



**LIMITED ENVIRONMENTAL AND SOCIAL
IMPACT ASSESSMENT**

&

**ENVIRONMENTAL AND SOCIAL
MANAGEMENT PLAN**

Kamborini - Wala Feeder Road Project

(part of the PNG Agriculture Commercialization and Diversification
Project, P166222)

May 24

Coffee Industry Corporation

EXECUTIVE SUMMARY

The Coffee Industry Corporation is proposing the Rehabilitation of Agriculture Feeder Road Project (Kamborini – Wala Feeder Road) to improve market access for farmers by cutting time and cost of transport and increasing the quality of transported products besides having many other positive externalities for the community.

The purpose of this Limited Environmental and Social Impact Assessment (ESIA) and Environmental and Social Management Plan (ESMP) is to identify and assess the potential environmental and social (E&S) impacts/risks associated with the construction and operation of the Project and outline a system for managing these impacts/risks.

The project has been categorised as level 1 activity according to the Environmental (prescribed activities) Regulation 2002 and category B according to World Bank Operational Policies. The document has been prepared to fulfil the GoPNG and WB's E&S assessment requirements as outlined in the PACD Environmental and Social Management Framework (ESMF) and Resettlement Policy Framework (RPF).

Infrastructure for the proposed project will be constructed in and around the Kamborini, Marapini and Wala villages in the in wards 1 and 2 of South Wiru LLG, Ialibu Pangia District. The road starts at Kamborini just off the main Pangia - South Wiru loop road and ends in Wala Village a total of 5.5km and approximately 21km from the Pangia Station. The project will comprise of:

- Line Drains
- Gabion baskets – Also called stone baskets are square or rectangular wire mesh boxes filled with gabion stones. This will be constructed along landslip and erosion prone areas.
- Gravel base finish

The project footprint will follow the existing road corridor which will be widened to 6 metres.

The direct beneficiaries of the sub-project are the coffee farmers needing improved access to bring their produce and extension services to their farms and transporting their produce to markets within the value chain. The feeder road rehabilitation will reduce the high post-harvest losses experienced by farmers in the area by facilitating the transportation of coffee and other agricultural produce to market centres in the province and across the country, thus increasing trade effectiveness. This will also lead to increased income or maximization of returns for the farmers and ultimately significantly reduce poverty levels and improve living standards in the area. Indirect benefits of the subproject include improved access to social services such as schools, clinics, and markets. Smaller towns, villages, and rural settlements within the targeted rural areas will also benefit directly from socioeconomic improvements.

Besides these, the road sub-project will generate considerable travel benefits. When the road is in good shape, travelling time will reduce, vehicle wear and tear will also reduce (leading to direct savings on the cost of operating vehicles). Also, villages and settlements will spring up in and around the newly constructed or rehabilitated road. These settlers will engage in economic activities such as trade store, food and drinks vending and PMV operations. These activities will result in a significant rise in small to medium enterprise and income activities within the sub-project area.

In essence, this would lead to improvement in the livelihood of the beneficiary communities and security situation of the area would improve. Potentially, it is also expected that there may be some reductions as well in vehicular emissions due to the overall improved efficiency of the roads.

During construction phase; the sub-project will also provide necessary employment opportunities for the locals. The employment creation potential of the sub-project is substantial and will facilitate economic development and growth as well as impart road construction skills which can later on be used to find jobs in other construction works as where.

Although the overall impact of the project is largely positive, there are some environmental and social risks and potential negative impacts that require management, and these have been identified through the EISA process.

The road corridor will be widened to 6 metres; the current road width is not uniform throughout the entire stretch of the road. The first 2.9km of the road is wider than 6 meter, and remaining 2.6km is about 1 – 2m wide. All these section will be cleared to a 6m wide width. Land access for the widening of the road corridor has been voluntarily agreed to through consultation with customary land holders and documented in a right of way consent form following the process outlined in the PACD Voluntary Land Donation Protocol (PACD ESMF vol3 – Resettlement Policy Framework).

In addition to land impacts, the widening of the road will affect economic assets. A small number of economic trees will be impacted by the project. The project will implement social mitigation measures as outlined in the PACD RPF. The provision of land and loss of assets is expected to have negligible/minimal livelihood impacts on affected households; and the benefits of the road are expected to far outweigh these impacts. There are no vulnerable households or infrastructure that will be impacted by the project.

The construction risks and potential impacts are typical of construction activities and can be managed through standard mitigations. They include damage to crops or structures; soil erosion and sedimentation; noise, vibration and emissions; dust from earthworks; generation of waste; use of hazardous substances; nuisance to public from traffic and access restrictions; public safety risks; occupational health and safety risks; and community grievances. The Contractor will prepare a detailed Construction EMSP (CESMP) to outline how these will be managed on the ground to minimise risks and impacts, and include the mitigations specified in the ESIA/ESMP.

After construction. The project will be handed over to the stakeholders to operate and maintain on their own. Without the proper maintenance, the service life of the road reduces and the road is prone to deterioration and damages leading to inconvenience to the users and also create accidents. Such inabilities and failed operating procedures can be noted as risks and require proper road infrastructure management. Road operations include; vehicular traffic control, periodic check-ups and repairing if any damages and keeping an eye on the road inventories or establishments. These risks will be managed through a signed Memorandum of Understanding (MOU) with the stakeholders. The MOU outs the stakeholder's roles and responsibility of road maintenances after the completion of the project.

