Ensure minimum groundwater impact

Environmental Issues and	Mitigation Measures	Remarks
Objectives	 Warn and clear people from surrounding areas before blasting After completion of construction, restore quarry site as per quarry rehabilitation plan 	• Prepare quarry rehabilitation plan and secure quarry operating licence
Storage and handling of fuel and lubricants • To minimize hazards relating to fuel, oil, paints etc.	 Store fuel oil and bituminous products in a dedicated, contained location away from drainage ditches. Fuel in excess of 1,000 liters stored on site, should be stored in sealed tanks on a concrete base that is bunded to hold 110% of the tank capacity. Install oil and water separators in all workshops Only nominated authorized personnel to handles fuel Develop procedures for cleaning up accidental spills. Report any major spill immediately to Supervisor Collect and dispose of all waste oil, oil and fuel filters at an approved landfill. 	• Applies to all workshops, depots, storage sites work sites, construction plant sites and vehicles parking areas
Offsite and Waste Management • To prevent / minimize contamination from solid wastes, site drainage and sewage	 Contain all inert solid waste within construction sites and remove to landfill Remove all hazardous waste, including bitumen containers Prepare procedures for managing spills to ensure rapid containment, immediate site cleaning and appropriate disposal Crush, and remove all nontoxic and nonhazardous inorganic solid waste to landfill Develop a plan for handover, sale or removal of all plant, vehicles and machinery at the end of the contract, ensuring that no unserviceable items of equipment are left behind Install onsite toilets with appropriate management arrangements for effluent and collection of sludge to prevent any release of contamination into the soil. Liaise with Local Authority for appropriate collection and disposal of sludge Compost or use as animal feed all green or organic wastes Reuse treated onsite drainage effluent for dust control, equipment washing, etc. 	 Applies to all off-sites storage and disposal sites Consider reuse of effluent from concrete batching plant after treatment
Air Quality / Dust • To minimize and control	• Asphalt plant generation (smoke, dust, smell, etc.) to meet regulatory requirements for temporary asphalt plant	• Where possible, use existing, operating,

Environmental	Mitigation Measures	Remarks
Issues and		
dust generation and emissions from asphalt plant	 Minimize exposed soil / material stockpile surfaces to wind Install wind breaks or fences around material stockpiles, concrete batching and asphalt plants Spray water on exposed soil surfaces and access roads Asphalt plant should be equipped with either baghouse or wet scrubber particulate removing system 	licensed asphalt plant New asphalt batching plant should be located 300- 500m downwind of any settlements or inhabited areas and 150m away from any water bodies, streams or rivers
Noise • To ensure that nuisance from noise minimized	 Use modern and well maintained equipment with mufflers where appropriate Schedule noisy construction activities during normal working hours Use noise barriers / screens or mounds to shield sensitive locations Advise local residents and authorities of any unusual or unavoidable noise activities 	 Establish clear construction work policies to ensure that sensitive receptors such as schools, hospitals, religious establishment are least inconvenienced Avoid noisy work from 6pm to 6am and during weekends and public holidays
 Health & Safety To ensure maximum safety of construction personnel and local residents 	 Ensure all occupational health and safety requirements are in place on construction sites and in work camps Install lights and cautionary signs in hazardous areas Establish footpaths and pull-off bays along roads through villages, near markets, schools and other community facilities Limit construction activities from 0700 hr to 1900 hr to limit exposure to dust, noise etc. Enhance safety and inspection procedures Ensure use of Personal Protection Equipment (PPE) 	• Applies to all construction sites
Health and Safety • Awareness for	 Prepare a site safety plan specifying responsibilities and authorities within the Contractor's staff for: > adherence to safety and health requirements, > adherence to occupational health and safety requirements, 	

