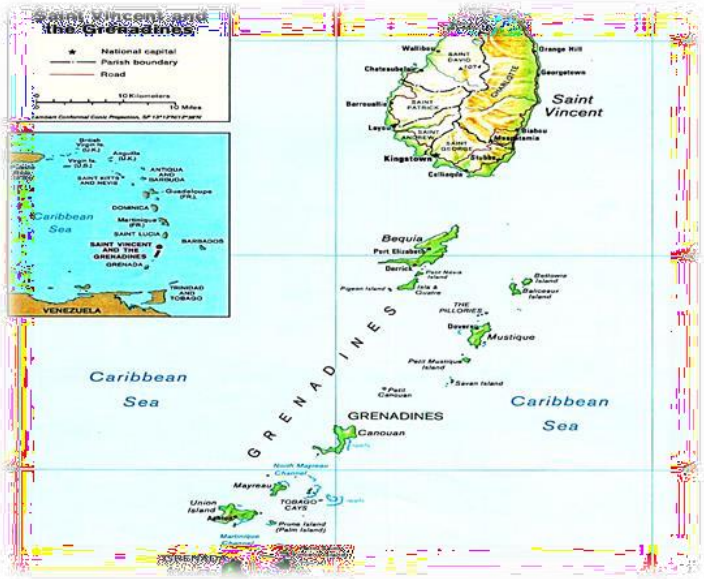

The Government of
St. Vincent and the Grenadines
The Ministry of Finance, Economic Planning, and Information Technology

Environmental and Social Management Plan: Waterloo #3 Road & Jennings Mountain Road and River Fords

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN FOR THE RECONSTRUCTION AND REPAIR OF WATERLOO #3 ROAD & JENNINGS MOUNTAIN ROAD AND RIVER FORDS

2023-016

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FINAL

28 August 2024

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DOCUMENT CONTROL SHEET

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Submission Medium:	Email

Alpha

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

Consultancy Services for Site 1: Design for Reconstruction and Repairs to Waterloo #3 Road and Site 2: Design Review for Reconstruction and Repairs to Jennings Mountain Road and River Fords

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28 August 2024

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ACRONYMS

BRAGSA	**Roads Buildings and General Services Agency**
C-ESMP	**Contractors Environmental and Social Management Plan**
CWSA	**Central Water and Sewerage Authority**
ESF	**Environmental and Social Framework**
ESIA	**Environmental and Social Impact Assessment**
ESMP	**Environmental and Social Management Plan**
ESS	**Environmental and Social Standard**
GIIP	**Good International Industrial Practice**
GoSVG	**Government of St. Vincent and the Grenadines**
GRC	**Grievance Redress Committee**
GRM	**Grievance Redress Mechanism**
ILO	**International Labour Organisation**
IPF	**Investment Project Financing**
LMP	**Labour Management Plan**
MSD	**Musculoskeletal Disorder**
MTW	**Ministry of Transport and Works**
NEMO	**National Emergency Management Organisation**
OHS	**Occupational Health and Safety**
PAP	**Project Affected Persons**
PIU	**Project Implementation Unit**
PMU	**Project Management Unit**
PPE	**Personal Protective Equipment**
PPU	**Physical Planning Unit**
SH	**Sexual Harassment**
SWMU	**Solid Waste Management Unit**
UNFCCC	**United Nations Convention on Climate Change**
UNCBD	**United Nations Convention on Biological Diversity**
VEEP	**Eruption Emergency Fund**
WB	**World Bank**

1. INTRODUCTION

1.1 BACKGROUND:

Among the main issues affecting the approximately 814 km road network of St. Vincent are (a) vulnerability to natural hazards and the effects of climate change; (b) limited funding for routine and periodic maintenance activities; and (c) limited institutional capacity in respect of road maintenance. In recent years, floods following the occurrence of hurricanes, storms and extreme rainfall events have caused substantial damage to roads, including drainage and slope stabilization, and consequential losses to the national economy. The foregoing challenges were compounded by the volcanic eruption of 2021. Rural communities have been disproportionately impacted by these road sector challenges. The livelihoods of farmers and farming communities were totally disrupted by the volcanic eruption and the capacity of the disaster management agencies to deliver relief was severely hampered.

The government of St. Vincent and the Grenadines (GoSVG) received funding from the World Bank (WB) under the Volcanic Eruption Emergency Project (VEEP) to support the post eruption recovery activities. The Jennings Mountain Road and River Fords and the Waterloo #3 Road have been identified for reconstruction and repairs under this funding.

1.2 OBJECTIVES

This Environmental and Social Management Plan (ESMP) outlines the agreed measures to be taken during project implementation, the actions required for implementation, the allocation of institutional responsibilities, cost and implementation schedule showing links with the overall project implementation plan as well as the associated, performance monitoring and reporting procedures. The objectives of the ESMP are therefore to:

- Bring the project into compliance with applicable national environmental and social legal requirements and WB ESF.
- Outline the mitigating/enhancing, monitoring, consultative and institutional measures required to prevent, minimize, mitigate or compensate for adverse environmental and social impacts, or to enhance the project beneficial impacts.
- Address capacity building requirements to strengthen Occupational Health and Safety requirements where necessary.
- To provide guidance on how to manage Environmental and Social Health and Safety (ESHS) risks

in all phases of the project cycle.

- To ensure that construction activities are in compliance with legal requirements and WB Environment and Social Safeguards (ESS).
- To ensure the safety of persons living and working in proximity to the project.
- To assist the preparation of bidding and contract documents to ensure the works are carried out in accordance with requirements.

1.3 PROJECT DESCRIPTION

This project involves two road segments, a) The Jennings Mountain Road and River Fords, and b) the Waterloo #3 Road.

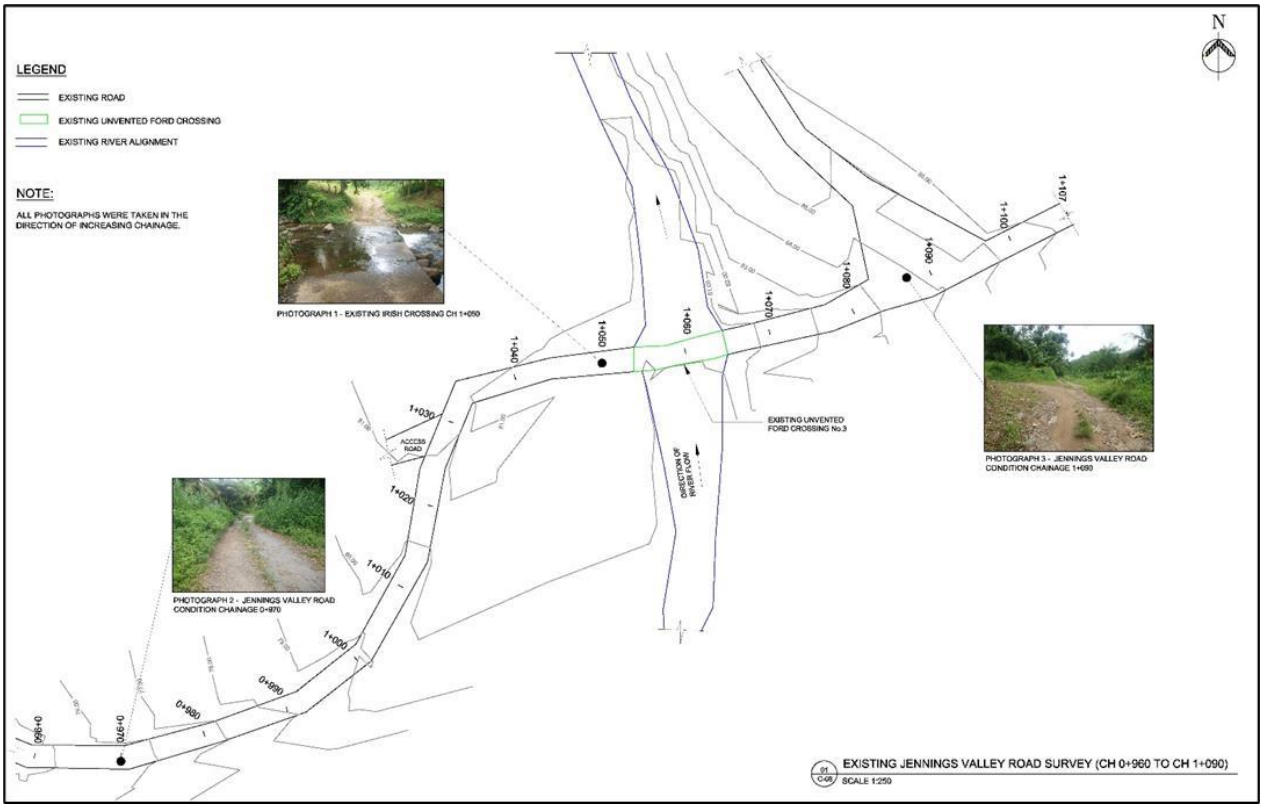


Figure 1: Layout of Jennings Road (CH0+960-CH1+107)

The Jennings Road segment is 1.1 km of unsurfaced road that leads to the Jennings water catchment. The road crosses small streams in four places by means of Irish bridges. The entire 1.1 km of road including the river crossings will be covered with double strength concrete designed to function under moist conditions. The modification to the existing road will include creation or improvement to road shoulders as the existing road alignment allows to facilitate two-way traffic; improvement in concrete strength to all effective functioning given the moisture level existing in the area; and V-shaped drains in the middle of the road to limit the need for longitudinal drains which will be very difficult in some areas and may require land use change and land acquisition. Some slope stabilization may be required where farming

takes place high above the road. Benching of these slopes are recommended followed by re-vegetation.

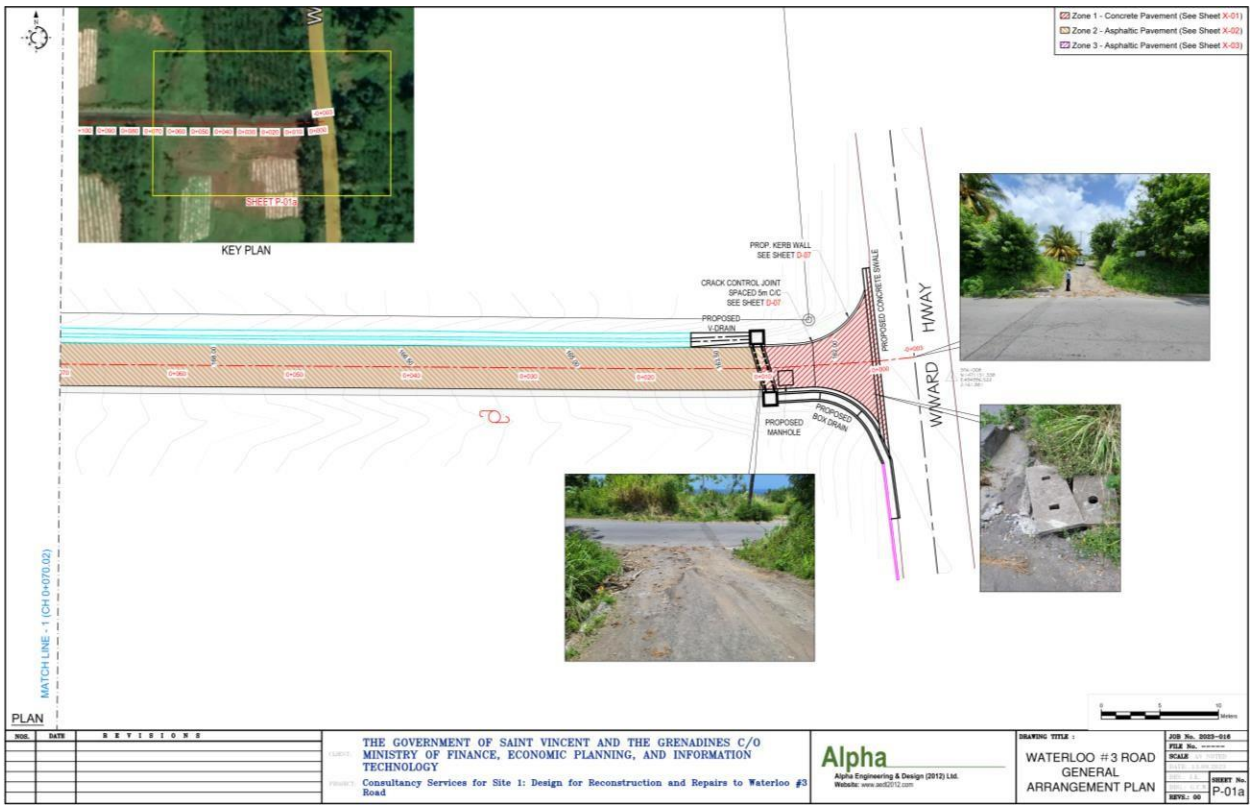


Figure 2: Layout of Waterloo Road (CH0+000-CH0+070)

The Waterloo Road is an asphalt road that has deteriorated due to weathering, lack of maintenance, heavy use and vegetation growth. This road will be cleared, the base rebuilt, and an asphalt surface dressing added. The road measures 3.66m in width with a 0.61m wide shoulder. The carriageway would have a 100-200 mm thick sub-base covered by a 150mm thick granular base-course on top of which will be 40mm thick asphalt pavement. Drain designs will depend on the location and function varying among box drain, V drain, or step drain all appropriately sized to accommodate the anticipated storm water flow.

Repair and reconstruction will involve:

- Road clearing
- Alignment and realignment
- Drainage construction
- Surface construction (asphalt and concrete)
- Soft engineering to improve slope stability on some sections of Jennings Road
- Irish bridge construction at river crossings

2. POLICY, LEGISLATIVE AND INSTITUTIONAL FRAMEWORK

Development projects in St. Vincent and the Grenadines fall under the purview of the Project Unit in the Ministry of Finance, Economic Planning, and Information Technology which has safeguards and fiduciary responsibilities. Other Ministries of government have varying roles and responsibilities guided by the laws of SVG. The Town and Country Planning Act of 1992 gives the Physical Planning Unit in the Ministry of Transport, Works, Land and Surveys and Physical Planning the authority to guide physical planning in Saint Vincent & the Grenadines. The Act "makes provision for the orderly development of land, the assessment of the environmental impacts of development, the grant of permission to develop land and for other powers to regulate the use of land, and for related matters." Under Article 29 of the Act, an EIA for environmentally sensitive projects or activities is required. The Act makes provision for a Physical Planning Board which has the legal authority for environmental management in general including the evaluation of the need for, and level of EIA required.

This section of the report gives a synopsis of the roles and responsibilities of Ministries relative to this project and the laws that guide the execution of their duties. **Table 1** provides a synopsis of national laws relevant to this project.