A Grievance Redress Mechanism will also be in place during construction and operations to monitor and resolve issues/concerns of the community.

ACRONYMS AND ABBREVIATIONS

CEPA	Conservation and Environmental Protection Authority
CESMP	Construction Environmental and Social Management Plan
CIC	Coffee Industry Corporation
CLUA	Clan Land Use Agreement
EHS	Environmental, Health, And Safety
E&S	Environmental and Social
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESSO	Environment and Social Safeguard Officer
GBV	Gender-Based Violence
GIIP	Good International Industry Practice
GoPNG	Government of Papua New Guinea
GRM	Grievance Redress Mechanism
LIR	Land Investigation Report
LLG	Local Level Government
MOU	Memorandum of Understanding
NGO	Non-Government Organisation
OHS	Occupational Health and Safety
OP	Operational Policy
PACD	PNG Agriculture Commercialization & Diversification
PMU	Project Management Unit
PPAP	Productive Partnership in Agriculture Projects
PPE	Personal Protective Equipment
ROW	Right of Way
SEA/SH	Sexual Exploitation and Abuse / Sexual Harassment
SWMS	Safe Work Method Statements
UXO	Unexploded Ordinance
VAC	Violence Against Children
WASH	Water, Sanitation and Hygiene
WB	World Bank

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1. INTRODUCTION

The Coffee Industry Corporation is proposing the 5.5km Kamborini – Wala Feeder Road Project (the Project) to provide access to market for farmers by cutting time and cost of transport and increasing the quality of transported products besides having many other positive externalities for the community.

The Project is part of the PNG Agriculture Commercialization and Diversification being implemented by the Department of Agriculture and Livestock (DAL), Coffee Industry Cooperation and Coffee Industry Corporation and financed by the World Bank (WB).

The purpose of this Limited Environmental and Social Impact Assessment (ESIA) and Environmental and Social Management Plan (ESMP) is to identify and assess the potential environmental and social (E&S) impacts/risks associated with the construction and operation of the Project and outline a system for managing these impacts/risks.

The document was prepared to fulfil the GoPNG and WB's E&S assessment requirements as outlined in the PACD E&S instruments i.e. Environmental and Social Management Framework (ESMF), Resettlement Policy Framework (RPF)

2. PROJECT DESCRIPTION

The objective of the Project is to improve access to value chains and market for farmers through rehabilitation and maintenance of the 5.5km Kamborini – Wala Fedder Road that provider access to PPAP partnership smallholder farmers/out growers.

The Project proponent is a former lead partner in the previous PPAP project.

Name of Lead Partner: **Kori Kopi Ltd**

Name of partnership: **Wiru Coffee Partnership**

Number of farmers/households: **660**

Locations: **South Pangia & East Pangia LLGs**

The proposed feeder road project will be located South Wiru LLG, in Ialibu-Pangia District of Southern Highlands Province. A map showing proposed Project infrastructure is provided as

Details of the Project infrastructure is provided in section 0. Construction and operational activities associated with the Project are described in sections 2.2 and 2.3, respectively. Land requirements are provided in section 2.4.