Environmental	Mitigation Measures	Remarks
Issues and		
Objectives		
construction	use of personal protective equipment,	
workers:	Ingitting and warning signs at nazardous areas, softing rules for operation of vehicles and	
	setting rules for operation of vehicles and aquipment by authorized personnal	
	setting procedures for safe handling of toxic and	
	hazardous materials	
	 arrangements for first aid and emergency 	
	procedures.	
	> posting notices about medical assistance and	
	location of emergency equipment,	
	setting schedules for regular checking of	
	adherence to the plan and	
	training staff to familiarize them with the plan,	
	their obligations to implement it, and main areas	
	of risk to workers and others	
	• Provide for the management and control of traffic	
	during the works, arrangement for safe delivery of	
	and plant (both during and after working to venicles	
	Education on basic bygione practices to minimize	
	Education on basic hygiene practices to minimize spread of tropical diseases	
	 Increase workers' HIV/AIDS and STD awareness 	
	including information on methods of transmission	
	and protection measures	
	 Prohibit usage of drugs and alcohol on construction 	
	sites	
Disruption of	• Maintain high standards of site supervision and	• Applies to all
Utilities	vehicle and plant operation to reduce risks of	construction
	damage to water, power and telecommunication	sites
	lines	
	• Prepare procedures for rapid notification to the	
	responsible Authority	
	• Provide assistance with re-instatement, in the event	
<u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>	of any disruption	A 1' / 11
Sile	• Excavate any contaminated soil from fuel depots /	• Applies to all disturbed erose
• To minimize	 Bake or loosen all compacted ground surfaces 	and
ongoing	 Rake of loosen an compacted ground surfaces Ensure that waste and surplus materials are removed 	construction
impacts after	from site	sites
construction	 Contour sites to conform to the surrounding 	
is completed:	landscape and natural drainage.	
	• Apply topsoil and re vegetate the site using local	
	flora	
Operation Phase		
Safety &	• Implement traffic calming procedures at selected	• Applies to the
Maintenance	places such as schools, markets, etc.	entire road
Practices	Promote use of off-road stops	
• To enhance		
safety and		

Environmental	Mitigation Measures	Remarks
Issues and		
Objectives		
maintenance practices	 Enhance improvements in road signage and pavement markings. Analyse road accident black spots and implement remedies Conduct regular monitoring and inventory of risks for erosion and drainage problems Conduct routine maintenance like grading, grass cutting, drain clearing, pothole patching, and shoulder repairs, etc. 	

ANNEX 3: ENVIRONMENTAL MANAGEMENT CONTRACTOR CONDITIONS

In addition to these general conditions, the Contractor shall comply with any specific Environmental and Social Management Plan (ESMP) for the works that s/he is responsible for. The Contractor shall inform her/himself about such an ESMP, and prepare her/his work strategy and plan to fully take into account relevant provisions of that ESMP. If the Contractor fails to implement the approved ESMP after written instruction by the Supervising Engineer (SE) to fulfil her/his obligation within the requested time, the Client reserves the right to arrange through the SE for execution of the missing action by a third party, to account of the Contractor.

Notwithstanding the Contractor's obligation under the above clause, the Contractor shall implement all measures necessary to avoid undesirable adverse environmental and social impacts wherever possible, restore work sites to acceptable standards, and abide by any environmental and/or social performance requirements specified in the ESMP.

In general, these measures shall include but not be limited to:

- Minimize the effect of dust on the surrounding environment resulting from earth mixing sites, asphalt mixing sites, dispersing coal ashes, vibrating equipment, temporary access infrastructure such as roads, etc. to ensure safety, health and the protection of workers and communities living in the vicinity dust producing activities;
- Ensure that noise levels emanating from machinery, vehicles and noisy construction activities (e.g. excavation, blasting) are kept at a minimum for the safety, health and protection of workers within the vicinity of high noise levels and nearby communities;
- Ensure that existing water flow regimes in rivers, streams and other natural or irrigation channels are maintained and/or re-established where they are disrupted due to works being carried out;
- Prevent bitumen, oils, lubricants and waste water used or produced during the execution of works from entering into rivers, streams, irrigation channels and other natural water bodies/reservoirs, and also ensure that stagnant water in uncovered borrow pits is treated in the best way to avoid creating possible breeding grounds for mosquitoes or other disease vectors;
- Prevent and minimise the impacts of quarrying, earth borrowing, piling and building of temporary construction camps and access infrastructure such as roads on the biophysical environment including protected areas and arable lands; local communities and their settlements. In as much as possible restore/rehabilitate all sites to acceptable standards;
- Upon discovery of ancient heritage, relics or anything that might be, or believed to be, of archaeological or historical importance during the execution of works, immediately report such findings to the SE so that the appropriate authorities may be expeditiously contacted for fulfilment of the measures aimed at protecting such historical or archaeological resources;
- Discourage construction workers from engaging in the exploitation of natural resources such as hunting, fishing, collection of forest products or any other activity that might have a negative impact on the social and economic welfare of the local communities;
- Implement soil erosion control measures in order to avoid surface run off and prevents siltation, etc.;
- Ensure that garbage, sanitation and drinking water facilities are provided in construction workers camps;
- Ensure that, in as much as possible, local materials are used to avoid importing foreign material and long distance transportation; and
- Ensure public safety, and meet traffic safety requirements for the operation of work to avoid accidents.