2.1 NATIONAL LEGISLATIONS

Table 1: National Legislation

Legislation	Description and relevance
Town and Country Planning Act, 1992	Guides planning in SVG. Under this act, the PPU has the legal authority for environmental management in general, including the evaluation of the need for and level of EIA requirements. The PPU is also responsible for the orderly development of lands.
Forestry Reserve Conservation Act, 1992	Makes provision for the conservation, management and proper use of forest, watersheds and the declaration of forest conservation areas. It provides for measures to facilitate agricultural development and stabilization of lands.
Land and Surveyors Act, 1973	Mandates that each parcel or piece of land for which a survey plan has been prepared be registered with the Department of Lands and Surveys. The Act authorizes the Chief Surveyor to manage the rental and sale of all state/crown lands and to prepare and publish official land maps of SVG
Central Water and Sewerage Act, 1978, amended in 1992	Makes provision for the conservation, control, apportionment, and use of water resources of SVG.

Waste Management Act, 2000	Established the SWMU in November 1999 which is responsible for the management, including collection and disposal, of solid waste in SVG.

Legislation	Description and relevance
Public Health Act, 1977	Regulates the environmental health issues, including monitoring of communicable diseases, in SVG and provides remedies for same.
Public Health (Amendment) Act, 2020	Revises and strengthens the powers of health officers as it regards communicable diseases and remedies to be enacted in the case of non-compliance.
Litter Act, 1991	Makes provisions for the control of indiscriminate disposal of waste.
Wages Councils Act, 1953	Provides for the establishment of wages councils and the making of wages council orders. Wages regulations address: minimum wage, hours of work, overtime wages, vacation and sick leave, maternity leave, health and safety.
Accidents and Occupational Diseases (Notification) Act, 1952	Places a legal obligation on the employer to inform the Labor Commissioner in writing on the prescribed form, any accident involving any worker that arises out of and in the course of employment and which causes loss of life or serious bodily injury or disables a worker. The employer is also obligated to inform the Labor Commissioner on any occupational disease which he reasonable believes or suspects to have occurred among workers employed by him. The Act also provides protection for the employee against arbitrary dismissal or refusal to hire worker based on race, colour, sex, marital status, pregnancy, religion, political opinion, nationality or social origin.
Protection of Employment Act, 2003	Provides for the maintenance and promotion of good employment relationships between employers and employees. It also addresses matters of severance and settlement of disputes.
Equal Pay Act, 1994	Provides for the removal and prevention of discrimination, based on the sex of the employee, in the rates of remuneration for males and females in paid employment, and for all incidental matters.
Employment of Women, Young Persons and Children Act, 1935	Regulates the employment of women, young persons and children in industrial undertakings and on ships in accordance with the following International Labor Organization (ILO) Conventions: Minimum Age (Industry) Convention (Revised) 1937; Night Work of Young Persons (Industry) Convention 1919; and the Night Work (Women) Convention 194.
The Employers and Servants Act, 1937	Requires wages to be paid by the employer to the worker only in money and the payment of wages is to be made at intervals not exceeding fourteen days.
National Insurance Act, 1986	Regulates employees' contributions to the National Insurance Services (NIS) for workers benefits.

Wages regulations (Industrial Workers) order, 2008	Sets out the minimum wage to be paid to a security worker and specifies the hours of work, overtime, vacation leave, sick leave and maternity

Legislation	Description and relevance
	leave in the Schedule to the Order. Repeals the Wages Regulation (Industrial Workers) Order, 2003.
Wages Regulation (Workers in Offices of Professional order, 2008	Sets out the minimum wage to be paid to a worker in the office of a professional (doctors, lawyers, accountants, architects, contractors, engineers, tax consultants, data entry firms, shipping agencies, custom brokers, insurance companies, secretarial services etc.) and specifies the hours of work, overtime, vacation leave, sick leave and maternity leave in the Schedule to the Order. Repeals the Wages Regulation (Workers in Office of Professionals) Order, 2003.

2.2 REGIONAL AND INTERNATIONAL POLICIES AND GUIDELINES

The World Bank Environmental and Social Framework

In August 2016, the World Bank adopted a new set of environment and social policies called the Environmental and Social Framework (ESF) Environmental and Social Standards (ESS) (worldbank.org). As of October 1, 2018, the ESF applies to all new World Bank investment project financing. Included in the ESF are ten Environmental and Social Standards (ESSs) (**Table 2**). Additionally, an Environment and Social Management Framework has been designed for this project. https://veep.gov.vc/veep/images/pdf/VEEP_final_ESMF_SEPTEMBER_2023.pdf

Table 2: WB Environmental and Social Standards

Environmental and Social Standards (ESS)	Description and Objectives
ESS1 Assessment and Management of Environmental and Social Risks and Impacts	ESS1 sets out the Borrower's responsibilities for assessing, managing and monitoring environmental and social risks and impacts associated with each stage of a project supported by the Bank through Investment Project Financing (IPF), in order to achieve environmental and social outcomes consistent with the Environmental and Social Standards (ESSs).
ESS2 Labor and Working Conditions	ESS2 recognizes the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. It promotes sound worker-management relationships and enhance the development benefits of a project by treating workers in the project fairly, providing safe and healthy working conditions and prevention of force labour and child labour.

ESS3 Resource Efficiency and Pollution Prevention and Management	ESS3 recognizes that economic activity and urbanization often generate pollution to air, water, and land, and consume finite resources that may threaten people, ecosystem services and the environment at the local,

Environmental and Social Standards (ESS)	**Description and Objectives**
	regional, and global levels. This ESS sets out the requirements to address resource efficiency and pollution prevention and management throughout the project life cycle.
ESS4: Community Health and Safety	ESS4 addresses the health, safety, and security risks and impacts on project-affected communities and the need to avoid or minimize such risks and impacts, with particular attention to people who, because of their particular circumstances, may be vulnerable.
ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	ESS5 seeks to avoid involuntary resettlement. Where involuntary resettlement is unavoidable, it will be minimized and appropriate measures to mitigate adverse impacts on displaced persons (and on host communities receiving displaced persons) will be carefully planned and implemented.
ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	ESS6 recognizes that protecting and conserving biodiversity and sustainably managing living natural resources are fundamental to sustainable development and it recognizes the importance of maintaining core ecological functions of habitats, including forests, and the biodiversity they support. Sustainable management of primary production and harvesting of living natural resources is also recognized.
ESS7: Indigenous Peoples Historically underserved communities.	ESS7 ensures that the development process fosters full respect for the human rights, dignity, aspirations, identity, culture, and natural resource-based livelihoods of Indigenous Peoples.
ESS8: Cultural Heritage	ESS8 recognizes that cultural heritage provides continuity in tangible and intangible forms between the past, present and future. It sets out measures designed to protect cultural heritage throughout the project life cycle.

ESS10: Stakeholder Engagement and Information Disclosure	ESS10 recognizes the importance of open and transparent engagement between the client and project stakeholders as an essential element of good international practice. It ensures that appropriate project information on environmental and social risks and impacts is disclosed to stakeholders in a timely, understandable, accessible and appropriate manner and format. ESS10 also ensures that project-affected parties (PAPs) have accessibility and inclusive means to raise issues and grievances and allow the client to respond to and manage such grievances through the Grievance Redress Mechanism (GRM). Effective stakeholder engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation.

2.3 INTERNATIONAL AGREEMENTS

SVG is signatory to and participate in several international conventions and treaties designed to formalize international cooperation on regional and global social protection strategies and protection of the environment; the ones most relevant to this project are presented in Table 3.

Table 3: International Treaties and Conventions

Treaty/Convention	Purpose/Relevance
Convention concerning the Discrimination in Respect of Employment and Occupation	To declare and pursue national policy designed to promote, by methods appropriate to national conditions and practice, equality of opportunity and treatment in respect of employment and occupation, with a view to eliminating any discrimination in respect thereof.
Convention of the Elimination of All Forms of Discrimination against Women	To end discrimination against women in all areas of life. It defines what constitutes discrimination against women and sets up an agenda for national action to end such discrimination.
Convention on the Rights of Persons with Disabilities	To promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to provide respect for their inherent dignity.
United Nations Convention on Biological Diversity (UNCBD)	Conceived as a practical tool for translating the principles of Agenda 21 into reality, the convention recognizes that biodiversity is more than plants, animals and micro-organisms and their ecosystems – it is also about people and our need for food security, medicine, clean air and water, shelter and a clean healthy environment in which to live.
United Nations Framework Convention on Climate Change (UNFCCC)	The Convention seeks to stabilize greenhouse gas concentrations "at a level that would prevent dangerous anthropogenic (human induced) interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner."

United Nations Convention to Combat Desertification (UNCCD)	A Convention to combat desertification and mitigate the effects of drought through national action programs that incorporate long-term strategies supported by international cooperation and partnership arrangements.
Ramsar Convention	The intergovernmental treaty that provides the framework for the conservation and wise use of wetlands and their resources. Parties to the convention have adopted a specific framework on water including river basin management, water allocation and ground water as present in the project area.

2.4 ROLES AND RESPONSIBILITIES (INSTITUTIONAL FRAMEWORKS)

Built in redundancy and misunderstanding of legal mandate may appear as overlapping of responsibilities in the execution of environmental duties in SVG. For this reason and to facilitate the smooth execution of this project the following roles and responsibilities are spelt out.

The Town and Country Planning Act # 45 of 1992 makes the **Physical Planning Department** of the Ministry of Housing Informal Human Settlement, Lands and Surveys responsible for the orderly development of lands including subdivision and the construction of infrastructure. The Physical Planning Board will review the planning applications including engineering drawings and ESIA and give authorization for the execution of the project if the plan is approved.

The PPU also has a monitoring role; they perform site visits to ensure compliance with the approved development plan.

The **Ministry of Finance, Economic Planning & Information Technology** has Fiduciary responsibility for all development initiatives using external financing. For this project, the Project Management Unit (PMU) within this ministry will oversee implementation.

The **Ministry of Health, Wellness and Environment** has the overall mandate for management of public health issues in SVG including monitoring of communicable diseases.

The **Ministry of Agriculture, Forestry, Fisheries, Rural Transformation, Industry and Labour** is responsible for the formulation, articulation and implementation of all policies and plans relating to Agriculture, Forestry, Fisheries, Rural Transformation, Industry and Labour.

Ministry of Transport, Works, Urban Development and Local Government (MTW) is the lead agency within GoSVG for infrastructure development and maintenance.

Maintenance of road infrastructure is the responsibility of the **Roads, Buildings, and General Services**

Authority (BRAGSA).

Land and Surveys (and Physical Planning) is responsible for approval of plans and preparation of GIS hazard maps as well as regulation of land tenureship.

The **National Emergency Management Organization (NEMO)** is a statutory agency with responsibility for "coordinating disaster management in the state". The National Emergency Council, the National Emergency Executive Committee and District Disaster Management Committees are the key organs of NEMO. In the event of major accidents like landslides or flooding in the project area, NEMO will be the key response agency.

The **Central Water and Sewerage Authority (CWSA)** is the statutory agency responsible for the production and distribution of potable water on Saint Vincent and for waste management in SVG, and advises on the improvement, preservation, conservation and utilization of the country's resources. There is a small stream crossing the project area that will be a concern for the CWSA.

3. ENVIRONMENTAL AND SOCIAL IMPACTS

These Environmental and Social Impacts presented here were identified during the Environmental and Social Screening of the site and the intended works. This assessment was conducted between May 22nd and May 25th, 2023. The assessment covers all physical activities relating to the repair and reconstruction of Jennings Mountain Road and Waterloo # 3 Road. Impacts relating to air quality for both road segments and water quality for Jennings were rated as high, all other impacts were rated low to moderate. Impacts related to the sub-projects are summarized in **Table 3-1**.

Table 4: Environmental and Social Impacts

Environmental Impacts	**Details**	**Rate of Impact**
Dust Nuisance	During the construction period, earth works, aggregate extraction and use, cement works and increase traffic on theroad will all generate some dust. Dust impact could be moderate.	Moderate
Air Pollution	Dust will impact the air quality, additionally, fumes from motor vehicle and asphalt preparation will all add to the air pollution. The cumulative impact is rated as high.	High
Noise	Noise from trucks and heavy equipment will exceed ambientlevels but such noise will be intermittent, varied in sound pressure and very dispersed. The impact will be low	Low
Water Pollution	In Jennings, the road crosses stream flow in four places. Theassociated downstream areas will receive varying levels of pollution. Because of the volume of water that could be impacted and the associated biodiversity impact, water pollution is rated as high.	High
Site clearing/vegetation removal	Site clearing will involve the removal of vegetation and sometopsoil, the volumes are small, so the impact is rated as low.	Low
Solid waste	All solid waste generated by this project would be taken to the landfill site at Diamond. Solid waste impact in this regard is rated as low.	Low

Liquid waste	Fuels and oils for heavy equipment will not be stored on site.Liquid waste from humans (black water) will be removed in portable toilets.	Moderate

Environmental Impacts	**Details**	**Rate of Impact**
Soil erosion and potential land slippage	Soil erosion from this project will come in the form of benching designed to reduce the potential for land slippage; in this regard the impact is more positive than negative.	
Social Impact	**Details**	**Rate of Impact**
Traffic increase	Traffic in the area is low, consisting mainly of farmers andfarm workers. The most noticeable impact will be on the highway as construction related traffic combines with regular traffic	Moderate
Pedestrian safety	Pedestrians could be negatively impacted having to give way to heavy equipment on narrow roads.	Moderate
Restricted access to farmers	Farmers still need to move their inputs, produce, and workers while construction is ongoing. Alternate access roads have been identified to reduce potential impacts. This impact will be low.	Low
Cultural Heritage	There is no history of artefacts in these areas, but contractors are still required to observe guidelines in the event of chance find.	
Health and Safety Impacts	**Details**	**Rate of Impact**
Slip, trip and fall	This construction work is taking place over uneven surface, unstable land with loose gravel and stones. All of these make for slip, trip and fall.	Moderate
Moving objects	Road construction put workers close to moving trucks and heavy equipment. Extreme caution is required on the project site along with appropriate clothing and PPE – helmets, steel tip boots and vest.	Moderate
Excessive Noise	Heavy equipment can generate noise above acceptable working levels. It is desirable to keep noise levels below 85dBA for eight our working period.	Moderate

Manual working	Regularly lifting, carrying and handling material loads and equipment incorrectly can lead to severe injuries, including Musculoskeletal disorder (MSDS). Prime sources of this risk are the repetitive heavy lifting of equipment or loads and poor lifting posture. This project does not entail much heavy lifting.	Low

Health and Safety Impacts	**Details**	**Rate of Impact**
Exposure to particulate matter in air	Excavation, transporting and offloading aggregate and powdered cement exposes works to particulate matter in the air. Exposure to excessive dust particulates can result in serious health conditions and lasting health implications for workers, including life-threatening illnesses such as asthma, silicosis and bronchitis. Workers exposed to high levels of particulate matter should wear appropriate dusk mask.	Moderate
Risk to the community	There is no residential community in proximity to these road segments however, trucks carrying construction material could pass close to residential communities. In such cases the extra caution should be employed by drivers, and they should ensure that their cargo is secured and covered and not allowed to fall unto the streets near to communities.	Moderate

4. ENVIRONMENTAL AND SOCIAL MITIGATION PLAN

This Environmental and Social Mitigation Plan addresses all activities executed at all stages of this road construction project. The plan seeks to capture all Environmental and Social impacts associated with this project and to present mitigation measures to manage these impacts on the environment and its stakeholder.