Kamborini Wala Feeder Road Project
LESIA & ESMP

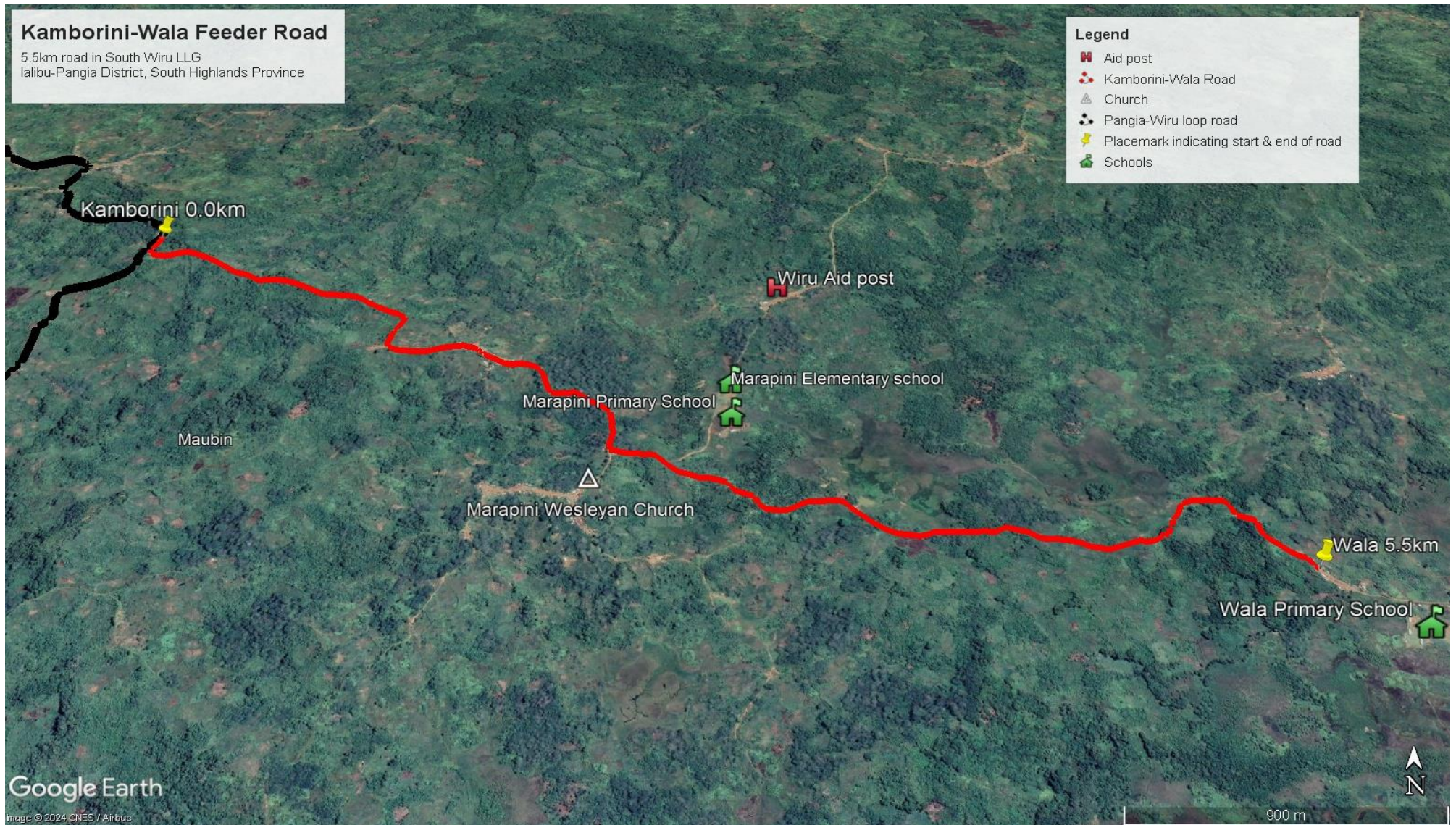


Figure 1 Map showing proposed Project infrastructure

2.1. Project Infrastructure

Gravel roads are built up from three features; local subgrade soil, embankment and top gravel. The subgrade soil is the existed local soil and generally to be grubbed between 0.2m to 0.4m and well graded. The Embankment is that layer constructed above the subgrade and constructed from local borrow pits. Generally, the embankment contributes the road height. The top gravel layer is the surface layer of height of 0.15m to 0.25m. The gravel generally transported from far distances and sometimes hauled close to the work area in advance in order to avoid loss of gravel transportation time.

The gravel road to be descript upon main three aspects; a) length of the road in (Km). b) Width of the road in (m). c) Height of the road (consist both the height of embankment and top gravel).

2.2. Construction Activities

Construction is expected to take approximately 9 months. Construction activities will include:

- Clearing and Grubbing
- Construction of Road Formation
- Construct gabion baskets
- Various drainage works including clearing of existing drainage structures, construction of line drains and installation of new culverts and head walls
- Removal and replacement of unsuitable materials in the sub grade as directed by the Project Engineer
- Preparation of the sub grade surface
- Placement of sub base correction materials in the sub grade as directed by the Project Engineer
- Construct sub base 100 mm thick and base course 100 mm

The workforce required to support construction of the Project is expected to include approximately 40 skilled and semi-skilled workers. The community will be engaged for unskilled labour requirements.

The contractor may install a temporary camp to house workers, if using existing local accommodation is not practicable. Laydown areas will be required to store pipe and other materials.

2.3. Operational Activities

There are limited activities required to operate the system. They include:

- Vehicular movement to and from the community and villages
- Vehicular Traffic Control
- Periodic/ routine maintenance

2.4. Land Access Requirements

The land required for the Project includes 33 000m² for the 6metres wide feeder road corridor.

Land due diligence was carried out through a series of free, prior and informed consultations were carried out with local communities (landowners) as well as the government authorities such as the ward councillors and village magistrates. Locals residing along the road corridor where informed of the right of way and voluntarily signed the ROW consent forms and the Clan land used agreement forms.

A land investigation report is attached Annex 10.2.

3. LEGAL, REGULATORY AND POLICY FRAMEWORK

3.1. PNG Laws and Regulations

A summary of key relevant acts, regulations and policies are provided in this section.

Environment Act 2000. This act outlines responsibilities for protection of the environment while allowing development in ways that improve quality of life but also maintain ecological processes on which life depends. According to Section 6 (d) in Part 2 of the Act, an Environmental Impact Assessment study needs to be carried out on activities specified in the second schedule of the Act that are likely to have a significant impact on the environment (i.e., Level 2 and Level 3 activities).

Conservation and Environmental Protection Authority Act 2014. This act established an institution, the Conservation and Environmental Protection Authority (CEPA), to regulate the *Environment Act 2000*.

Environment (Prescribed Activities) Regulation 2002. This regulation sets out the prescribed activities that require development consent to be obtained from CEPA¹. A development consent application (i.e., application for environment permit) must include an environmental assessment. Pertaining to road construction activity for the particular project the activity level fall under the level 1 category, this means that no environmental permit is required and the minimal adverse impacts identified during the screening and impact assessments will be mitigated and rectified/managed through an ESMP.