The Contractor shall indicate the period within which s/he shall maintain status on site after completion of civil works to ensure that significant adverse impacts arising from such works have been appropriately addressed.
The Contractor shall adhere to the proposed activity implementation schedule and the monitoring plan / strategy to ensure effective feedback of monitoring information to project management so that impact management can be implemented properly, and if necessary, adapt to changing and unforeseen conditions.

Besides the regular inspection of the sites by the SE for adherence to the contract conditions and specifications, the Client may appoint an Inspector to oversee the compliance with these environmental and social conditions and any proposed mitigation measures. State environmental authorities may carry out similar inspection duties. In all cases, as directed by the SE, the Contractor shall comply with directives from such inspectors to implement measures required to ensure the adequacy rehabilitation measures carried out on the bio-physical environment and compensation for socio-economic disruption resulting from implementation of any works.

Worksite/Campsite Waste Management

All vessels (drums, containers, bags, etc.) containing oil/fuel/surfacing materials and other hazardous chemicals shall be bundled in order to contain spillage. All waste containers, litter and any other waste generated during the construction shall be collected and disposed of at designated disposal sites in line with applicable government waste management regulations.

All drainage and effluent from storage areas, workshops and camp sites shall be captured and treated before being discharged into the drainage system in line with applicable government water pollution control regulations.

Used oil from maintenance shall be collected and disposed of appropriately at designated sites or be reused or sold for re-use locally.

Entry of runoff to the site shall be restricted by constructing diversion channels or holding structures such as banks, drains, dams, etc. to reduce the potential of soil erosion and water pollution. Construction waste shall not be left in stockpiles along the infrastructure such as road, but removed and reused or disposed of on a daily basis.

If disposal sites for clean spoil are necessary, they shall be located in areas, approved by the SE, of low land use value and where they will not result in material being easily washed into drainage channels. Whenever possible, spoil materials should be placed in low-lying areas and should be compacted and planted with species indigenous to the locality.

Material Excavation and Deposit

The Contractor shall obtain appropriate licences/permits from relevant authorities to operate quarries or borrow areas. The location of quarries and borrow areas shall be subject to approval by relevant local and national authorities, including traditional authorities if the land on which the quarry or borrow areas fall on traditional land.

New extraction sites:

- Shall not be located in the vicinity of settlement areas, cultural sites, wetlands or any other valued ecosystem component, or on high or steep ground or in areas of high scenic value, and shall not be located less than 1 km from such areas;
- Shall not be located adjacent to stream channels wherever possible to avoid siltation of river channels. Where they are located near water sources, borrow pits and perimeter drains shall surround quarry sites;
- Shall not be located in archaeological areas. Excavations in the vicinity of such areas shall proceed with great care and shall be done in the presence of government authorities having a mandate for their protection;

- Shall not be located in forest reserves. However, where there are no other alternatives, permission shall be obtained from the appropriate authorities and an environmental impact study shall be conducted;
- Shall be easily rehabilitated. Areas with minimal vegetation cover such as flat and bare ground, or areas covered with grass only or covered with shrubs less than 1.5 m in height, are preferred; and
- Shall have clearly demarcated and marked boundaries to minimise vegetation clearing.

Vegetation clearing shall be restricted to the area required for safe operation of construction work and shall not be done more than two months in advance of operations. Stockpile areas shall be located in areas where trees can act as buffers to prevent dust pollution. Perimeter drains shall be built around stockpile areas. Sediment and other pollutant traps shall be located at drainage exits from workings.