It will also outline the method for recording and reporting Environmental and Social issues and the monitoring process to ensure compliance with the mitigation and eliminate adverse environmental and social impacts of the activities of this subproject, offset them or reduce them.

Table 5: Environmental and Social Mitigation Plan

Activity	Potential E&S impact	Mitigation/Control requirement	Relevant Condition of Contract	Additional requirement or GCC clarification to be added to the E&S Specification
Excavation and Construction	Dust Nuisance Causing Air Pollution	Dust shall be controlled so as not be a nuisance. Construction materials such as sand, cement, or other fines should be kept properly covered. Cement should be stored in a closed area. The sand and fines should be kept moistened with sprays of water while uncovered. Unpaved, dusty construction access ways should be compacted and then wet periodically. •There will be no open burning of construction /waste material at the site. •There will be no excessive idling of construction vehicles at sites.	18.3	Further to GCC18.3, dust control measures shall be implemented by the Contractor such that dust emanating from material stockpiles, the site or from vehicles or other Contractor's Equipment used in the Works shall not be a nuisance to the public or site workers, nor result in residues on animal or food crops. Measures to be implemented include spraying with water so surfaces remain wet and ensuring loads being transported are covered at all times.
Excavation and Construction	Noise	To minimize disturbance to the public, the Works shall occur Monday to Friday (except Holidays) between the hours of 7am and 5pm only. The Community /public is to be informed in advance (at least 48 hours) of any work activities to occur outside of normal working hours or on weekends. During operations, the engine covers of generators, air compressors and other	18.2 18.3 15.1	Further to GCC18.2, the OHS Manual shall describe the measures the Contractor proposes to ensure that work activities do not result in any Worker being exposed to noise in excess of the limit values set out in the ESH Guidelines. Further to GCC18.3, The Contractor shall inform the public regularly of the Works programme, and particularly in good advance notice of any particularly noisy activities that may cause nuisance or disturbance to the public.

Activity	Potential E&S impact	Mitigation/Control requirement	Relevant Condition of Contract	Additional requirement or GCC clarification to be added to the E&S Specification
		powered mechanical equipment shall be closed, and equipment placed as far away from residential areas as possible. There should be no excessive idling of construction vehicles Noise suppression components supplied by the manufacturer should be utilised at all times. Ensure all vehicles and equipment are properly serviced.		Vehicles shall not be left idling, and engine covers of generators, air compressors, and all powered mechanical or static equipment shall be sited in locations where it will have least disruption to the public. Noise attenuating measures (such as shielding) shall be implemented at locations to prevent complaints from the public. Further to GCC15.1, the Contractor shall perform the Works between the hours of 7am and 5pm, Monday to Friday (excluding Holidays). Works outside of this time will only be permitted with the Project Managers prior permission and following public consultation events describing the nature and extent of the activities being undertaken outside of the hours.
Construction	Hunting/Harvesting by Workers	Prohibit workers from hunting, foraging, logging or other activity that damages the environment	9.4 18.2 18.4	As part of the Induction Training and Code of Conduct training, the Contractor shall ensure that all Workers are informed that any hunting, logging, foraging or otherwise potentially damaging activities will not be tolerated during the execution of the Works.
Construction	Occupational Health and Safety	The contractor must ensure that an Occupational Health and Safety Plan is in place to guide work activities and provide a safe environment for workers.	18.2	The contractor shall ensure that harnesses of security devices for persons working on heights are provided and in good condition; that workers injured on the job have access to medical services.

Activity	Potential E&S impact	Mitigation/Control requirement	Relevant Condition of Contract	Additional requirement or GCC clarification to be added to the E&S Specification
		• The contractor must ensure that all workers operate within a safe environment. • All relevant Labour and Occupational Health and Safety regulations must be adhered to, to ensure worker safety. • Workers must be provided with necessary equipment as well as PPEs as per their specific tasks such as hard hats, overalls, gloves, goggles, boots, etc. which must be worn at all times while at work • Sanitary facilities must be provided for all workers on site. • The Contractor must ensure that a comprehensive first aid kit is provided on site and staff trained in basic first aid. Appropriate posting of information within the site must be done to inform workers of key rules and regulations to follow. The project should commit to safety considerations in conducting all its activities Develop and implement systems, processes, policies, and services that comply with national and international legal requirements,		

Activity	Potential E&S impact	Mitigation/Control requirement	Relevant Condition of Contract	Additional requirement or GCC clarification to be added to the E&S Specification
		Including industry standards and best practices concerning safety. The contractor shall provide a safe working environment for all employees, as far as is reasonably practicable, by the provision and maintenance of plants and systems of work that are safe and without risks to health.		
Construction	Flooding and Sedimentation Release	Periodic cleaning and maintenance of ditches and culverts on the site to remove solids, including wastes, soils, vegetation etc. so that drains and culverts do not overtop or result in sediments from site discharging into watercourses	18.3	Further to GCC 18.3, the Contractor shall ensure that all drains and culverts on site are maintained and cleared of any debris that may impede water flow or result in sedimentation or pollution of watercourses. Sediment or pollution of a watercourse will occur when discharges from the Works result in the levels set out in the EHS Guidelines being exceeded.
Pre-Construction	Permits and Approvals	Technical drawings and designs approved by Physical Planning. Approvals for the placements of signs at intersection.		List in E&S Specification and permits, consents or approvals that the contractor is expected to obtain, and those that will be provided to the contractor. It is the responsibility of the contractor to comply with any requirements of the licences, permits or consents, irrespective of who obtains. The client will be responsible for obtaining consent from Physical Planning for the works.

Activity	Potential E&S impact	Mitigation/Control requirement	Relevant Condition of Contract	Additional requirement or GCC clarification to be added to the E&S Specification
All phases	Orientation and Minimum Training of Workers.	Workers induction training should ensure they are aware of Environmental, social and health and safety requirements	9.4 18.2	In addition to GCC9.4.20 (first paragraph) and GCC18.2(g), as a minimum the general induction: General Induction for Construction Workers: Safety, Health and the Environment (https://www.wbgkggtf.org/node/3823), shall be provided as training to all Contractor's Personnel. Each Contractor's Personnel shall receive the general induction prior to their start of any Works activity on site, and at least annually thereafter. Records of the general induction training provided shall be kept. The record shall include a copy of the induction given and as a minimum the following details: • Name and signature (or mark) of trainee • Employer/ organization they work for • Date of induction training attended
Construction	Working Conditions	Worker conditions, including Child Labor, Forced Labor, Terms and Conditions, Grievance Redress Mechanism etc.	9.1	In addition to the mitigation measures outlined, the Project Manager shall approve any proposed replacement of key personnel only if their relevant qualifications and abilities are substantially equal to or better than those of the personnel listed in the Schedule
Construction	Site Protection to Prevent Soil Erosion Resulting from Excavation	Balance cut and fill. Practice benching where practicable. Use vegetation cover to reduce erosion.		

Activity	Potential E&S impact	Mitigation/Control requirement	Relevant Condition of Contract	Additional requirement or GCC clarification to be added to the E&S Specification
Construction	Community Health and Safety to Address Traffic safety, Disease Prevention and Emergency Preparedness and Response	Adoption of best transport safety practices across all aspects of project operations with the goal of preventing traffic accidents and minimizing injuries suffered by project personnel and the public. Measures should include: Emphasizing safety aspects among drivers Improving driving skills and requiring licensing of drivers Avoiding rush hours to reduce the risk of accidents Use of speed control devices and signs on the road. Regular maintenance of vehicles and use of manufacturer approved parts to minimize potentially serious accidents. Ensure access to medical treatment, confidentiality and appropriate care. Promoting collaboration with local authorities to enhance access of workers families and the community to public health services. Have an Emergency Preparedness and Response Plan that is commensurate with identified risk .	10.1	The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks. In addition to the GCC, the Contractor is expected to implement all applicable mitigation measures stated in the ESMP.
Construction	Waste Management	The contractor must develop and implement a waste management plan in		

Activity	Potential E&S impact	Mitigation/Control requirement	Relevant Condition of Contract	Additional requirement or GCC clarification to be added to the E&S Specification
		consultation with the national solid waste authorities. The contractor shall abide by all relevant waste management and public health laws. Waste collection and disposal pathways and sites will be identified for all major waste types expected from construction activities. Construction wastes will be stored appropriately on site. Liquid and chemical wastes must be stored in appropriate containers separated from the general refuse. All waste will be collected and disposed of regularly and at the approved landfills by licensed collectors. - The records of waste disposal will be maintained and made readily available for inspection. Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos or other hazardous material).		

Activity	Potential E&S impact	Mitigation/Control requirement	Relevant Condition of Contract	Additional requirement or GCC clarification to be added to the E&S Specification
Construction	Access to farmers and other users See annex 3 Also reference Figure 1	To provide access to the farmers, CWSA workers and the eco-tourism users Provide road signage indicating location of construction		Signage to indicate where construction is taking place. Commencement of construction from CH0+00 to CH0+330. This ensures a free flow of traffic while roadwork is being carried out. Clearance of Bypass road for phase II at CH 0+630. This will facilitate uninterrupted work on Phase II which is from CH 0+330 to CH 0+630

5. ENVIRONMENTAL AND SOCIAL MONITORING PLAN

This Environmental and Social Monitoring Plan provides specific details for the monitoring of environmental and social impact identified in the ESIA with implementation details in the ESMP. It identifies monitoring objectives for the specific mitigation measures linked to the various impacts identified in the ESIA and detailed in the ESMP. It provides specific technical details for monitoring (**Table 5-1**) i.e., methods to be used, sampling locations, frequency of measurements, and detection limits designed to ensure early detection of conditions that necessitate particular mitigation measures, and reporting on corrective measures.

5.1 SUPERVISION, MONITORING AND REPORTING

Prior to commencement of works, the consultant should visit the site with representatives from the client including the Environmental and Social Safeguard Specialists. An Environmental and Social Management Register and check list should be developed by the client to be maintained by the contractor. The management register should include:

- A register of environmental effects including records of measurable aspects of the site's environmental performance, relative to appropriate standards.
- A log of environmental incidents and complaints, including any unexpected events along with response measures/remedial action.
- Photographs of baseline conditions and changes resulting from project implementation; evidence of equipment comply with the requirements of the Environmental Management Plan and the Contractor's Method Statement.

The management register will also define actions to be taken/corrective action required as a result of these checks. Independent records are to be maintained by the Contractor and by the Supervisory Consultant. Records are to be made available upon request to representatives of the Client and the Client's Representatives.

5.2 ENVIRONMENTAL AND SOCIAL SAFEGUARDS MONITORING AND INSPECTION

The Environmental and Social Safeguard team and the Supervisory Consultant will carry out scheduled fortnightly visits during construction to ensure that construction works are in keeping with the guidelines and specifications of the ESIA and ESMP particularly with reference to World Bank Environmental and

Social Standards (ESS) and local laws governing environmental protection, employment and protection of vulnerable groups. The Environmental and Social Safeguards Inspection will include the following:

- Examination of the environmental and social safeguards incidents and complaints log.
- Interviews with the Contractor's Environmental and Social Safeguards Manager or Health and Safety Officer and other site staff as required.
- Visual examination of the site, to examine working practices, environmental effects, mitigation measures and monitoring activities.
- Review of the results of monitoring undertaken during construction, to identify the need for any additional environmental management or mitigation measures to be implemented.

The findings of the Environmental and Social Safeguards Inspection will be presented at the monthly site meetings. The site manager will be notified of any deficiency or non-compliance identified for which remedial action is needed. Deficiencies and non-compliance will be recorded in the project log and on a Corrective Action Request proforma along with corrective action required.

Table 6: Technical Details for Monitoring Environmental and Social Parameters

Parameter To Be Monitored	**Mitigation Measure**	**Location [Where]**	**Measurement [How]**	**Frequency [When]**	**Responsible Party [Who]**
Environmental Parameters					
Air quality	- Cover dust source (fines) - Compress and wet unpaved areas -Trucks carrying aggregate or similar material should have their sides secured and the cargo securely covered	Along the road, at construction site and any adjacent community that may be affected	-Site inspection -Monitoring particulate matter in air using monitoring equipment	Weekly	Contractor's Environmental and Social Safeguard Officer.
Noise Level	-Select equipment with recommended noise level < 80 dBA	Along the road and at the adjacent community.	Measuring of noise level using Noise meter	Bi- weekly	Contractor's Environmental and Social Safeguard Officer.
Maintenance and improvement	-Periodic cleaning and maintenance of	Culverts and drains and road shoulder	Site inspection; look for signs of overtopping or	During construction; After heavy rains	Contractor

Parameter To Be Monitored	Mitigation Measure	Location [Where]	Measurement [How]	Frequency [When]	Responsible Party [Who]
of Drainage system	ditches and culverts -Periodic inspection and removal of solid waste or topsoil in drains		flooding after heavy rains		
Water quality	-No dumping of liquid or solid waste into rivers, install sediment traps when working at river crossings	At river crossing and downstream of construction works	Water quality assessment using method used for baseline testing.	Weekly and when work is being done at river crossing	Environmental and Social Health and Safety Specialist. (Seek the help of CWSA)
Occupational Health and Safety	-Ensure proper safety measure, use of PPEs, protective clothing and implementation of health and safety plan and Health (COVID) protocols	Along the road corridor, on the construction site, at heavy equipment operation site.	Site inspection Visual observation, noise and dust measurements.	During construction	Environmental and Social Safeguard officer and contractor
Acquisition and trucking of sand and aggregate	-Sand and aggregate will be acquired in accordance with national regulations -Trucks will carry loads commensurate with their licensed capacity.	At loading sites and on the highway, at borrow pits and batching plants.	Visual observation; dust and noise measurements	During loading, transporting and unloading of aggregate and concrete construction	Contractor
Social Parameters					
Workers Satisfaction	-OHS rules being followed; safe work environment provided, appropriate	On the job site	Interviews with workers. Site observation by officer conducting monitoring	Quarterly	Social Safeguard Specialist

Parameter To Be Monitored	**Mitigation Measure**	**Location [Where]**	**Measurement [How]**	**Frequency [When]**	**Responsible Party [Who]**
	signs posted, medical services provided.				
Gender Based Violence and Sexual Harassment	-All workers are required to sign a code of conduct GBV discussed at orientation and at Toolbox talk	On the job site	Check project log for complaints/ grievance report	monthly	Social Safeguard Specialist
Occupational Health and Safety	-PPEs and safety clothes in use, signage appropriately placed.	All areas of work- on the jobsite, on the road	Visual observation, check project log, interview workers.	daily	Contractor Supervisory consultant Environmental and Social Specialists

6. PROJECT MANAGEMENT AND INSTITUTIONAL ARRANGEMENT

6.1 ESMP IMPLEMENTATION ROLES AND RESPONSIBILITIES

This section of the report provides a summary of the roles and responsibilities of the key actors involved in the implementation of this road restoration project (see **Table 6-1**). The role of the contractor is given a more detailed treatment due to his/her central role in execution.