The Land Act 1996 is the fundamental legislation to manage land issues in Papua New Guinea. The country has 3% of State land, the remainder is customary land. The PACD Resettlement Policy Framework (RPF) outlines relevant land-related legislation for the Project (Volume 3).

Industrial Safety, Health and Welfare Act 1961. The Industrial Safety, Health and Welfare Act 1961 provides for the protection of Occupational Health and Safety amongst workers in construction or industry based work place. It is supported by the Industrial Safety, Health and Welfare Regulations 1965 and is administered by the Department of Labour and Industrial Relations.

Other relevant legislation

- Public Health Act 1973

3.2. World Bank

3.2.1. Operational Policies

The WB has series of operational policies (OP)², or safeguards, to help identify, avoid, and minimise harms to people and the environment. These safeguards require borrowing governments to address certain environmental and social risks to receive WB financing for development projects. Four of the eight OPs that apply to environmental and social risks are triggered by the Project.

OP 4.01 Environmental Assessment – the Project follows WB requirements for environmental assessment (EA) to help ensure that the Project is environmentally sound and sustainable, and thus to improve decision making.

OP 4.10 Indigenous Peoples – the large majority of potentially affected population is indigenous thus no separate Indigenous Peoples Plan will be required. However, the relevant elements of the policy

¹ The act and regulation refer to the Department of Environment and Conservation (DEC), however, this entity has been replaced by CEPA

are integrated into project design, including the facilitation of community engagement, ongoing community consultation and Project awareness.

OP 4.11 Physical Cultural Resources – the project will not require construction on land with known physical cultural resources. However, in line with OP 4.11 the Project will include a protocol for managing chance finds.

OP 4.12 Involuntary Resettlement – civil works to be undertaken will not require land acquisition or cause physical displacement, therefore it is anticipated that no involuntary resettlement will take place in this Project. However, there may be instances of economic displacement, such as localised property damage – if this cannot be avoided, which requires consideration of OP 4.12.

3.2.2. Environmental, Health and Safety Guidelines

The WB Group's Environmental, Health, and Safety (EHS) Guidelines are technical reference documents with general and industry-specific examples of GIIP. They contain the performance levels and measures that are normally acceptable to the WB Group and are generally considered to be achievable in new facilities at reasonable costs by existing technology. The EHS Guidelines are comprised of General Guidelines which are organised by themes (environmental; occupational health and safety; community health and safety; construction and decommissioning) and industry-specific guidelines.

4. ENVIRONMENTAL AND SOCIAL CONTEXT

4.1. History of the Feeder Road

The Kamborini Wala Road was initially a pilot track dug up by the locals themselves. This route was much shorter for the people from Wala villages and other surrounding communities to access the main Pangia Wiru Loop Road than for them to where the loop highway would actually end to catch a PMV to Pangia Station.

In 2022, the District Government Authority did a patrol grade from Kamborini to Marapini Village about 3km. This widened the road width to more than 4m to 6m therefore most of the gardens, trees, and houses along this route are outside of the required road corridor. First layer of gravel base was laid for about 300m from the start of the road however due to lack of funding the work ceased.

The remaining 2.5km of the road is still in the original state when the locals have worked on. Most parts are covered with bush or Pit-Pit grass.

4.2. Physical Environment

The topography of the area is mountainous with the road passing through a few slopy areas. The vegetation cover is mostly secondary bush/forest, grass, crop gardens and coffee tree/gardens along the road corridor. There are also a lot of trees however all are outside of the road corridor.

4.3. Biological Environment

The biological environment of the project impact area is mostly covered by secondary forest, crop gardens and coffee gardens. There are no sightings of endangered species of flora or fauna in the project impact area.

Tree species sighted along the road corridor and communities include; *Castanopsis acuminatissima*, *Nothofagus*, *Araucaria*, eucalyptus and casuarina.

From the vegetation cover it is perceived that the area experiences a lot of rainfall. The soil type in the area is red/orange clay soil and peat soil.

4.4. Social Environment

Bulk of the population live in a village setting where houses are built in a circular design or layout. There bare area or field in the middle calls the ples singsing which is normally used for community gatherings such as, bride price ceremonies, court hearings, meetings etc...

Others villagers prefer to live away from community due to their own reasons have their own homes built separately or shattered away from the rest of the community.

There are 2 elementary schools and 2 primary schools in the area, a health centre and several Christian denominations in the area they include; Catholic, Wesleyan church are new reformed denomination, Seventh Day Adventist mission, Nazarene, PNG Bible Church and Lutheran to name a few.

4.5. Environmental and Social Sensitive Receptors.

The ESIA focuses on environmental and social components that could be most affected by the Project and those that are a concern to governments, community members and stakeholders. The components are called Environmental and Social Indicators (ESI). Below are the identified ESI for this Project, and the specific factors that were considered for each in order to undertake the impact assessment.