The Contractor shall deposit any excess material in accordance with the principles of the general conditions, and any applicable ESMP, in areas approved by local authorities and/or the Supervisory Engineer (SE). Areas for depositing hazardous materials such as contaminated liquid and solid materials shall be approved by the SE and appropriate local and/or national authorities before the commencement of work. Use of existing, approved sites shall be preferred over the establishment of new sites.

Rehabilitation and Soil Erosion Prevention

As far as possible, the Contractor shall rehabilitate the site progressively so that the rate of rehabilitation is similar to the rate of construction. Always remove and retain topsoil for subsequent rehabilitation. Soils shall not be stripped when they are wet as this can lead to soil compaction and loss of structure.

Topsoil shall not be stored in large heaps. Low mounds of no more than 1 to 2 m high are recommended. Re-vegetate stockpiles to protect the soil from erosion, discourage weeds and maintain an active population of beneficial soil microbes.

Locate stockpiles where they will not be disturbed by future construction activities. To the extent practicable, reinstate natural drainage patterns where they have been altered or impaired.

Remove toxic materials and dispose of them in designated sites. Backfill excavated areas with soils or overburden that is free of foreign material that could pollute groundwater and soil.

Identify potentially toxic overburden and screen with suitable material to prevent mobilisation of toxins. Ensure reshaped land is formed so as to be inherently stable, adequately drained and suitable for the desired long-term land use, and allow natural regeneration of vegetation.

Minimize the long-term visual impact by creating landforms that are compatible with the adjacent landscape. Minimize erosion by wind and water both during and after the process of reinstatement.

Compacted surfaces shall be deep ripped to relieve compaction unless subsurface conditions dictate otherwise. Revegetate with plant species that will control erosion, provide vegetative diversity and, through succession, contribute to a resilient ecosystem. The choice of plant species for rehabilitation shall be done in consultation with local research institutions, forest department and the local people.

Water Resources Management

The Contractor shall at all costs avoid conflicting with water demands of local communities. Abstraction of both surface and underground water shall only be done with the consultation of the local community and after obtaining a permit from the relevant Water Authority. Abstraction of water from wetlands shall be avoided. Where necessary, permission has to be obtained from relevant authorities.

Temporary damming of streams and rivers shall be done in such a way avoids disrupting water supplies to communities downstream, and maintains the ecological balance of the river system. No construction water containing spoils or site effluent, especially cement and oil, shall be allowed to flow into natural water drainage courses. Wash water from washing out of equipment shall not be discharged into water

courses or infrastructure such as road drains. Site spoils and temporary stockpiles shall be located away from the drainage system, and surface run off shall be directed away from stockpiles to prevent erosion.

Traffic Management

Location of access infrastructure such as roads/detours shall be done in consultation with the local community especially in important or sensitive environments. Access infrastructure such as roads shall not traverse wetland areas. Upon the completion of civil works, all access infrastructure such as roads shall be ripped and rehabilitated. Access infrastructure such as roads shall be sprinkled with water at least five times a day in settled areas, and three times in unsettled areas, to suppress dust emissions.

Blasting

Blasting activities shall not take place less than 2 km from settlement areas, cultural sites, or wetlands without the permission of the SE.

Blasting activities shall be done during working hours, and local communities shall be consulted on the proposed blasting times.

Noise levels reaching the communities from blasting activities shall not exceed 90 decibels.

Disposal of Unusable Elements

Unusable materials and construction elements such as electro-mechanical equipment, pipes, accessories and demolished structures will be disposed of in a manner approved by the SE. The Contractor has to agree with the SE which elements are to be surrendered to the Client's premises, which will be recycled or reused, and which will be disposed of at approved landfill sites.

As far as possible, abandoned pipelines shall remain in place. Where for any reason no alternative alignment for the new pipeline is possible, the old pipes shall be safely removed and stored at a safe place to be agreed upon with the SE and the local authorities concerned.

Complete pipes as well as broken parts thereof have to be treated as hazardous material and disposed of as specified above.