The Ministry of Finance, Economic Planning & Information Technology representing the GoSVG is the client and is responsible for liaising with the community to organize community consultation(s) in conjunction with the Design and Supervision Consultant to ensure the community is kept up to date with the activities being undertaken as well as any notifications regarding modification of working hours, etc.

The Design and Supervision Consultant is responsible for the preparation and implementation of the

ESMP and the monitoring of the Contractor's implementation.

The contractor is responsible for complying with the ESMP and all contractual requirements while undertaking the works. The general responsibilities of the Contractor including standard environmental and social measures are described in the contract.

Table 7: Roles and Responsibilities

Organisation	Responsibility
Client	• Overseeing the whole process • ensuring the environmental and social risks are identified • Develop measures to manage the risks • Responsible for pubic and stakeholder consultation • Approval of changes to ESMP • Representing the project during community meetings • Reporting on environmental performance to the WB • Overall responsibility for the environmental performance of the project • Review of environmental management and monitoring reports • Review of ESMP performance and implementation of corrective actions or stop procedures in the event of breaches of the ESMP

Design and Supervision Consultant (DSC), Clerk of Work.	• Preparing the Procurement Documents to the Employer's satisfaction • ensure that all risks and issues identified in the ESMP are addressed by the Conditions of Contract • Oversight supervisory role of the implementation of the ESMP

Organisation	**Responsibility**
	during construction phase • Ensure effective communication and dissemination of the ESMP to contractors and sub-contractors. • Reporting any incidents or non-compliance with the ESMP • Monthly reports on E&S supervision as well as • Contractors' compliance with ESMP
Contractor	• Implementation of the mitigation measures identified in the ESMP. • Monthly reports on any E&S mitigation and monitoring issues; special reports will be made for exceptional circumstances. • Keeping records related to the environmental performance of works. • Ensuring that all E&S mitigation and monitoring requirements are known and implemented by its personnel and sub-contractors • To undertake self-checks of compliance, for undertaking emissions monitoring described in Section 5, and for establishing the systems, processes and methods to deliver the works in accordance with the Contract requirements, to the satisfaction of the Supervising Consultant. • Provide MSIPS on the following at bidding; o Establishment of the Contractor's Camp site o Establishing site boundaries and how site clearance will be retained within the site boundaries o Traffic Management arrangements during the works o Removal of existing road surface for disposal o Watercourse training/scour protection measures o Construction of watercourse crossings
Local authorities, civil society	• Supervision of E&S mitigation and monitoring actions

The Contractor will be responsible for preparing a Contractor's Environmental and Social Management Plan (C-ESMP) and for ensuring compliance with all relevant legislation, environmental controls, mitigation measures and management of social safeguards issues as set out in the ESIA and ESMP for this project. Before starting work, the Contractor is to present the C-ESMP with method statements outlining how the environmental impacts of the project will be managed.

Method statements are to be produced on the following topics:

- Site layout which includes the location of the site office, waste collection/storage workers station/common area, bathroom, change room and locker room/storage areas, drinking water station and muster points, construction material storage area, settling ponds, designated loading and offloading areas and designated heavy equipment parking area (for refuelling and maintenance repairs).
- Contractor's camp site.
- Heavy and construction equipment lists.
- Soil erosion prevention and sediment control.
- Landscaping/Biodiversity Management – establishing site boundaries and how site clearance will be retained within the site boundaries.
- Traffic management arrangement during works.
- Removal of existing road surface for disposal.
- Construction of watercourse crossings; watercourse training/scour protection measures.
- Waste Management Plan: To minimize the environmental impact of waste and ensure compliance with waste management laws and policies, this project will 1. Identify an onsite waste management area for temporary storage of solid waste. 2. Ensure that the area is secured. 3. Persons dealing with waste must be appropriately attired 4. Waste would be sorted to allow for reuse or recycle. 5. Only legally authorized persons will collect and or transport waste. 6. All solid waste will be taken to the land fill at Diamond.
- Liquid waste will drain into seepage pits constructed on site for this purpose. The contractor will negotiate with the Ministry of Health and the Environment and the SWMU for the disposal of any hazardous waste the project may produce.
- Water/Wastewater Management.
- Management of noise and vibration.
- Air quality/Dust nuisance monitoring/management.
- Dealing with chance archaeological finds.
- Traffic Management to protect workers, pedestrians, and motorists by minimising the risks associated with traffic movement. For this project speed limit would ten miles per hour in work areas. Traffic wardens will be assigned to control the entry and exit of vehicle unto the work area. Cones would be used to divide the road where construction and traffic are occurring simultaneously. No unauhorised vehicle would be allowed on these roads during work hours.
- Site Security.

- Infectious Disease Plan.
- Emergency Management Plan.
- Occupational Health and Safety Plan Further, the Contractor will:
- Liaise with sub-contractors and the supervisory consultant.
- Identify, from among staff, a Health and Safety Officer who will have overall responsibility for both ensuring and recording compliance with the Environmental and Social Management Plan.
- Ensure that all their staff members are familiar with the relevant parts of this ESMP.
- Document all incidents, near misses, accidents, injuries and complaints, and maintain a database of these events to be made available on request.
- Prepare and submit Weekly ESHS performance reports to PIU.

The Contractor's performance in complying with the Environmental and Social Management Plan will be supervised by the client (GoSVG) designate.

Project Implementation Unit (PIU). This unit is responsible for ensuring that the project is implemented in keeping with Donor approval and in keeping with detailed design, ESIA, ESMP and other project documentation.

More specifically the PIU will:

- Ensure implementation of the ESMP to mitigate environmental and social impacts.
- Ensure that Project complies with World Bank Environment and Social Framework and government laws and regulations.
- Ensure that environmental and social protection and mitigation measures in the ESMP are incorporated into the detailed designs and considered in the C-ESMP AND MSIPS.
- Ensure that requisite measures from the ESMP are incorporated into the bid and contract documents.
- Ensure that the necessary environmental license(s) and permits have been obtained prior toaward of civil works contracts.
- Assist GoSVG establish a Grievance Redress Mechanism, as described in Section 7.1 of this report, to receive and facilitate resolution of affected peoples' concerns, complaints, and grievances about the Project's environmental and social performance.
- Undertake monitor of the implementation of the ESMP.
- Prepare monthly environmental and social monitoring reports for submission to WB.

- Prepare quarterly reports of the ESMP implementation
- Based on the results of ESMP monitoring, identify environmentally corrective actions and prepare a corrective action plan, as necessary, for submission to the client and the WB.

Social Safeguard Team will be responsible for the following:

- Ensure each worker signs a Code of Conduct
- Ensure compliance with environmental and social statutory and contractual obligations and proper implementation of WB requirements including approved MSIPs.
- Design E&S training for employees to ensure that all staff (including contractor and subcontractor staff) have E&S responsibility awareness so that E&S requirements are implemented smoothly on site.
- Conduct field inspection to ensure compliance with ESIA requirements.
- Ensure adherence to and compliance with national laws and regulations relating to environmental and ecological sustainability,
- Determine pre-existing and potential environmental liabilities.
- Ensure adequacy of PPEs and their proper use.

6.2 REPORTING, REVIEW AND VERIFICATION PROCEDURES

Mitigation measure requirements, as well as implementation and verification procedures, are applicable during all phases of this project.

Implementation phases include:

- Pre-construction – Site preparation; clearing, hoarding and placement of signage.
- Construction – Excavation, building of bridge, retaining walls and surfacing the roadway.
- Operations – The use of the road during the defect liability period.

Pre-Construction Assessment: The Project Coordinator/Supervisory Consultant, the Civil Works Contractor and the project Environmental and Social Safeguard Officer shall survey the project site prior to construction to document the condition of all work areas especially sensitive areas like river crossing or area where is land slippage. The Project coordinator and the Health and Safety Officer will prepare a pre-construction report that documents the detailed status of each project work area prior to project activities; the report should include photographs.

Construction Assessment: The Project coordinator/Supervisory Consultant shall visit the sites as frequently as required but not less than twice per month to check progress and verify compliance at the site. Oversight agencies (Physical Planning and MTW) should also visit the site on an as needed basis at any time. A report documenting compliance with all contractual agreements and construction mitigation measures shall be prepared at the completion of each site visit.

Monitoring: Contractor and his Environmental and Social Safeguard officer would be on site on a daily basis to provide guidance and ensure compliance with all applicable mitigation measures for the work phase. A site log or journal should be kept by the contractor to document any activity or event that has the potential to negatively impact the environment.

Incidents Reporting: The Contractor and his ESSO are responsible for preparing and submitting incidents reports to the Project Management Team within 72 hours from discovery of the incident. The Health and Safety Officers shall maintain a complete project record of incidents associated with their contract scope of work. The record shall be regularly updated and included with monthly reports submitted to the Project Implementation Unit.

Corrective Action: Contractors are responsible for responding to and addressing notices of non-compliance in a timely manner and to the satisfaction of the Environmental and Social Safety Team. Contractors will be responsible for the rehabilitation costs and work effort associated with any environmental damage that may occur due to non-compliance with mitigation measures and environmental laws.

Supervision, ESMP Monitoring, and Reporting Supervision for compliance with environmental and social safeguards policies will be managed by the Project Coordinator/Supervisory Consultant who will conduct periodic inspections to assure environmental compliance. The Contractor also has responsibility for on-the-ground compliance with the contract clauses, recommendations, and mitigation measures.

The Environmental and Social Safeguards Officer will support environmental supervision, especially as regards inspection in the field as well as support the management of social risks and impacts, and implementation of social safeguards requirements.

Reviews of the ESMP shall be conducted during the project implementation to verify the effectiveness of the mitigation measures. The results of monitoring and measurement of performance indicators will be reported on a fortnightly basis during construction. This report will be reviewed by the Project Coordinator and PSC for deviations from expected outcomes, to ensure the effectiveness of the system and to identify and implement system improvements.

Performance that falls below expected levels will be addressed as soon as reasonably practicable and corrective actions will be identified and implemented where the ESMP is found to be deficient, where measures are lacking, and/or when changing circumstances are encountered. The ESSO and Project Coordinator shall record and report the results of these reviews and any other self-regulation processes to all concerned parties.

6.3 IMPLEMENTATION STRATEGIES

Pollution Prevention and Management

Pollution refers to both hazardous and non-hazardous chemical pollutants in solid, water, or air. The contractor is required to provide in their C-ESMP a plan for the efficient prevention, mitigation and monitoring of any pollution emanating from the project, and for proper waste management practices throughout the project life cycle.

Cultural Heritage

Procedures for Chance Finds: All archaeological evidence should be documented in accordance with national law and Good International Industry Practice (GIIP). If excavation is required, it would be carried out in accordance with national law and GIIP. In the event of chance finds, work in the area should stop and the area cordon off. Investigation of the chance find should be conducted by cultural heritage experts. Work in that area should not resume until the all clear is given by the National Trust.

Emergency Response

It is the responsibility of the Contractor to conduct a risk assessment and develop an on-site emergency response plan as well as an extreme weather management plan. Plans should contain a site map with muster point and emergency point clearly marked a list of emergency response agencies and personnel with telephone numbers or other means of communication. The list should include *inter alia*:

- The Royal St. Vincent and the Grenadines Police Force, inclusive of the Traffic Department, Fire Services and Coast Guard Units - Tel. 4566229
- Georgetown SMART Hospital -Tel. 458 6652
- The Milton Cato Memorial Hospital Emergency Unit - Tel. 4561185
- The St. Vincent and the Grenadines Electricity Services (VINLEC) - Tel. 456 1701
- Central Water and Sewerage Authority (CWSA) - Tel. 456 2946
- National Emergency Management Organization (NEMO) - Tel. 4562975

Occupational Health Safety (OHS)

Occupational Health and Safety (OHS) focuses on the well-being of project employees whilst at work or carrying out work duties. Satisfactory project execution requires compliance with all national and international OHS legislation that applies to the participating country governments and the World Bank with the objective of establishing safe systems, processes and working conditions for all workers, including the establishment of the Grievance Redress Mechanism (GRM) for workers.

The project should commit to safety considerations in conducting all its activities and that of contractors and sub-contractors. The project should develop and implement systems, processes, policies, and services that comply with national and international legal requirements, including industry standards and best practices concerning safety. The contractor shall provide a safe working environment for all employees, as far as is reasonably practicable, by the provision and maintenance of plants and systems of work that are safe and without risks to health.

Employees conduct is critical to the success of the OHS principles. It is the duty of all employees to take responsible care for the safety of him/herself and others who may be affected by their action or inaction. While employers are required to provide safe working environment for their employees, employees must play their part by using PPEs as appropriate, stop any activity that they consider dangerous to themselves or others and report unsafe practices or personal conduct to the employer and or the safeguard personnel.

Risk Assessment: Before taking possession of the project site the contractor should conduct a risk assessment of the site and job activities to develop their occupational health and safety management plan and the emergency response plan. This assessment should be done with the help of the Environmental and Social Safeguard specialists.

Worker Orientation: The Contractor should provide basic training/orientation for all worker and more detailed training for inexperienced and young recruits. Health and safety issues must be an integral part of the orientation; other elements should include sexual harassment, gender-based violence, the Grievance Redress Mechanism (GRM) and workers' rights.

Toolbox Safety Talk: The Contractor is required to conduct Safety Talks at least three (3) times per week to reinforce key safety procedures and involve workers in a discussion of safety and health procedures and project requirements. The contractor must provide the Client with a copy of the Toolbox Safety Talk

Plan. Each toolbox safety talk should be documented by having attendees sign an attendance roster, and these records should be provided when requested for safety inspections and audits.

Personal Protective Equipment

All workers must wear Personal Protective Equipment commensurate with the job type with standard set by the contractor.

Construction workers require **safety boots** (preferable steel tip). Wellingtons should be provided for persons working in areas with high moisture content.

Eye and Face Protection must be worn by persons involved in drilling, woodworking, chipping, grinding, cutting concrete and chiselling; persons working around heat sources where hot sparks could become airborne such as welding, casting, splashes or irritating mists or in conditions where there is exposure to high temperatures.

Head Protection is required for employees working in situations where injury may occur because of falling or flying objects.