Table 1 Environmental and Social indicators

Environmental and Social indicators	Factors to be considered
Air Quality	<ul style="list-style-type: none"> • Dust generation • Air pollution
Residences	<ul style="list-style-type: none"> • Enough land area outside ROW for houses to be relocated to. Owners sign CLUA and ROW as prove of consent to relocate their homes. • Land area donated for project is sufficient and will not affect permanent houses.

Listed in the table are the only sensitive receptors that the project will impact. There are no schools, health facilities, grave site, businesses water supply etc... in and around the project area that will be impacted by the project. There is no sensitive ecosystem in the area, the land is predominated by years of farming activities.

5. LAND INVESTIGATION

5.1. Land Ownership

The entire stretch of the 5.5km feeder road lies on customary land. Land tenure is predominately patrilineal. As common in PNG, Kamborini - Wala people live in clans. The land inheritance is through patrilineal system whereby male child inherits the land and has total customary authority over the land. At the same time, they also maintain clan system whereby clan leader makes the final decision, but the total authority over the land rests with the individual male.

Land due diligence was carried out through a series of free, prior and informed consultations were carried out with local communities (landowners) as well as the government authorities such as the ward councillors and village magistrates. Locals residing along the road corridor where informed of the right of way and voluntarily signed the ROW consent forms and the Clan land used agreement forms.

A land investigation report is attached Annex 9.2.

5.2. Land Disputes

The entire stretch of the road was investigated and there was no indication of Land Disputes. Every block owner or representative was interviewed, and they all indicated that the land is free from any dispute. The local land mediators and village magistrates are responsible for mediating land disputes.

5.3. Land Use

Land use along the feeder road consists predominately farming activities which includes coffee plots, subsistence crop gardens and livestock farming (mostly pigs).

During the Due diligence process, it was identified that most of these farming activities will not be affected by the feeder road construction as they lie outside of the 6m road corridor for the first 3km of the road. The next 2.5km is covered with bush dominated by *Micanthus Floridulus* (pit pit) and variety of bush fern, wild sunflower and various types of grass and shrubs.

5.4. Vulnerable Households

There are no vulnerable households or infrastructure that will be disrupted during construction activities.

6. ENVIRONMENTAL AND SOCIAL RISKS AND POTENTIAL IMPACTS

6.1. Overview

This section describes potential adverse impacts of the project activities. During the Environment and Social Screening process, ESIA and consultation process of the feeder road sub-project, the observations from field visits and the perspectives of the local communities, local authorities and other stakeholders were assessed and considered in the ESMP. Based on the evaluation of the potential adverse impacts that will result from the road rehabilitation sub-project it can be concluded that the risks and impacts are minor and limited in scale and time.

The main adverse impacts that have been identified such as dust and noise pollution will be temporary and the mitigate measures will result in minimal disturbance. Other risks such as the impacts on the natural environment will be either avoided or reversed. Throughout the sub-project cycles the risks/impacts will be monitored and managed as detailed in this ESMP (section 7).

6.2. Positive Impacts

Overall, the positive/beneficial impacts of the project far outweigh the temporary and short term environmental and social impacts that will result. The Project will likely have a significant positive impact including;

- **Employment:** temporary employment for community members during the construction phase by the project directly and indirectly through employment opportunities through the provision of services to the construction team which will include women. Increase in the movement of business concerns/economic activity to areas along the corridor, will enhance the employment possibilities of local population.
- **Income Generation:** The improved accessibility will lead to better transport services, hence increasing income of operators in transport services. The location of businesses along the corridor due to accessibility could also change the income levels of the community members due to increased employment possibilities
- **Improved all weather access and ease of road transport in the area:** The rehabilitation of the proposed road will improve transport and communication between surrounding rural communities and connect rural communities with urban communities, markets and services. The

climate resilient road will make transportation of goods, commodities, and access to basic services within the area faster and easier all year round and not just in the dry season.

- **Reduced Transportation and Vehicle Maintenance Costs:** The rehabilitation of the existing road and surfacing will result in reduced transportation costs and increased number of vehicles plying the route. The motorable nature of the road will reduce instances of vehicle break down and vehicle maintenance. This will lead to an increment in the lifespan of vehicles that ply the route.
- **Increased Investments:** Reduced transportation costs of goods and services and increased accessibility along the road corridor may increase the frequency of private entities locating their businesses in the area, hence increasing overall investment along the road corridor. The road will also enhance access to nearby markets.
- **Stimulation of Development:** Increased access will result in development of other social amenities, such as building of health centres, schools, etc. and may attract development projects. This will also enable the facilitation of other economic activities in the settlement areas. For example, improved access to market for agricultural produce through a reliable, transportation network, will result in long-term increased household income and will enable reinvestment back into agricultural activities.
- **Improved Access to and Delivery of Healthcare and Education:** The project when completed will enhance access to schools and health facilities. It will also reduce the time spent to get to school and health centres. Additionally, improved ambulance services for communities along the project corridor could result.
- **Community resilience and adaptation to climate change:** Rural access is challenged because of the prevalence of landslides and erosion hazards along the road corridor, especially during the rainy season. The project will contribute to enhanced resilience of the community to climate induced disasters through the application of the climate risk reduction measures such as soil bioengineering and complementary catchment management interventions. These climate risk reduction features have been included in the designs to safeguard the infrastructure unit from the potential climate hazards.
- **Improve social-economic conditions and improved living standards:** Improved all-weather access will contribute to improvement of the living conditions of population living along the road and particularly for the residents of the communities who are considered as direct beneficiaries. The major improvement is access to social services and being able to transport their products (such as agricultural produce) to markets in a timely manner and at less cost. The catchment management interventions and soil bioengineering activities that will complement the road structure will also contribute to improvement in the livelihood of the community. Both men and women agreed that the road rehabilitation will result in improvement in their livelihood.
- Increase in **land value** within the project area, due to accessibility to a reliable transportation link/network.
- **Community project governance.** The proposed project will involve the community and the local stakeholders throughout the project cycle equipping them with management skills in implementation and management of road rehabilitation projects. The project will present the local stakeholders with a learning opportunity.