Unsuitable and demolished elements shall be dismantled to a size fitting on ordinary trucks for transport.

Health and Safety

In advance of the construction work, the Contractor shall mount an awareness and hygiene campaign. Workers and local residents shall be sensitised on health risks particularly of AIDS.

Adequate infrastructure such as road signs to warn pedestrians and motorists of construction activities, diversions, etc. shall be provided at appropriate points.

Construction vehicles shall not exceed maximum speed limit of 40 km per hour.

Repair of Private Property

Should the Contractor, deliberately or accidentally, damage private property, he shall repair the property to the owner's satisfaction and at his own cost. For each repair, the Contractor shall obtain from the owner a certificate that the damage has been made good satisfactorily in order to indemnify the Client from subsequent claims.

In cases where compensation for inconveniences, damage of crops etc. are claimed by the owner, the Client has to be informed by the Contractor through the SE. This compensation is in general settled under the responsibility of the Client before signing the Contract. In unforeseeable cases, the respective administrative entities of the Client will take care of compensation.

Contractor's Environment, Health and Safety Management Plan (EHSMP)

Within six weeks of signing the Contract, the Contractor shall prepare an EHSMP to ensure the adequate management of the health, safety, environmental and social aspects of the works, including

implementation of the requirements of these general conditions and any specific requirements of an ESMP for the works.

The Contractor's EHSMP will serve two main purposes:

- For internal purposes, to ensure that all measures are in place for adequate EHS management, and as an operational manual for contractor staff; and
- For the Client, supported where necessary by a SE, to ensure that the Contractor is fully prepared for the adequate management of the EHS aspects of the project, and as a basis for monitoring of the Contractor's EHS performance.

The Contractor's EHSMP shall provide as a minimum:

- A description of procedures and methods for complying with these general environmental management conditions, and any specific conditions specified in the ESMP;
- A description of specific mitigation measures that will be implemented in order to minimise adverse impacts;
- A description of all planned monitoring activities (e.g. sediment discharges from borrow areas) and the subsequent reporting; and
- The internal organisational, management and reporting mechanisms put in place for such.

The Contractor's EHSMP will be reviewed and approved by the Client before start of the works. This review should demonstrate if the Contractor's EHSMP covers all of the identified impacts, and has defined appropriate measures to counteract any potential impacts.

EHS Reporting

The Contractor shall prepare bi-weekly progress reports to the SE on compliance with these general conditions, the project ESMP if any, and the contractor's own EHSMP. An example format for a Contractor EHS report is provided below.

It is expected that the Contractor's reports will include information on:

- EHS management actions/measures taken, including approvals sought from local or national authorities;
- Problems encountered in relation to EHS aspects (incidents, including delays, cost consequences, etc. as a consequence);
- Lack of compliance with contract requirements on the part of the Contractor;
- Changes of assumptions, conditions, measures, designs and actual works in relation to EHS aspects; and
- Observations, concerns raised and/or decisions taken with regard to EHS management during site meetings.

It is advisable that reporting of significant EHS incidents be done immediately. Such incident reporting shall therefore be done individually. Also, it is advisable that the Contractor keep her/his own records on health, safety and welfare of persons, and damage to property. It is advisable to include such records, as well as copies of incident reports, as Annexes to the bi-weekly reports.

A sample format for an incident notification is shown below. Details of EHS performance will be reported to the Client through the SE's reports to the Client.

Training of Contractor's Personnel

The Contractor shall provide sufficient training to his own personnel to ensure that they are all aware of the relevant aspects of these general conditions, any project ESMP, and his own EHSMP, and are able to fulfil their expected roles and functions. Specific training should be provided to those employees that have particular responsibilities associated with the implementation of the EHSMP. General topics should include:

• EHS in general (working procedures);

- Emergency procedures; and
- Social and cultural aspects (awareness raising on social issues).

Cost of Compliance

It is expected that compliance with these conditions is already part of standard good workmanship and state of art as generally required under this Contract. The item "Compliance with Environmental and Social Management Conditions" in the Bill of Quantities covers this cost. No other payments will be made to the Contractor for compliance with any request to avoid and/or mitigate an avoidable EHS impact.