Use of Hand Protection must consider not only the type of work the employee is doing, but also the conditions in which the employee is working. Gloves are used to prevent cuts, abrasions, burns and chemical exposures.

Hearing Protection must be provided for workers working in areas or in working conditions exposed to excessive noise over 80 dBA for more than four hours) or where an employee is exposed to continuous, intermittent or impact noise.

Respiratory Protection must be worn where employees may be exposed to airborne contaminants that cannot be controlled by ventilation. The contractor must provide adequate respiratory equipment and establish a code of practice for the equipment selection, care, use, maintenance and fitting.

6.4 LABOUR MANAGEMENT REQUIREMENTS

The Environmental and Social Standards (ESS), specifically ESS2- Labor and Working Conditions and the project's Labour Management Procedures (LMP) provisions will apply, where appropriate, to fill gaps between GoSVG laws and World Bank standards. The contractor will be required to maintain a register of all employees, their age, gender, hours of work, and wages. The project will engage all types of workers and national/expatriate consultants as per the labour provisions outlined in the Labour Management Procedures (LMP) and ESMP. The LMP is based on ESS2 and covers the management of worker relations

including, workers' specific Grievance Redress Mechanism, terms and conditions of employment, non-discrimination and equal opportunity, protection of the workforce, and prohibition.

OHS measures in the LMP should follow ESS2, ESMF and ESMP concerning documentation and reporting of occupational accidents, diseases, and incidents; emergency prevention, preparedness and response, and remedies adverse impacts such as occupational injuries, deaths, disability, and diseases.

The PSIPMU will ensure compliance with the clauses regarding non-tolerance of Gender Based Violence (GBV), sexual harassment and exploitation and abuse and sexual harassment (SEA/SH), and discrimination.

Project workers should be employed based on equal opportunity, and there should be no discrimination related to compensation, working conditions and terms of employment.

The Employment of Women, Young Persons, and Children Act (Part II/Article 8, 1938) prohibits the employment of children under the age of 14 years in any public or private industrial undertaking. Each worker must have a national identification and National Insurance card.

As part of the Labour Management Procedure (LMP), grievances that relate to project workers will be reported to the Social Specialist of the PIU and handled by a separate grievance redress mechanism from that of other project-related grievances. The grievance redress mechanism (GRM) will provide all direct workers and contracted workers (and, where relevant, their organizations) with channels to raise workplace concerns.

The Grievance Redress Mechanism (GRM) in the LMP also makes clear procedures for the handling of Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH) grievances. Complaints can be made in person, in writing, verbally over the phone, by fax, email or any other media. Concerns can be raised anonymously and/or to a person other than an immediate supervisor.

An appropriate receptacle (box) will be provided at the project site to receive grievances. This will be monitored by the Clerk of Works. Anyone who is affected by the project (real or perceived) can lodge a written complaint/grievance. All grievance received will be logged and treated as provided under the Grievance Redress Mechanism (GRM) in Section 7.1.

6.5 CAPACITY BUILDING

The contractor will make sure that all project staff and counterparts who are involved in project implementation receive both initial and ongoing environmental and social safeguard awareness and training sufficient to ensure they are familiar with their environmental and social safeguard responsibilities under the ESMP.

The contractor must identify the knowledge and skills necessary for implementation of the management systems and programs and identify training requirements for the organization's personnel. All persons responsible for undertaking work during the life of the project must be trained on the contents of the ESMP. The Independent Environmental Consultant is responsible for identifying the knowledge and skills necessary for the implementation of the ESMP and ensure that all site personnel have a basic level of environmental awareness training. All personnel whose work may cause a significant impact on the environment, will receive environmental training as follows:

Table 8: Areas for Capacity Building

Training	**Participants**
Environment & sustainability element of company- induction	All new starters
Environment & sustainability element of site – induction	All those working on site
Site Environmental Awareness	Site Safety Plus Delegated Duty Holders
Ecology and Biodiversity	Delegated Duty Holders (Persons clearing project site)
Waste Management	Delegated Duty Holders (Persons responsible for waste management)
Pollution Prevention and Emergency Spill Response	Delegated Duty Holders (Contractor, oversight officers)
Toolbox Talks on spillage, noise prevention, and other issues relevant to the works	All workers, HR will document the training

Table 9: Implementation Cost

ESMP Implementation Requirement	Assumptions	Cost Description	Cost
Site office	Creation of office space and sanitary; internet	Office space Sanitary facility Internet connect	$30,000
Community Engagement and Sensitization	Adequate notice given to farmers and other users of the roads	Notices and signs placed on property and in media. Consultation with farmers. Provision of light snack	$10,000
Signage for Project	Awareness and notification of project site	Construction of Various signage to be place where the project will commence and end	$5,000
Protective Gears for Workers and Visitors.	All workers are provided with PPEs appropriate to their task. PPEs are to be available for authorized visitors.	Procurement of Shoe Helmet ;Vest Gloves Mask where necessary Googles where necessary PPE for Visitors (10) Vest Helmet where necessary	@500 per worker Vest and helmet $1000.
Soil Conservation	Equipment to do fill and contain soil is on site. Cutting kept at minimum.	Plastic cover for soil containment	$2,000.
Noise Management	Noise abatement is enforced as required, equipment properly maintained and used		$0
Dust -Air Quality Management and Monitored	Fines kept covered and contained, vehicle serviced and maintained. Roadway wetting.	Water cost and vehicle provided for wetting	$ 6,000.
Waste Management Plan	Waste management plan developed and followed; waste disposed at	Haulage cost	$6,500

ESMP Implementation Requirement	Assumptions	Cost Description	Cost
	approved landfill using appropriate transport		

Traffic Management	ESMP and ESIA admonition followed	No accidents	$4,000
Water Quality Testing	ESIA and ESMP recommendations followed	Water sampling before and after work at river crossing	$12,000
Capacity Building	All persons employed received basic training and all reporting done in a timely manner	Training material, Orientation and ongoing training	$5,000
Monitoring on-site Compliance	Verify reports as per ESMPmonitoring requirement	Independent Environmental Consultant cost	$15,000
ESMF Implementation Cost			

7. STAKEHOLDER ENGAGEMENT

World Bank ESS10 emphasises the importance of open and transparent engagement between the client and project stakeholders as an essential element of good international practice. In this regard, local communities and stakeholders will be engaged in all phases of this project namely mobilisation, construction, and operation. The **VEEP** Communications Officer will spearhead the communications and awareness process with the support of the entire VEEP Implementation Unit Team.

All information materials will be provided in English and in a format readily understandable by local people. A range of strategies will be used to reach as many stakeholders as possible and to accommodate stakeholders with limited access to internet facilities. Project information will be shared in a manner that is accessible and culturally appropriate, taking into account specific needs of groups that may be differentially or disproportionately affected by the project.

The following principles will guide the preparation of communication and information materials:

- Clear messages using simple language.
- Openness, honesty, credibility, and trust in all communications
- Tailored to specific audiences.
- Content that is relevant to the target audience.
- Use of multiple methods to get information to some audiences.
- Designed for two-way communication, with mechanisms for feedback clearly integrated.
- Accessible to all – including persons with disabilities.

Materials will be prepared and disseminated on topics including the following:

- Construction activities at sites
- Hiring practices and employment opportunities
- Transport/traffic in the community and related health, safety, and environment issues
- Community health and safety awareness material
- Waste and environmental issues, particularly related to dust and noise.
- Grievance/complaints process and procedures.

Information dissemination and Feedback Mechanism: The following methods of engagement will be employed to disclose information to stakeholder groups:

- Written material, such as fact sheets, flyers and brochures
- Websites and social media
- Group and individual meetings
- Media releases
- Traditional media

An appropriate receptacle (box) will be provided at the project site to receive grievances. Anyone who is affected by the project (real or perceived) can lodge a written complaint/grievance. All grievance received will be logged and treated as provided under the Grievance Redress Mechanism (GRM) in Section 7.1.

7.1 GRIEVANCE REDRESS MECHANISM

Project implementation activities could result in disputes /disagreements between the Project implementers and persons/stakeholders who feel aggrieved especially in terms of access, compensation values and delay in the provision of the compensation. This section of the ESMP describes the process that will be used to deal with concerns and complaints received from affected stakeholders (individuals, groups or communities).

Once received, the concerns will be investigated, and decisions made whether they are genuine grievances to be dealt with under the Grievance Redress Mechanism. The Grievance Redress procedure will allow project affected people (PAPs) not to lose time and resources from going through lengthy national administrative and legal procedures, however persons are free to lodge a grievance under the national system.

7.2 GRIEVANCES

Grievances can result from real or perceived impacts of Project activities. The following criteria may be applied to distinguish grievances from other types of communication received from stakeholders:

- Reports about harmful impacts, disturbance, disruption, injury and damage caused by the Project activities, including contractor operations (such as noise, traffic, pollution, damage to common amenities and private assets, impacts on the natural environment and community health).
- Dissatisfaction with outcomes of the mitigation process.
- Dissatisfaction with some aspects of the Project recruitment and hire process, e.g., limited number of positions available to the local population, the contractor would be guided by the government quota system or if no system is in place a recommended 85% local and 15% regional and international; insufficient advertising of vacancies.
- Reports about misconduct by the Company's personnel, security or contractor workers.

The above list is not exhaustive and does not exclude other types of communications that the Company's staff may categorise as a grievance.

7.3SUBMITTING A GRIEVANCE

Affected persons can submit their complaints to the grievance redress committee (GRC) via email, telephone or letter using the below address.

Email:	**cenplan@svgcpd.com**
Telephone:	**784-457-1746**
By letter:	**The Project Grievance Officer -**
	Volcanic Eruption Emergency Project
	Ministry of Finance, Economic Planning and Information Technology
	Bay Street
	Kingstown

Acknowledging, Screening and Investigating a Grievance

All grievances will be acknowledged by telephone or in writing by the Project Coordinator within 48 hours of receipt. The complainant will be informed of the approximate timeline for addressing the complaint if it cannot be immediately addressed. The Project Coordinator will work with the safeguards team to ensure the speedy resolution of the grievance.

The Safeguard Team, will review the complaint, classifies it, and assigns a grievance officer. The complainant will be given a specific timeline for resolving the claim.

The safeguard team) should undertake the following process when reviewing the complaint:

a. Review all relevant correspondence.
b. Interview relevant staff responsible for managing the project.
c. Interview of contractors and consultants.
d. Conduct site visits.
e. Meet with the complainant.
f. Meet with any other project stakeholders, if necessary.
g. Records of all meetings must be kept.

If the Complaint is deemed justifiable, corrective action should be taken. If the Complaint is outside the scope of the safeguards team's mandate, the Complaint will be forwarded to the GRC for action. If the compliant is outside of the GRC mandate, GRC will forward the complaint to the legal authority and

provide support to the Complainant if deemed necessary.

If the Complaint is deemed unjustifiable, that is, complaint is not justified, or is generic, untruthful or mischievous in nature, no action may be required. The complaint will be notified and provided with the necessary evidence used in the formulation of the decision. A complainant has the right to appeal any decision made. The appeal must be submitted to Director of Economic Planning.

The Complainant must provide in writing, a basis for the appeal and submit all relevant supporting evidence. The Complainant will be notified in writing of the status of the complaint and the logical next steps.

8 APPENDICES

8.1ANNEX 1

Environmental and Social Screening Form

ENVIRONMENTAL AND SOCIAL SCREENING FORM

Environmental and Social Screening Checklist

8.1 Rehabilitation of the Waterloo #3 Road

Project Name: Volcanic Eruption Emergency Project

Project Number: P176943

Sub-project Name: Rehabilitation of the Waterloo #3 Road

Project Details in Brief: The Project Development Objective of the VEEP is to support Saint Vincent and the Grenadines to (i) provide short-term income support, (ii) improve the capacity of the government to prepare for and respond to emergencies, and (iii) build back better critical services in the wake of the La Soufriere volcano eruptions. The VEEP comprises three components that seek to achieve the development objectives.

Project location/s: Jennings, Saint Vincent and the Grenadines

Implementing Agency: VEEP PIU, Economic Planning Division, Ministry of Finance, Economic Planning, and Information Technology (MoFEPIT)

Section A. Project Details		
Sl. no	Components	Details
1	Subproject description	Rehabilitation of the Waterloo #3 Road
2	Details of Alignment / Components (main components including construction activities) of subproject	Site Clearance Demolition of existing road roadway pavement and masonry structures, transportation and disposal of material at authorised facility. Alignment and excavation for road and drainage construction. Replacement of subbase material and installation of Asphalt wearing surface. Installation of a 2ft gravel shoulder on one side of the roadway and construction of concrete slipper drains on the opposite side of the roadway. Average road width – 12ft. Installation of Laybys where possible and swale where necessary.
3	Location of the Sub-project Sites & Current Land use (Provide information for all sites involved in the sub-project), any historic land use (related to heritage, or contamination) Site Survey No:/s (with ownership),	Rabacca, St. Vincent and Grenadines The Waterloo #3 Road provides access to the agricultural lands in the XXX area. This road is 0.53 km in length, commencing from the Windward highway at Rabacca and extends past the Caribbean Agricultural Research and Development Institute office (CARDI) and the North Windward Agricultural and Livestock Station into the mountain giving access to approximately 50 plots of both cultivated and cultivable lands. This asphalt road way done under the Project. Presently the road is a state of disrepair/degradation due to insufficient maintenance. It was

	Geographical co-ordinates of the site	airmarked for repairs since the 2014 due to its condition greatly deteriorating after extreme weather events in 2011 and 2012 and 2013. Site Survey No: Geographical Coordinates: 13.3100 N, 61.1200 W

Section B. Proposed Resource Use				
Sl. no	Proposed Resources	Area/ Quantity	Unit	Details
(i).	Land Area proposed to be used: Location wise (in sq km / sq m)			N/A
(ii).	Estimated energy consumption for the project activities – Source wise			N/A
(iii).	Estimated usage of water quantity for the project: Ground Water and Surface water?			N/A