6.3. Adverse Environmental and Social Impacts

Although the overall impact of the project is positive, there are some environmental and social risks and potential negative impacts that require management. The main adverse impacts that have been identified such as damage to crops, soil erosion and sedimentation; noise, vibration and emissions; dust from earthworks; generation of waste; nuisance to local communities from traffic and access restrictions; public safety risks; occupational health and safety risks; and community grievances. Other risks such as the impacts on the natural environment will be either avoided or reversed. Throughout

the sub-project cycles the risks/impacts will be monitored and managed as detailed in this ESMP Table in Section 7.

6.3.1. Construction

The environmental and social risks and potential negative impacts associated with Project construction activities are described below.

Sourcing of materials for construction will be done by the contractor. This will also involve the contractor and landowners to sign agreements on the use of land and extraction of materials from the land. Gravel extraction from quarries and rivers can disrupt natural land contours and vegetation, lead to slope instability, accelerate erosion and sediment transportation.

Soil Erosion and Sedimentation. This will be associated with exposed areas at active worksites and run-off from material stockpiles.

Noise, Vibration and Emissions (Fumes). This will be associated with operation of plant and machinery, such as excavators, rollers, generators, etc. The impact will be mostly temporary as the worksites will be moving – it will be more present at static worksites, laydown and accommodation camp.

Dust from Earthworks. This will be associated with cleared areas within active worksites, and from vehicle movements affecting.

Generation and improper management of solid waste. This includes packaging and excess materials, clear and grab wastes.

Generation of Liquid Waste. This includes sewerage and grey water from camp operations.

Use of Hazardous Substances and Generation of Hazardous Waste. This includes fuel, lubricants, oils, etc., needed for the works and generation of hazardous waste associated with use of such materials (e.g., oily rags, spent filters, used containers, etc.). The use of hazardous substances and generation of hazardous waste will mainly be associated with vehicle and machinery refueling, and service/maintenance of vehicles and machinery.

Temporary land use: Land is likely also to be required during construction including a workcamp/laydown area.

Encroachment outside the agreed ROW: Accidental/unplanned crop/property damage during construction

Public Disruption and Safety risks. This will be from disruption to road and pedestrian traffic; and access restrictions to properties and other premises for short.

Public road safety risks associated with truck and machinery movements around the worksite.

Community Health Issues. This primarily relates to sexually transmitted diseases, sexual exploitation and abuse / sexual harassment (SEA/SH), anti-social behavior from presence of workforce.

Occupational Health and Safety Risks. The main risks associated with the works are related to the use of heavy machinery and equipment, handling of hazardous substances, and excavations.

Community Unrest / Site Security. The community will benefit from the project and are very supportive of it progressing, therefore it is unlikely that community unrest will occur as a result of the project, aside from potential disagreements around employment and compensation for damages (real or perceived) to community-owned assets. Nevertheless, unrest (typically ethnic-related) in the wider region is not uncommon and there is potential for project personnel to be at risk of such violence. Damage or loss of assets through vandalism and theft is also a risk.

Chance Find of Cultural Site. As the works are located in previously disturbed areas, chance finds are unlikely. Nevertheless, a procedure for chance finds to be developed and included in the CESMP.

ESHS Incidents. Incidents during construction may as spills, injuries, near misses, serious breaches of process, etc. Inadequate incident management can exacerbate the impact of the incident and/or miss an opportunity to learn from the event.

Emergencies. Potential emergencies that may occur during construction include hazardous materials spills (that have potential to cause serious harm), fire, civil unrest and natural disasters. Inadequate management of the emergency situation can exacerbate the potential impact.

Labour and working condition risks.

- Terms of employment not secured by contractual agreements.
- Discrimination and lack of equal opportunity.
- Use of child or forced labour.
- Workplace SH; and
- Occupational health and safety (OHS).

6.3.2. Operation

The key environmental and social risks and potential negative impacts associated with Project operational and maintenance Include:

Occupational Health and Safety. The main risks associated with operation of heavy machinery and equipment, handling of hazardous substances, and excavations; and well as road side work.

Public Disruption and safety risks. This will be from disruption to road and pedestrian traffic; and access restrictions to properties and other premises for short periods. Public road safety risks associated with truck and machinery movements.

These risks will be managed through the MOU for operation and maintenance and relevant training provided by the PMU prior to asset hand over.

7. ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

This section describes mitigation measures, responsibilities for implementation and monitoring of the environmental and social risks impacts identified in section 6.