EXAMPLE FORMAT: ENVIRONMENTAL, HEALTH AND SAFETY (EHS) REPORT

Contract:

Period of Reporting:

EHS Management Actions/Measures:

Summarise EHS management actions/measures taken during period of reporting, including planning and management activities (e.g. risk and impact assessments), EHS training, specific design and work measures taken, etc.

EHS Incidents:

Report on any problems encountered in relation to EHS aspects, including its consequences (delays, costs) and corrective measures taken. Include relevant incident reports.

EHS Compliance:

Report on compliance with Contract EHS conditions, including any cases of non-compliance.

Changes:

Report on any changes of assumptions, conditions, measures, designs and actual works in relation to EHS aspects.

Concerns and Observations:

Report on any observations, concerns raised and/or decisions taken with regard to EHS management during site meetings and visits.

Signature (Name, Title Date): Contractor Representative

EHS INCIDENT NOTIFICATION Provide within 24 hrs to the Supervising Engineer

Originators Reference No:

Date and Time of Incident:

Location of Incident:

Name of Person(s) involved:

Employing Company:

Type of Incident:

Description of Incident: Where, when, what, how, who, operation in progress at the time (only factual)

Immediate Action: Immediate remedial action and actions taken to prevent reoccurrence or escalation

Signature (Name, Title, Date): Contractor Representative

ANNEX 4: PROTECTION OF CULTURAL PROPERTY

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

The initial phase of the proposed emergency reconstruction operations pose limited risks of damaging cultural property since projects will largely consist of small investments in community infrastructure, reconstruction of existing structures, and minor public works. Nevertheless, the following procedures for identification, protection from theft, and treatment of discovered artefacts should be followed and included in standard bidding documents.

Chance Find Procedures

Chance find procedures will be used as follows:

- Stop the construction activities in the area of the chance find;
- Delineate the discovered site or area;
- Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be present until the responsible local authorities and the Ministry in charge of Department of Archaeology and Museums take over; and
- Notify the supervisory Engineer who in turn will notify the responsible local authorities and the Ministry of Culture immediately (within 24 hours or less);

Responsible local authorities and the Ministry in charge of Department of Archaeology and Museums would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by the archaeologists of the Department of Archaeology and Museums (within 72 hours). The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values.

Decisions on how to handle the finding shall be taken by the responsible authorities and the Ministry in charge of Department of Archaeology and Museums. This could include changes in the layout (such as when finding an irremovable remain of cultural or archaeological importance) conservation, preservation, restoration and salvage.

Implementation for the authority decision concerning the management of the finding shall be communicated in writing by the Ministry in charge of Department of Archaeology and Museums.

Construction work could resume only after permission is given from the responsible local authorities and the Ministry in charge of Department of Archaeology and Museums concerning safeguard of the heritage.

These procedures must be referred to as standard provisions in construction contracts, when applicable. During project supervision, the Site Engineer shall monitor the above regulations relating to the treatment of any chance find encountered are observed.

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

ANNEX 5: GENDER MAINSTREAMING AND VULNERABILITY ASSESSMENT

Indicative Framework for Assessing and Mainstreaming Gender Concern

Gender issues are not only a part of a national discourse but also they should be integrated into policies and development programs. To this end and as part of project preparation, a gender study and consultations with communities should be conducted to assess the challenges and opportunities for the mainstreaming of gender concerns in the project.

Objective

- Ascertain how to promote women's participation in the project and in particular activities.
- Determine under what conditions women could participate in the community-based activities.
- Determine under what conditions boys and girls could participate in the community-based activities.
- Determine under what conditions maginalised clans could participate in the community-based activities
- Determine under what conditions displaced populations could participate in the communitybased activities
- Determine potential negative impacts and potential mitigation measures

Focus/Scope of the Study

In particular, the study should provide information on:

- Women's needs: aims to assess women's transport needs and identify ways to address such needs, including during sub-project selection;
- Women's voice in community consultation: aims to identify mechanisms to ensure women's preferences are reflected in community consultations, whether for consultations on social safeguards or sub-project selection;
- Women's participation in community-based maintenance: aims to identify context-specific entry points and mechanisms (e.g. quotas) for women's participation in the maintenance of rehabilitated infrastructure such as roads;
- Voice of the youth, marginalised clans and displaced populations to ensure preferences are reflected in community consultations, whether for consultations on social safeguards or sub-project selection or participation in sub-projects; and
- Project impact on women's livelihoods and youth: recommend indicators or give indications on sex-disaggregation of existing indicators to reflect the project direct and indirect impact on livelihoods, and on marginalized clans and displaced populations.
- Identify any potential security considerations or challenges that might impact women, youth , displaced populations or other vulnerable groups.