Section C. Baseline Environmental Conditions				
Sl. no	Environmental Aspects	Yes	No	Details
1	Is the project site located on or adjacent to any of the following (Provide information for all sites and alignment of the project components/subcomponents, associated activities; mention distance to these features in meters/kilometres)			
i)	Critically Vulnerable Coastal Areas, Eco-sensitive Areas		X	
ii)	Cultural Heritage site, Protected monuments		X	
iii)	Natural Forests / Protected Areas Is the project in an eco- sensitive or adjoining an eco-sensitive area? If Yes, provide details.		X	
iv)	Any other Wetlands/ Mangrove/ Estuarine Region?		X	
v)	Any Natural Habitat areas, areas with natural features?		X	
vi)	Any other Sensitive Environmental Components?		X	
vii)	Any Residences, schools, hospitals, sensitive receptors?		X	

viii)	Any culturally – socially important paths, areas/religious occupancies, burial grounds, tourist or pilgrim congregation areas, borders, etc?		X	
ix)	Any Drinking water source, upstream and downstream uses of rivers, etc?		X	
x)	Any Low-lying areas prone to flooding/areas of Tidal Influence?		X	
xi)	Details of Surface water quality at intake point			N/A
xii)	Any areas affected by other disasters?	X		This area may be affected by volcanic activity, earth tremors, hurricanes, heavy rains, drought, high wind events that may affect the entire island.
2	Is the site in Critical / Over Exploited condition?		X	
4	Is the area disaster-prone? If yes; list all disaster zone categories applicable	X		The risk of volcanic activity, earth tremors and meteorological events in this area, however, is no different most of the country and surrounding areas
5	Describe the soil and vegetation on site			Vegetation is mixed, fruit trees, grasses, shrubs and bushes, root crops, other trees. Loamy mix soil with volcanic ash deposits.
6	Is the site area and condition suitable for proposed development?	X		
7	Describe existing pollution or degradation in the site(s)			N/A
8	Any other remark on baseline condition?		X	

Section D. Anticipated Environmental Impacts: Impacts on Land, Geology and Soils						
Sl. no	Impacts	No	Yes/ May create	Expected Risk Rating	Details	Risk Rating
9	Will the proposed project cause the following on Land / Soil?					
i)	Impact on Surrounding Environmental Conditions including Occupation on Low lying lands/flood plains	X				
ii)	Substantial removal of Top Soil (mention area in sqm)	X				
iii)	Any degradation of land / ecosystems expected due to the project?	X				

iv)	Loss or impacts on Cultural/heritage properties	X				
v)	Does the project activity involve cutting and filling/ blasting etc?		X	Low	There is no blasting. Minimal cutting of soil to accommodate alignment of the roadway is anticipated.	Low
vi)	Will the project cause physical changes in the project area (e.g., changes to the topography) due to earth filling, excavation, earthwork or any other activity?	X				
vii)	Will the project involve any quarrying/ mining etc?	X				
viii	Will the project / any of its components contaminate or pollute the Land?		X	Low	Minimal possible dust pollution, noise pollution, petrochemical spills, cement contaminated runoff into the river that cuts across and runs adjacent to the site in some areas.	Low
Section E. Impacts on Water Environment						
Sl. no	Impacts	No	Yes/ May create	Expected Risk Rating	Details	Risk Rating
10	Will the subproject or its components cause any of the following impact on Water sources (Quantity or Quality):					
i)	Will the activities proposed at the site(s) impact water quality (surface or underground) and water resource availability and use? Will this sub-project involve the dredging of water bodies, sea, canals, etc.	X				
ii)	Impacts on Water Resources	X				
iii)	Pollution of Water bodies/ground water nearby or downstream	X				

iv)	Will the project affect the River /channel flow pattern, stream pattern or any other irrigation canal?	X				
v)	Will the project result in stagnation of water flow or pondage or weed growth	X				
Section F. Impacts on Biodiversity and Host Communities						
Sl. no	Impacts	No	Yes/ May create	Expected Risk Rating	Details	Risk Rating
11	Will the subproject or its components cause any of the following impacts on Biodiversity or the neighbourhood					
i)	Will the project necessitates cutting of Trees / Loss of Vegetation		X	Low	There will mainly be possible pruning of trees. There will be minimal cutting of trees and clearing of vegetation to facilitate the construction works. Areas that require stabilisation should be remedied before closeout.	Low
ii)	Will the project result in Health & Safety Risks in the neighbourhood including the release of toxic gases, accident risks		X	Low	Exhaust fumes from the use of construction equipment used on site, trucking and generators and can result in the release of fumes. Devices will not remain idle when not in use.	Low
iii)	Potential risk of habitat fragmentation due to the clearing activities? (e.g. Hindrance to the local biodiversity like disturbing the migratory path of animals/ birds etc.)	X				
iv)	Potential Noise and Light Pollution or disturbance to surrounding habitats/communities	X				

v)	Potential disruption to common property, accessibility, traffic disruptions, conflicts or disruption to the local community within the subproject area?		X	Low to Moderate	There is minimal traffic in this area which consists mainly of farmers and Ministry of Agriculture workers. The impact to traffic by construction work, heavy equipment being transported to and from the site and its usage on site, trucks accessing and leaving the site, being loaded and unloaded may impact free flow of traffic during construction. Traffic management plan will be required, and possible alternative route sought.	Low to Moderate
Section G. Impacts due to Storage and Wastes: Pollution and Hazards						
Sl. no	Impacts	No	Yes/ May create	Expected Risk Rating	Details	Risk Rating
12	Will the subproject or its components cause any impact due to storage of materials, wastes or pollution due to releases during various project activities					
i)	Will the project use or store dangerous substances (e.g., large quantities of hazardous chemicals/ materials like Chlorine, Diesel, Petroleum products; any other?		X	Low	High possibility of the storage of fuel for construction equipment being used on site for the works and hydraulic fluid. This should be in relatively small amounts.	Low
ii)	Will the project produce solid or liquid wastes; including construction/demolition wastes (including dredging, de-weeding wastes, muck/silt, dust); polluted liquids?		X	Low to Moderate	The project will produce liquid waste such as grey water from hand washing stations, residual water from mixing concrete and regular construction waste such as empty cement bags, damaged material, excess/scrap construction material. Proper waste disposal will minimize the pollution.	Low
iii)	Will the project cause or increase air pollution or odour nuisance?		X	Low	Minimal air pollution from trucking and construction equipment usage, dust from aggregate and cement storage	Low

					and during use for mixing. The area is generally windy and allows for quick dispersal of fumes. Devices will not remain idle when not in use to minimise this	
iv)	Will the project generate or increase noise levels which will impact surrounding biodiversity or communities?		X	Low	There are very few full-time domestic dwellings, if any, in the area. Work on site will be conducted Monday - Friday between 7:00 a.m. and 5:00 p.m. to minimize disturbance. It is not expected that noise levels will, to any great extent, disturb biodiversity in the area. Work will not be conducted between dusk and dawn hours and so will not impact diurnal animals that have their homes around the work site or animals tied nearby to graze.	Low
v)	Will the project generate or increase visual blight or light pollution?	X				
vi)	Will the project cause water pollution? (of waterbodies/ groundwater)?	X				
vii)	Will the project involve dangerous construction activities which may be a safety concern to workers/ host communities	X				
viii	Is there a potential for release of toxic gases or accident risks (e.g. potential fire outbreaks)		X	Low	Storage of petrochemicals on site may pose a fire risk.	Low
13	Describe any other features of the project that could influence the ambient environment				N/A	

Section H. Suggested Environmental Enhancement Measures				
Sl. no	Components	Yes	No	Details

14	Has the subproject design considered the following enhancement measures?			
i)	Energy conservation measures/ energy recovery options incorporated in subproject design		X	
ii)	Considered waste minimization or waste reuse/recycle options	X		Efforts to minimize construction waste and reuse where possible should be included in the environmental management plan for implementation by the contractor.
iii)	Rainwater harvesting, water recycling and other water resource enhancement measures		X	
iv)	Considerations for extreme events, drought, flood, other natural disasters	X		There should be measures included under disaster management component of the environmental management plan for implementation by the contractor
vi)	NOC for water withdrawal from surface water source			N/A
vii)	Mining Permit (for dredging)			N/A
viii)	NOC for transportation and storage of diesel, oil and lubricants, etc.			N/A
ix)	Others (Mention)			N/A

Section I. Land Use, Resettlement, and/or Land Acquisition						
Sl. no	Impacts	No	Yes/ May create	Expected Risk Rating	Details	Risk Rating
1	Does the project involve acquisition of private land?	X				
2	Alienation of any type of Government land including that owned by Urban Local Body?	X				

3	Clearance of encroachment from Government/ Local body Land?					
4	Clearance of squatters/hawkers from Government/ Local Body Land?	X				
5	Number of structures, both authorized and/or unauthorized to be acquired/ cleared/	X				
6	Number of households to be displaced?	X				
7	Village common properties to be alienated Pasture Land (acres) Acquisition / burial ground and others specify?	X				
8	Existing land uses on and around the project area (e.g., community facilities, agriculture, tourism, private property) will be affected?	X				
9	Will the project result in construction workers or other people moving into or having access to the area (for a long-time period and in large numbers compared to permanent residents)?		May		Other farmers are likely to access their lands	Low
10	Are financial compensation measures expected to be needed?	X				

Section J. Loss of Crops, Fruit Trees, Household Infrastructure and livelihood						
Sl. no	Impacts	No	Yes/ May create	Expected Risk Rating	Details	Risk Rating

11	Will the project result in the permanent or temporary loss of the following?					
11.1	Crops?	X				
11.2	Fruit trees? Specify with numbers	X				
11.3	Petty Shops	X				
11.4	Vegetable/Fish/Meat vending	X				
11.5	Cycle repair shop	X				
11.6	Garage	X				
11.7	Tea stalls	X				
11.8	Grazing	X				
11.9	Loss of access to forest produce	X				
	Any others - specify					

Section K. Welfare, Employment, and Gender				
Sl.no	Components	Yes	No	Details
12	Is the project likely to provide local employment opportunities, including employment opportunities for women?	X		
13	Is the project being planned with sufficient attention to local poverty alleviation objectives?	X		

14	Is the project being designed with sufficient local participation (including the participation of women) in the planning, design, and implementation process?	X				
Section L. Historical, Archaeological, or Cultural Heritage Sites						
Sl. no	Impacts	No	Yes/ May create	Expected Risk Rating	Details	Risk Rating
15	Historical heritage site(s) require excavation near the same?	X				
16	Archaeological heritage site(s) require excavation near the same?	X				
17	Cultural heritage site(s) require excavation near the same?	X				
18	Graves or sacred locations require excavations near the same?	X				
Section M. Tribal Population/Indigenous People						
Sl. no	Impacts	No	Yes/ May create	Expected Risk Rating	Details	Risk Rating
19	Does this project involve acquisition of any land belonging to Tribal people?	X				
Section N. Beneficiaries						
Sl. no	Components	Approx. no.			Details	
20	Population proposed to be benefitted by the proposed project	Direct 50 326 beneficiaries			Farmers / Workers At the Livestock station Workers at CARDI Surrounding community	

21	No. of Females proposed to be benefitted by the proposed project	Direct 15 180 males 146 females	Workers & farmers
22	Vulnerable households /population to be benefitted	106 households	
23	No. of Families to be benefitted	106 households	

Project Categorization and Need for Environmental and Social Instruments, Oversight

Project Category	X Low □ Moderate □ Substantial □ High
Key Reasons	The works will have minimal impacts on the environment.
Environmental and Social Instruments Required	□ Detailed ESIA and ESMP □ ESA □ RAP X Site-specific ESMP

Status	Agency / Official	Name, Signature with Date and Seal
Prepared by	Environmental Specialist	Sharika Mandeville
	Environmental Expert in charge	

Checked and Categorized as (low, moderate, substantial, high) by	PMU	
	Environmental Specialist	
Reviewed & accepted by	PMU	
	Environmental Specialist	

This Screening sheet must be completed for each of the proposed subproject and forwarded to the Environment and Social Specialist and in Respective PMU along with the following enclosures.

Enclosures:

Provide maps with the geographical location of the project;

An appropriately scaled map clearly showing the project area and project sites with land use, existing buildings, infrastructure, vegetation, adjacent land use, utility lines, access roads and any planned construction, and

Any other information to describe the project, locations and possible impact as required.

Land details for the project sites, location, survey numbers,

Extent available and required, land use classification, current use of the site,

Land ownership, alienation/acquisition status, as required along with a certificate giving availability of sites required for the project by the borrower

Project Categorization and Need for Standards Instruments, Oversight

Project Category	□ Low □ Moderate □ Substantial □ High

Key Reasons	
Environmental and Social Instruments Required	□ Detailed ESIA and ESMP □ ESA □ RAP □ Site-specific ESMP

Status	Agency / Official	Name, Signature with Date and Seal
Prepared by	Social Specialist	
	Social Expert / in – charge	
Checked and Categorized as (low, moderate, substantial, high) by	PMU	
	Social Specialist	
Reviewed & accepted by	NPMU	
	Social Specialist	

Environmental and Social Screening Checklist

8.2 Rehabilitation of the Jennings Road

Project Name: Volcanic Eruption Emergency Project
Project Number: P176943
Sub-project Name: Rehabilitation of the Jennings Road
Project Details in Brief: The Project Development Objective of the VEEP is to support Saint Vincent and the Grenadines to (i) provide short-term income support, (ii) improve the capacity of the government to prepare for and respond to emergencies, and (iii) build back better critical services in the wake of the La Soufriere volcano eruptions. The VEEP comprises three components that seek to achieve the development objectives.
Project location/s: Jennings, Saint Vincent and the Grenadines
Implementing Agency: VEEP PIU, Economic Planning Division, Ministry of Finance, Economic Planning, and Information Technology (MoFEPIT)

Section A. Project Details		
Sl. No	Components	Details
1	Subproject description	Rehabilitation of the Jennings Mountain Road
2	Details of Alignment / Components (main components including construction activities) of subproject	Site clearance Demolition of existing roadway pavement and masonry structures, transportation and disposal of material at an authorised facility. Layout, excavation and earthworks for road and drainage construction; Construction of reinforced concrete pavement roadway Construction of reinforced retaining walls, reinforced concrete river crossings, reinforced box drains, culverts and kerb and slipper drains as required. Installation of laybys where possible and swale drains where necessary.
3	Location of the Sub-project Sites & Current Land use (Provide information for all sites involved in the sub-project), any historic land use (related to heritage, or contamination) Site Survey No:/s (with ownership),	Jennings, St. Vincent and Grenadines Jennings Mountain forms part of the Georgetown watershed. The Jennings Mountain Road provides access to the lands in the Jennings Valley. This road is 1.1 km in length, commencing from the northern end of the Bridge along the Windward highway at Mt. Young and extends to the Central Water and Sewerage Authority Jennings Water intake, catchment and treatment plant. This roadway is partly concrete, partly asphalt road way, with 4 concrete fords river crossings. Presently the road is in a state of disrepair/degradation due to insufficient maintenance. It was earmarked

	Geographical co-ordinates of the site	for repairs in 2014 due to its condition greatly deteriorating after extreme weather events in 2011 and 2012 and 2013. Land use in the area is mixed. The majority of the lands in the valley are farmlands, approximately 20 farms, that are cultivated with root crops and cocoa. There are a few domestic dwellings, mainly used as recreational homes, areas cultivable lands and Eco-Tourism sites such as the Congo Valley Recreational Area. Site Survey No: Geographical Coordinates: 13.2665 N, 61.1250 W