The supporting documents describing mitigation measures that will be used to manage the environmental and social risks are:

Contract: Contractual requirements for E&S management are outlined in the Bid Documents including but not limited to: i) Works' Requirements – E&S Requirements; and ii) General Contract Requirements and associated annexes.

CESMP – this key document will be prepared and used by the contractors to manage the risks and potential impacts associated with their scope of work. The Bid Documents outlined requirements for the CESMP. To assist the contractor in preparing this plan, a CESMP outline is provided as Annex 9.6 along with the following supporting documents:

- Grievance Redress Mechanism
- Incident Reporting Protocol
- Emergency Response Protocol
- Chance Find Procedure
- Monthly Reporting Template (refer to Bid Documents – E&S Metrics for Progress Reports)
- Workers Code of Conduct

Memorandum of Understanding: Road Maintenance – The MOU outlines responsibilities of local level Government of Ialibu - Pangia District, the Southern Highlands Provincial Government, the Kamborini – Wala community and the Coffee Industry Corporation to ensure the road is maintained.

The purpose of this MOU is to set out the roles and responsibilities of the individual parties as agreed amongst them, and by so doing to provide a firm commitment by each of the parties to contribute their share of the resources required to maintain the infrastructure in a sustainable manner, by providing between them the necessary labour, plant, material, technical or financial support, starting from the date when the rehabilitation works are completed and handed over for maintenance.

7.1. Potential Impacts/Risks and Mitigation Measures

A comprehensive list of the potential environment and social impacts and risks associated with the Project are provided in Tables 2 and 3, along with proposed mitigation measures and responsibilities.

Table 2: Environmental Management Table

Issues/Potential Impacts	Summary of Assessments of these issues/impacts	Mitigation Measures	Responsible Party
Occupational health and safety	<ul style="list-style-type: none"> Road works require the operation of heavy machinery and work sites which pose a risk to safety of workers. Temporary workcamps pose potential health risks in terms of hygiene, infectious disease (i.e. malaria). 	<ul style="list-style-type: none"> C-ESMP to include a Worker Health and Safety manual/plan covering requirements outlined in the General Contract Conditions. Provide OSH orientation to workers and maintain adequate warning signs at construction site boundaries; Maintain materials used for vehicle maintenance and repair in a clearly marked and secure area; Operate and maintain plant and equipment in accordance with manufacturer's instructions; Ensure occupational health and safety measures and equipment are in place on construction sites and workcamps and that workers receive appropriate training/induction. 	<ul style="list-style-type: none"> Contractor's Site Manager and E&S Specialist
Operation of Labour Camps have potential to generate waste and pollute environment	<ul style="list-style-type: none"> Pollution of surface and groundwater supplies from unsanitary waste management and disposal practice. 	<ul style="list-style-type: none"> Camps shall not be located near settlements or near drinking water supply intakes. The camp shall be operated within self-sufficient infrastructure including water supply, sanitation and waste management which is designed and operated to avoid or minimize potential impacts on the receiving environment. Workcamps will be rehabilitated to prior state upon decommissioning. Workcamps must have hygiene rule and all employees to comply. 	<ul style="list-style-type: none"> Contractor's Site Manager and E&S Specialist
Vegetation management	<ul style="list-style-type: none"> Feeder road construction often requires the removal of vegetation and can impact water quality. 	<ul style="list-style-type: none"> Clearly demarcate areas for clearance and seek approval from site management before clearance commences. Avoid accidental damage to trees and fruit trees 	<ul style="list-style-type: none"> Contractor's Site Manager and E&S Specialist

Issues/Potential Impacts	Summary of Assessments of these issues/impacts	Mitigation Measures	Responsible Party
		<ul style="list-style-type: none"> • Maintain stabilising vegetation cover on roadside slopes and river banks. • Minimise the damage to or removal of isolated mature trees. These may only be cut or removed with the prior approval of site management and relevant landowners. • Avoid the burning of removed vegetation. Where possible, mulch cleared vegetation and use in rehabilitation; • Re-vegetate, or promote natural re-vegetation, of all cleared areas as soon as possible after completion of earthworks in consultation with the landowner(s). Re-vegetate with appropriate species, including "open-canopy" tree species and native bushes to minimise erosion and weed invasion and improve habitat values for certain species; • Where possible, maintain cleared native and productive vegetation and soils in good condition so that they can be used in the direct rehabilitation associated with completed road sections. • Avoid cutting of trees and clearing of vegetation along the waterways. • Avoid dumping all of sub-soil/spoil along the road side as this may increase the proliferation of these invasive species. 	
Noise and Vibration	<ul style="list-style-type: none"> • Associated with operation of plant and machinery, such as excavators, rollers, generators, etc. The impact will be mostly temporary as the worksites will be moving – it will be more present at static worksites, laydown and accommodation camp. 	<ul style="list-style-type: none"> • implementation of set construction working hours, • consideration of the location of sensitive receptors when positioning mobile equipment, such as generators, to minimise nuisance, and other typical construction mitigations • Do not locate noise-generating facilities close to sensitive receptors such as clinics or hospital or schools. 	<ul style="list-style-type: none"> • Contractor's Site Manager and E&S Specialist
Erosion control	<ul style="list-style-type: none"> • Exposed surfaces subject to erosion i.e. spoil areas, cuttings • Erosion and subsequent effects on waterways and adjacent land uses • Erosion from the steep slopes into 	<ul style="list-style-type: none"> • Minimise as far as practicable the time that surfaces remain bare. • Progressively re-vegetate and mulch disturbed areas as soon as practicable after completion of work; • Erosion control structures such as stormwater diversion (catch) drains and bunds will be constructed and maintained to temporarily divert stormwater around construction sites; 	<ul style="list-style-type: none"> • Contractor's Site Manager and E&S Specialist