ANNEX 6: GRIEVANCE REGISTRATION FORM

COMPLAINANT DETAILS			
Complainant's name (or name			
of a representative for			
complainant/s)			
Complainant's address			
Complainant's telephone			
number and e-mail address (if			
available)			
Preferred language of			
communication			
	I wish to raise my grievance	anonymously	
Complainant confidentiality	I request that my identity is r	ot disclosed to	anyone internally except the
	grievance coordinator handli	ng my case	
I would prefer if the person	male	female	gender does not matter
contacting me is:			
GRIEVANCE DETAILS			
Date			
Description of incident			
a	One-time incident/grievance	(date)	
Severity	Recurring (how many times)	• • • • •	
~	Ongoing (currently experient	cing problem)	
Complainant's request/proposal			
to resolve grievance (Please			
explain what should be done to			
solve this problem)			
Grievance type (environment,			
human rights, livelihood, health,			
legal, property, corruption)	1	1.	1.1
Level of damage:	low med	num	nign
Additional documentation			
related to grievance	If complement is yout at and	in the accention	the complication of and an
verbai Complaint	in complainant is verbal and	in the case that	une compliant cannot read or
	write, the grievance coordina	ttor will help to	write it down.

ANNEX 7: DETAILS OF PUBLIC CONSULTATIONS

Public Consultation at Garowe



Expanding Horizons. Enriching Lives

STAKEHOLDER CONSULTATION WORKSHOP ON ENVIRONMENTAL AND SOCIAL IMPACT OF THE REHABILITATION OF ROADS PROJECT

12[™] JANUARY, 2017

A Project supported by UNOPS & the World Bank Consultants: IPE GLOBAL (AFRICA) LIMITED, KENYA

The workshop was held at the Puntland Peace and Research Centre, Garowe and began with registration at 12:30 on Thursday, 12 January 2017 and concluded by 17:15 in accordance with the agenda below:

TIME	ACTIVITY
12:30 - 13:00	Prayers and Registration
13:00 - 14:00	Lunch
14:05 - 14:10	Address by UNOPS representative
14:10-14:15	Address by IPE Global Consultant (Mr Mohamed Bashir Maalim)
14:15 - 14:20	HE the Mayor
	Technical Sessions
14:20 - 15:15	Purpose and application of an ESMF (Dr Richard Pagett)
15:15 - 15:35	Tea Break
15:35 – 17:10	Applying the ESMF to urban roads (Dr Richard Pagett)
	Questions, answers and suggestions by participants
17:10 - 17:15	Concluding remarks by HE the Mayor or designated representative
17:15	Programme over and depart

A total of 28 persons (of whom ten were women) signed in and attended (see list below). In the absence of the World Bank, introductory remarks were made by UNOPS, by the PIU of the Municipality, by IPE Global and HE the Mayor, followed by self-introduction of persons. IPE explained the purpose of the meeting and a presentation of the ESMF was made.

After the presentation, participants were invited to engage and discuss any part of the Project and the ESMF, noting that this would inform the final version.

QUESTION	RESPONSE
What is the perception of the community about the Project?	<i>The project will improve socio-economic status of the beneficiaries and it is fully supported</i>
Do you all understand the Project concept and benefit?	Yes
Has there been conflicts relating to the land where Project?	No, these are improvements of existing roads
Who owns part or all of the land for the Project?	These are existing public roads
How do people acquire land?	Allocated by the Municipal Council, inheritance and purchase
Are there local mechanism s for settling land disputes?	Yes, i.e. traditional way. through courts or through elders solving land disputes
Do individuals own or inherit land in your community?	Yes
Do women in your community have access to land? If no, why not. How do women gain access to land?	Yes, women own land in Garowe
Do women participate in community discussion and decision making? If not, why or why not.	Yes they have equal right on community issues
How much is a plot of land?	Depends on the site and size (location)
What is the population of the Project-affected community?	Between 100,000 to 390,000 beneficiaries, though Garowe city will benefit as a whole
What are the key means of livelihood in this community?	Business, remittances, farming and livestock rearing
Would compensation be given for the economic crops demolished and those soon to be demolished?	Yes

To facilitate this, several initial questions were posed.