Section B. Proposed Resource Use				
Sl. No	Proposed Resources	Area/ Quantity	Unit	Details
(i).	Land Area proposed to be used: Location wise (in sq km / sq m)			N/A
(ii).	Estimated energy consumption for the project activities – Source wise			N/A
(iii).	Estimated usage of water quantity for the project: Groundwater and Surface water?			N/A

Section C. Baseline Environmental Conditions				
Sl. No	Environmental Aspects	Yes	No	Details
1	Is the project site located on or adjacent to any of the following (Provide information for all sites and alignment of the project components/subcomponents, associated activities; mention distance to these features in meters/kilometres)			
i)	Critically Vulnerable Coastal Areas, Eco-sensitive Areas	X		In some areas, the project site crosses or runs adjacent to a river.
ii)	Cultural Heritage site, Protected monuments		X	

Section C. Baseline Environmental Conditions

Sl. No	Environmental Aspects	Yes	No	Details
iii)	Natural Forests / Protected Areas Is the project in an eco- sensitive or adjoining an eco-sensitive area? If Yes, provide details.		X	
iv)	Any other Wetlands/ Mangrove/ Estuarine Region?		X	
v)	Any Natural Habitat areas, areas with natural features?		X	
vi)	Any other Sensitive Environmental Components?		X	
vii)	Any Residences, schools, hospitals, sensitive receptors?		X	
viii)	Any culturally – socially important paths, areas/religious occupancies, burial grounds, tourist or pilgrim congregation areas, borders, etc?		X	
ix)	Any Drinking water source, upstream and downstream uses of rivers, etc?	X		The CWSA intake, catchment and water treatment is located at the start of the site upstream of the site Jennings River.
x)	Any Low-lying areas prone to flooding/areas of Tidal Influence?	X		This area has been prone to flooding during extreme meteorological events.
xi)	Details of Surface water quality at intake point (Wet Season (WS) and Dry Season (DS) averages)			Average Physical parameters: Temperature (°C): 23.5 (DS). 24.3 (WS) Electrical Conductivity (µs/cm): 136 (DS). 133(WS) pH (pH): 8.305 (DS). 8.250 (WS) Turbidity (NTU): 3.986 (DS). 6.007 (WS) Salinity (Sal): 0.068 (DS). 0,067 (WS) Average Chemical Parameters: Chloride (ppm): 62.68 (DS). 37.58 (WS) Nitrate (ppm): 6.231 (DS). 8.847 (WS) Potassium (ppm): 3.875 (DS). 0.728 (WS) Total Dissolved Solids (g/l): 0.095 (DS). 0.091 (WS) Total Suspended Solids (g/l): 0.013 (DS). 0.017 (WS)
xii)	Any areas affected by other disasters?	X		This area may be affected by volcanic activity, earth tremors, hurricanes, heavy rains, flood,

				drought, high wind events that may affect the entire island.
2	Is the site in Critical / Over Exploited condition?		X	
4	Is the area disaster-prone? If yes; list all disaster zone categories applicable	X		The risk of volcanic activity, earth tremors and meteorological events in this area, however, is no different most of the country and surrounding areas
5	Describe the soil and vegetation on site			Vegetation is mixed, fruit trees, grasses, shrubs and bushes, root crops, cocoa trees. Loamy-mix soil with volcanic ash deposits.
6	Is the site area and condition suitable for proposed development?	X		
7	Describe existing pollution or degradation in the site(s)			N/A
8	Any other remarks on baseline conditions?		X	

Section D. Anticipated Environmental Impacts: Impacts on Land, Geology and Soils						
Sl. No	Impacts	No	Yes/ May create	Expected Risk Rating	Details	Risk Rating
9	Will the proposed project cause the following on Land / Soil?					
i)	Impact on Surrounding Environmental Conditions including Occupation on Low lying lands/flood plains	X				
ii)	Substantial removal of Top Soil (mention area in sqm)	X				
iii)	Any degradation of land / ecosystems expected due to the project?	X				
iv)	Loss or impacts on Cultural/heritage properties	X				
v)	Does the project activity involve cutting and filling/ blasting etc?		X	Low	There is no blasting. Minimal cutting of soil to	Low

					accommodate alignment of the roadway is anticipated.	
vi)	Will the project cause physical changes in the project area (e.g., changes to the topography) due to earth filling, excavation, earthwork or any other activity?	X				
vii)	Will the project involve any quarrying/ mining etc?	X				
viii	Will the project / any of its components contaminate or pollute the Land?		X	Low	Minimal possible dust pollution, noise pollution, petrochemical spills, cement contaminated runoff into the river that cuts across and runs adjacent to the site in some areas.	Low
Section E. Impacts on Water Environment						
Sl. no	Impacts	No	Yes/ May create	Expected Risk Rating	Details	Risk Rating
10	Will the subproject or its components cause any of the following impact on Water sources (Quantity or Quality):					
i)	Will the activities proposed at the site(s) impact water quality (surface or underground) and water resource availability and use? Will this sub-project involve the dredging of water bodies, sea, canals, etc.		X	Low	There is no dredging. Run off from the site will outfall into the river into the river that cuts across and runs adjacent to the site in some areas.	Low

ii)	Impacts on Water Resources		X	Low	All necessary precautions should be taken to minimize impacts.	Low
iii)	Pollution of Water bodies/ground water nearby or downstream		X	Low	Runoff from works can enter the river and eventually the Black Point Bay downstream of the site.	
iv)	Will the project affect the river /channel flow pattern, stream pattern or any other irrigation canal?		X		During the rehabilitation of the fords the water will be sectionally diverted	
v)	Will the project result in stagnation of water flow or pondage or weed growth	X				
Section F. Impacts on Biodiversity and Host Communities						
Sl. no	Impacts	No	Yes/ May create	Expected Risk Rating	Details	Risk Rating
11	Will the subproject or its components cause any of the following impacts on Biodiversity or the neighbourhood					
i)	Will the project necessitates cutting of Trees / Loss of Vegetation		X	Low	There will be minimal cutting of trees and clearing of vegetation to facilitate the construction works. Areas that require stabilisation should be remedied before closeout.	Low
ii)	Will the project result in Health & Safety Risks in the neighbourhood including the release of toxic gases, accident risks		X	Low	Exhaust fumes from the use of construction equipment used on site, trucking and generators and can result in the release of fumes. Devices will not remain idle when not in use.	Low
iii)	Potential risk of habitat fragmentation due to	X				

	the clearing activities? (e.g. Hindrance to the local biodiversity like disturbing the migratory path of animals/ birds etc.)					
iv)	Potential Noise and Light Pollution or disturbance to surrounding habitats/communities	X				
v)	Potential disruption to common property, accessibility, traffic disruptions, conflicts or disruption to the local community within the subproject area?		X	Low to Moderate	There is minimal traffic in this area, mainly CWSA workers, farmers and Eco Tourists. The impact to traffic by construction work, heavy equipment being transported to and from the site and its usage on site, trucks accessing and leaving the site, being loaded and unloaded may impact free flow of traffic during construction. There are, in most areas, no alternative access. Traffic management plan will be required.	Low to Moderate
Section G. Impacts due to Storage and Wastes: Pollution and Hazards						
Sl. no	Impacts	No	Yes/ May create	Expected Risk Rating	Details	Risk Rating
12	Will the subproject or its components cause any impact due to storage of materials, wastes or pollution due to releases during various project activities					

i)	Will the project use or store dangerous substances (e.g., large quantities of hazardous chemicals/ materials like Chlorine, Diesel, Petroleum products; any other?		X	Low	High possibility of the storage of fuel for construction equipment being used on site for the works and hydraulic fluid. This should be in relatively small amounts.	Low
ii)	Will the project produce solid or liquid wastes; including construction/demolition wastes (including dredging, de-weeding wastes, muck/silt, dust); polluted liquids?		X	Low to Moderate	The project will produce liquid waste such as grey water from hand washing stations, residual water from mixing concrete and regular construction waste such as empty cement bags, damaged material, excess/scrap construction material. Proper waste disposal will minimize the pollution.	Low
iii)	Will the project cause or increase air pollution or odour nuisance?		X	Low	Minimal air pollution from trucking and construction equipment usage, dust from aggregate and cement storage and during use for mixing. The area is generally windy and allows for quick dispersal of fumes. Devices will remain idle when not in use to minimise this.	Low
iv)	Will the project generate or increase noise levels which will impact surrounding biodiversity or communities?		X	Low to Moderate	There are very few full-time domestic dwellings, if any, in the area. Work on site will be conducted Monday - Friday between 7:00 a.m. and 5:00 p.m. to minimize disturbance. It is not expected that noise levels will, to any great extent, disturb biodiversity in the area. Work will not be conducted between dusk	Low

					and dawn hours and so will not impact diurnal animals that have their homes around the work site or animals tied nearby to graze.	
v)	Will the project generate or increase visual blight or light pollution?	X				
vi)	Will the project cause water pollution? (of waterbodies/ groundwater)?		X	Low to Moderate	Run off from the site will outfall into the river into the river that cuts across and runs adjacent to the site in some areas.	Low
vii)	Will the project involve dangerous construction activities which may be a safety concern to workers/ host communities	X				
viii	Is there a potential for release of toxic gases or accident risks (e.g. potential fire outbreaks)		X	Low	Storage of petrochemicals on site may pose a fire risk.	Low
13	Describe any other features of the project that could influence the ambient environment				N/A	

Section H. Suggested Environmental Enhancement Measures				
Sl. no	Components	Yes	No	Details
14	Has the subproject design considered the following enhancement measures?			
i)	Energy conservation measures/ energy recovery options incorporated in subproject design		X	

ii)	Considered waste minimization or waste reuse/recycle options	X		Efforts to minimize construction waste and reuse where possible should be included in the environmental management plan for implementation by the contractor.
iii)	Rainwater harvesting, water recycling and other water resource enhancement measures		X	
iv)	Considerations for extreme events, drought, flood, other natural disasters	X		There should be measures included under the disaster management component of the environmental management plan for implementation by the contractor.
vi)	NOC for water withdrawal from surface water source			N/A
vii)	Mining Permit (for dredging)			N/A
viii)	NOC for transportation and storage of diesel, oil and lubricants, etc.			N/A
ix)	Others (Mention)			N/A

Section I. Land Use, Resettlement, and/or Land Acquisition						
Sl. no	Impacts	No	Yes/ May create	Expected Risk Rating	Details	Risk Rating
1	Does the project involve acquisition of private land?		X		There may be the need for land acquisition along the roadway. this would be dependant on the need for the stabilization and widening of some areas.	
2	Alienation of any type of Government land including that owned by Urban Local Body?	X				

3	Clearance of encroachment from Government/ Local body Land?	X				
4	Clearance of squatters/hawkers from Government/ Local Body Land?	X				
5	Number of structures, both authorized and/or unauthorized to be acquired/ cleared/	X			None	
6	Number of households to be displaced?	X				
7	Village common properties to be alienated Pasture Land (acres) Acquisition / burial ground and others specify?	X				
8	Existing land uses on and around the project area (e.g., community facilities, agriculture, tourism, private property) will be affected?		X		The properties along the project site (roadway) may be affected by partial restricted access. There is no other access to the area and the nature of the works on the road would cause restrictions to properties while work is being undertaken.	
9	Will the project result in construction workers or other people moving into or having access to the area (for a long-time period and in large numbers compared to permanent residents)?	X				

10	Are financial compensation measures expected to be needed?		X			
Section J. Loss of Crops, Fruit Trees, Household Infrastructure and livelihood						
Sl. no	Impacts	No	Yes/ May create	Expected Risk Rating	Details	Risk Rating
11	Will the project result in the permanent or temporary loss of the following?					
11.1	Crops?	X				
11.2	Fruit trees? Specify with numbers	X				
11.3	Petty Shops	X				
11.4	Vegetable/Fish/Meat vending	X				
11.5	Cycle repair shop	X				
11.6	Garage	X				
11.7	Tea stalls	X				
11.8	Grazing	X				
11.9	Loss of access to forest produce	X				
	Any others - specify					
Section K. Welfare, Employment, and Gender						
Sl.no	Components	Yes	No	Details		
12	Is the project likely to provide local employment opportunities, including employment opportunities for women?	X				

13	Is the project being planned with sufficient attention to local poverty alleviation objectives?	X				
14	Is the project being designed with sufficient local participation (including the participation of women) in the planning, design, and implementation process?	X				
Section L. Historical, Archaeological, or Cultural Heritage Sites						
Sl. no	Impacts	No	Yes/ May create	Expected Risk Rating	Details	Risk Rating
15	Historical heritage site(s) require excavation near the same?	X				
16	Archaeological heritage site(s) require excavation near the same?	X				
17	Cultural heritage site(s) require excavation near the same?	X				
18	Graves or sacred locations require excavations near the same?	X				
Section M. Tribal Population/Indigenous People						
Sl. no	Impacts	No	Yes/ May create	Expected Risk Rating	Details	Risk Rating
19	Does this project involve acquisition of any land	X				

	belonging to Tribal people?					

Section N. Beneficiaries			
Sl. no	Components	Approx. no.	Details
20	Population proposed to be benefitted by the proposed project	110,872	The project creates access to one of the country's main water supply
21	No. of Females proposed to be benefitted by the proposed project	53,637	
22	Vulnerable households /population to be benefitted	48.2%	
23	No. of Families to be benefitted	TBD	

Project Categorization and Need for Environmental and Social Instruments, Oversight

Project Category	X Low □ Moderate □ Substantial □ High
Key Reasons	The works will have minimal impacts on the environment.
Environmental and Social Instruments Required	□ Detailed ESIA and ESMP □ ESA □ RAP X Site-specific ESMP

Status	Agency / Official	Name, Signature with Date and Seal
Prepared by	Environmental Specialist	Sharika Mandeville
	Environmental Expert in charge	

Checked and Categorized as (low, moderate, substantial, high) by	PMU	
	Environmental Specialist	
Reviewed & accepted by	PMU	
	Environmental Specialist	

This Screening sheet must be completed for each of the proposed subproject and forwarded to the Environment and Social Specialist and in Respective PMU along with the following enclosures.

Enclosures:

Provide maps with the geographical location of the project;

An appropriately scaled map clearly showing the project area and project sites with land use, existing buildings, infrastructure, vegetation, adjacent land use, utility lines, access roads and any planned construction, and

Any other information to describe the project, locations and possible impact as required.

Land details for the project sites, location, survey numbers,

Extent available and required, land use classification, current use of the site,

Land ownership, alienation/acquisition status, as required along with a certificate giving availability of sites required for the project by the borrower.

Project Categorization and Need for Standards Instruments, Oversight

Project Category	□ Low □ Moderate □ Substantial □ High
Key Reasons	
Environmental and Social Instruments Required	□ Detailed ESIA and ESMP □ ESA □ RAP □ Site-specific ESMP

Status	Agency / Official	Name, Signature with Date and Seal
Prepared by	Social Specialist	
	Social Expert / in – charge	
Checked and Categorized as (low, moderate, substantial, high) by	PMU	
	Social Specialist	
Reviewed & accepted by	NPMU	
	Social Specialist	

8.2 ANNEX 2

Site Photographs

Site Photographs

Sections of Jennings Mountain Road

River Crossing on Jennings Mountain Road. CWSA building top left.