QUESTION	RESPONSE
Means of transportation/movement?	Various types, including public and private vehicles and motor bikes
What are the forms of cooperative societies in the locality?	Business, farmers, poultry and women societies
Are there herdsmen?	Yes
In what way do the herders rear their cattle to avoid destruction of public crops and assets?	They have their rules of engagement and herders graze their animals away from the crop farmers
How can the activities encroachment on land be avoided or controlled?	Community awareness, enforcement of laws and regulations
Has there been youth migration?	Yes, due to lack of employment and financial need
Expectation from the Project?	Poverty reduction, improvement of socio-economic status and improved transportation in the city
Commitment of the community to Project implementation	<i>Community is ready to contribute their land for the project and are fully committed to the project</i>

Other Issues Raised

During discussions, the following issues were raised:

- Other agencies involved in the field of Environment to be listed and consulted include the Ministry of Public Works and Housing and;
- Further documents were provided (listed in Bibliography)

Conclusions

There was excellent participation by all the delegates, representing a good cross-section of stakeholders including from the communities, religious leaders, agencies, university, NGOs and various Municipality entities.

The Project was welcomed and all parties were eager to see full implementation with all safeguards as soon as possible. UNOPS was very complimentary about the clarity of the presentation and the Municipality PIU participated fully.

Participants

The following signed in:

	NAME	ORGANISATION	FUNCTION
1	Hassan Mohamed Issa	Garowe Municipal (GM)	Mayor
2	Abdigafar Abdulrahman	GM	Executive Secretary
3	Eng. Ahmed Aden	UNOPS	National Liaison Officer
4	C/Laahi Maxamed Jibril	Nabadon (peace maker)	Nabadon
5	Maxamud C/Lahi	Nabadon (peace maker)	Nabadon
6	Mohamed Dunye	Nabadon (peace maker)	Nabadon
7	Burhaam Maxamed Jibril		Admin and Finance
8	Luul Maxamed	Sahal Village	Village Head
9	Xalimo Max'd Cali	1 August Village	Village Head
10	Xaliimo Axmed Cisman	Hanti Wadaag Village	Village Head
11	Abshiro Ibrahim	Waabari Village	Village Head
12	Xaliimo C/Qaadir	Xartadab Village	Secretary
13	Jawahir Shire	Hodan Village	Village Head
14	Xalimo Khaliif	Israac Village	Village Head
15	Wiilo Maxamed Warsame	Hagan Village	Village Head
16	Farxiyo Maxamud	Horsed Village	Deputy Village Head
17	Asha Abdi Hussein	Local Government	Council
18	Mohamed Abdirisak Wayrah	Local Government	Property Admin
19	Abdinasir Abdullahi Bare	PIU	M&E Specialist
20	Abdinur Mohamed Barre	Somali Urban Investment Planning Project	Procurement Specialist
21	Osman Jama	Ministry of Planning	Officer
22	Abdulkadir Yasin Burlshok	Garowe District	Director of Environment
23	Faisal Abdi Mumin	PIU	E&S Safeguard Specialist
24	Najib Ahmed Ali	Ministry of Env. Wildlife & Tourism	TA Rangeland
25	Mohamed Abdirahman Gure	PIU	Garowe Coordinator
26	Mohamed Abdullahi	GM	Project Eng.
27	C/Casiis Bashiir Siciid	Dowlada Hose	Media

Signed Attendance

Num	ber Name	Organization	dot	Contact	Signature
1	Hosen Molecus Is	EM	Mayor	7798154	-
2	Abdigster Abderland	GM	Executive	7793019	As alson-
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Photographs

The following photographs provide an impression of the event:















Environment and Social Management Framework