Section of Jennings Mountain Road showing adjacent farms

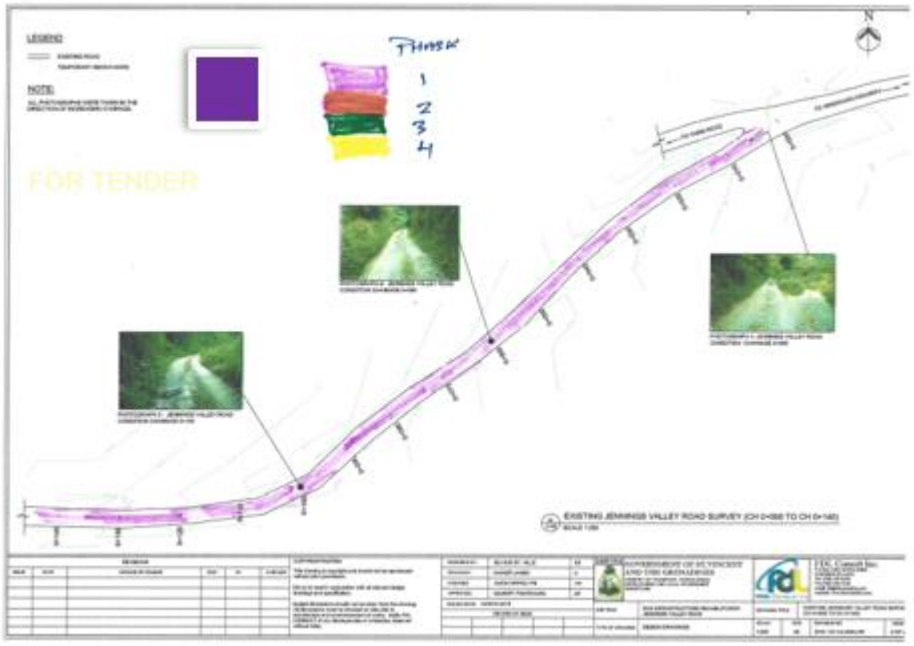
Waterloo #3 Road

Section of Waterloo #3 Road showing adjacent Farm Plots

8.3Annex 3

Mitigation to ensure access during construction

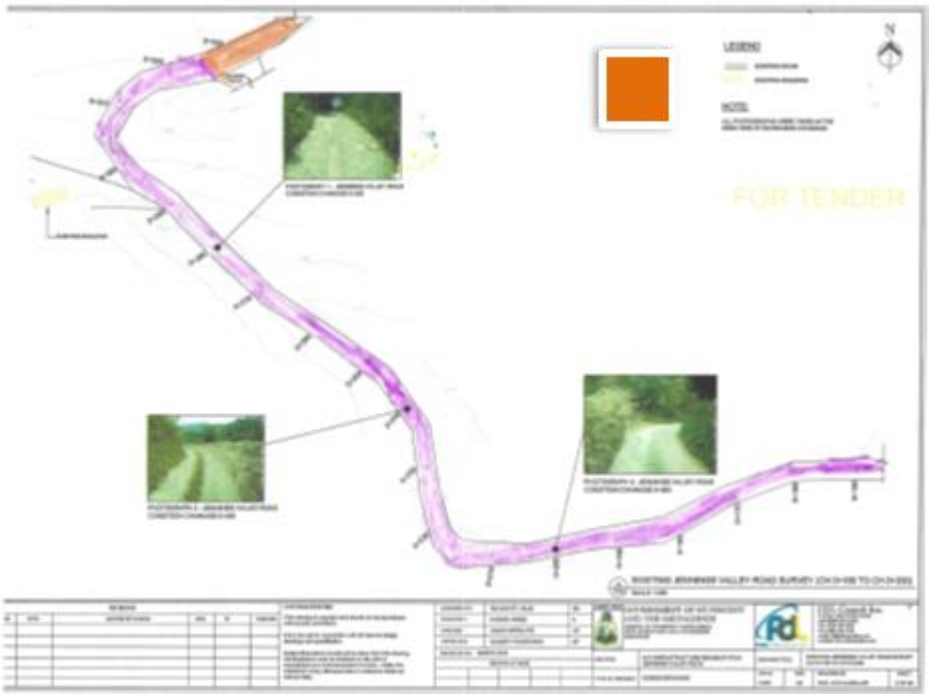
Mitigation to ensure access during construction



PHASE I CH 0+00 to CH 0+330

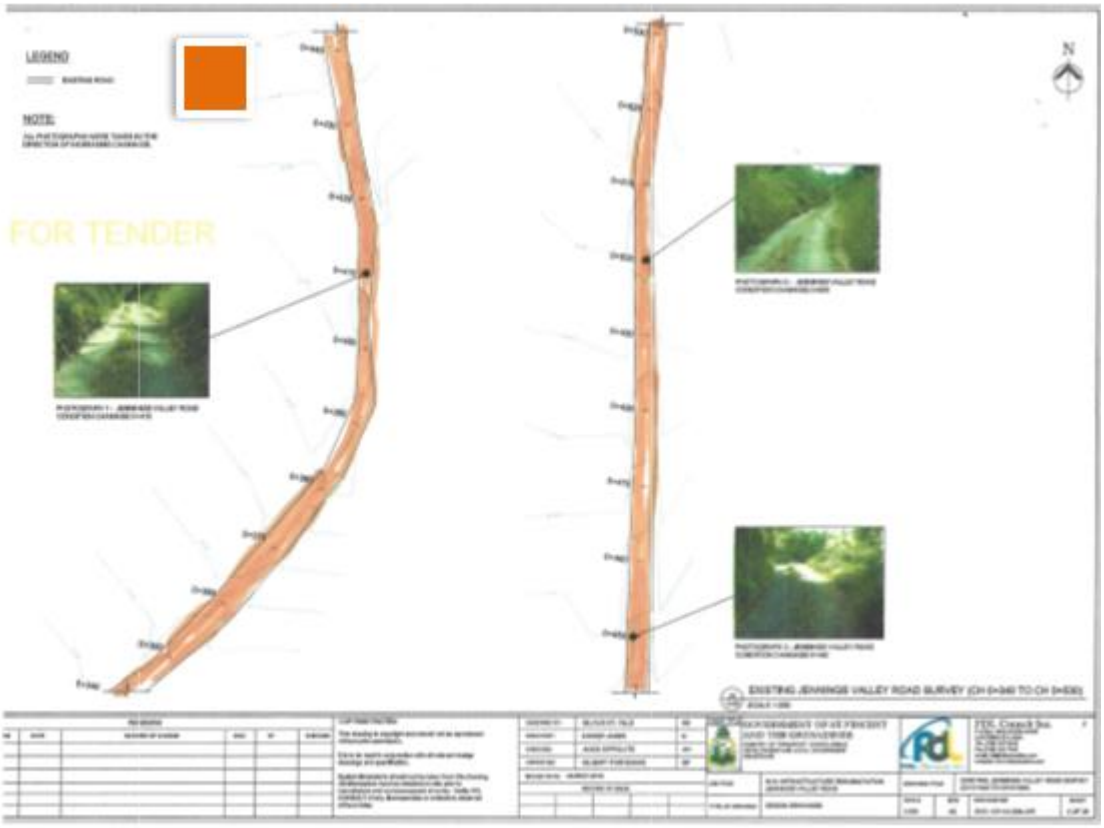
- Construction work can commence from CH 0+00 to CH 0+330 which includes excavation, filling, compaction and concrete.

- The bypass road can be used while construction is taking place from CH 0+00 to CH 0+330. This ensures a free flow of traffic while roadwork is being carried out.

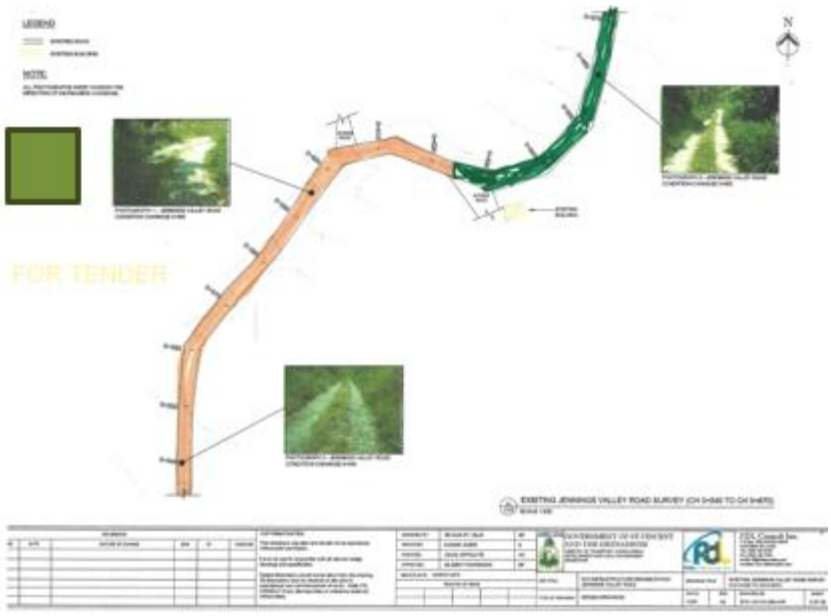


PHASE II – CH 0+330 to CH 0+630

During the construction of Phase I, a bypass road will be cleared for phase II at CH 0+630. This will facilitate uninterrupted work on phase II which is from CH 0+330 to CH0+630.


LEGEND
NOTE:
FOR TENDER
N
EXISTING JENNINGS VALLEY ROAD SURVEY (CH 0+340 TO CH 0+630)

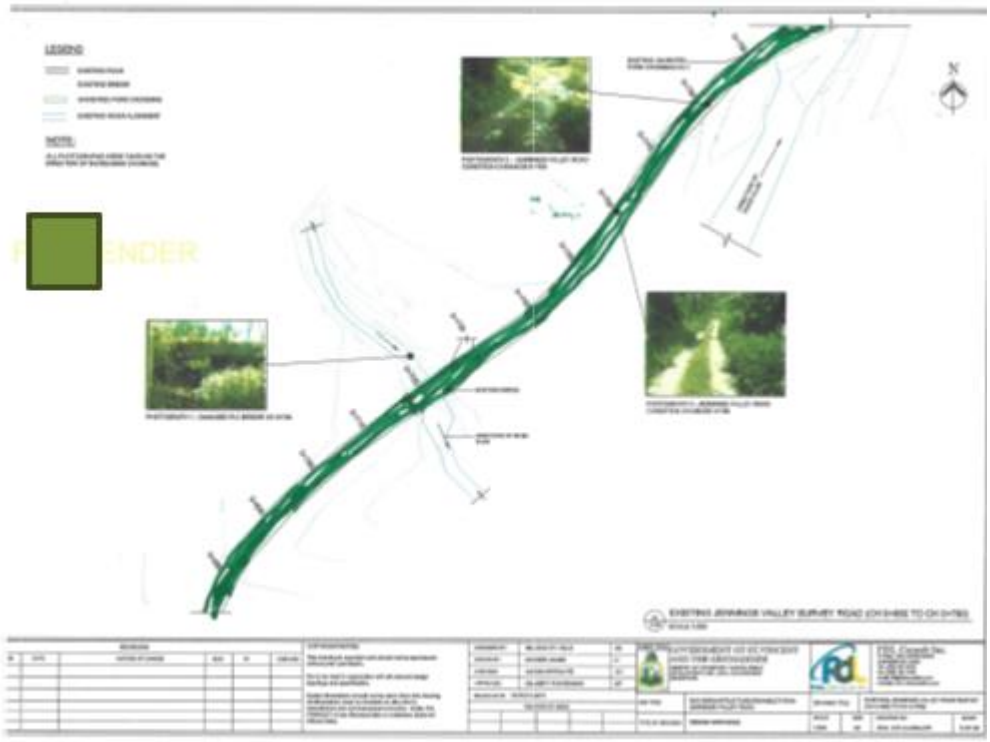
Phase III



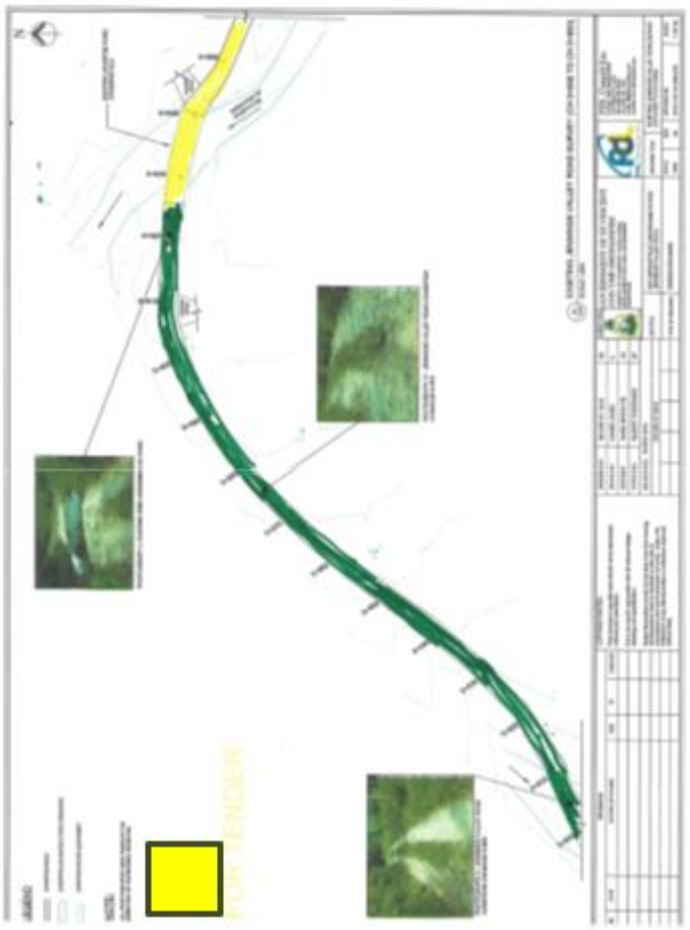
1. Construction on phase III, road paving will commence after phase II paving is completed. General excavation, creating lay-way and control points for traffic management will be in place.
2. The construction of the box culvert will be done after the road casting to minimize traffic delays and interruption. This work will be dealt with on a different schedule.

Note

- Phase III has no bypass road; therefore control points will be established for traffic management.
- The required signage, ***"stop and go", "road diversion", "please wait"*** etc. will be put in place to control the traffic during the works.



Phase IV



PHASE IV – CH 0+930 – CH 1+096