Issues/Potential Impacts	Summary of Assessments of these issues/impacts	Mitigation Measures	Responsible Party
	<p>waterways and line drains</p> <ul style="list-style-type: none"> • Exposed areas at active worksites and run-off from material stockpiles 	<ul style="list-style-type: none"> • Onsite drainage schemes will be constructed and maintained to minimise ponding and uncontrolled runoff; • Avoid earthworks during high rainfall periods, if possible; • Side drains (depth 500mm or greater) will be installed along all roads to prevent roadside "ponding" and surface wash; • Design drains and culverts to remove all runoff water without scour. On steep slopes culverts may need to be stepped using rock slabs or gravel in gabion baskets; • Re-use spoil/cut wherever possible in the feeder road rehabilitation activities; • Protect excavated spoil from erosion by covering and providing interception drains if left • Minimise steep cuts to avoid erosion • Placement of silt fencing downslopes to prevent erosion and wash off. 	
Sediment control	<ul style="list-style-type: none"> • Sediment generated from construction activities i.e. site clearing and excavation transported to local waterways 	<ul style="list-style-type: none"> • Minimise the number of discharge points from the site and construct control structures such as sumps and settlement ponds around drainage points to trap sediment; • Avoid discharging directly into streams or other water-bodies, or into garden areas • Provide silt fences or similar around areas susceptible to erosion; • Protect construction sites from off-site surface runoff using bunds or trenches in order to minimise the amount of on-site stormwater and ponding; • Do not allow vehicles and machinery to enter a watercourse. If this cannot be avoided, the vehicles must be thoroughly washed down, well away from the stream before entering. • Where diversion channel bends are constructed, maximise radius, minimize gradients, install breakers to minimize velocities, • Where culvert headwalls are constructed, a diversion channel must also be installed and all debris and spilt concrete fines removed before the flow is restored. 	<ul style="list-style-type: none"> • Contractor's Site Manager and E&S Specialist
Gravel/Stone Extraction / Material Sourcing	<ul style="list-style-type: none"> • Gravel extraction from quarries and rivers can disrupt natural land contours and vegetation, lead 	<ul style="list-style-type: none"> • A Gravel Extraction Plan shall be prepared for each site and necessary permits obtained from government before gravel extraction. 	<ul style="list-style-type: none"> • Contractor's Site Manager and E&S Specialist

Issues/Potential Impacts	Summary of Assessments of these issues/impacts	Mitigation Measures	Responsible Party
	<p>to slope instability, accelerate erosion and sediment transportation</p>	<ul style="list-style-type: none"> • Use identified/approved quarries or aggregate/gravel sources • Where possible, extract gravel from dry gravel pits rather than gravel pits in river channels; • Where river gravel is extracted, machinery or equipment must not be allowed to enter the water channel, and extraction of gravels should be restricted to no closer than a minimum 5m from the water channel; • River gravel extraction should only be carried out under low flow conditions and never under high flow conditions; • Ensure containment of sediment-loaded runoff and contaminants at all quarry sites; • Employ safety measures to avoid any loss of load from trucks; • Ensure stability of exposed quarry faces or overburden stockpiles; • Specify means employed to protect the channel banks, avoid discontinuities in the river bed, minimise erosion upstream and sediment loading problems downstream of the quarry site. 	
<p>Damage to waterway, river bed and banks; downstream siltation; and change in downstream flows (increased velocity)</p>	<ul style="list-style-type: none"> • To reduce effects on local hydrology and prevent sedimentation of waterways 	<ul style="list-style-type: none"> • Design works to minimise impact on waterways; • Ensure that solid waste is not disposed of, or stored, on river bank or in downstream waterway; • Minimise disturbance to river banks to avoid destabilisation; • Consider present flow rates and assess new flow rate after culvert; • Check for downstream vulnerabilities to higher flows • Concrete batching works on causeway must be properly managed to ensure no excess concrete is washed into the waterways 	<ul style="list-style-type: none"> • Contractor's Site Manager and E&S Specialist
<p>Timber Harvesting (for log bridges)</p>	<ul style="list-style-type: none"> • Timber harvested without proper consent and/or with impacts on critical habitats or environmentally sensitive areas 	<ul style="list-style-type: none"> • Prioritize the use of locally sourced timber only when there are no other feasible options for construction materials. This helps to minimize the cutting down of trees and promotes sustainable practices. • Identify/confirm resource ownership rights and obtain and document agreements with regarding to the sourcing of timber/logs for bridges • Ensure that timber/logs are sourced from modified habitats/ production areas only. 	<ul style="list-style-type: none"> • Contractor's Site Manager and E&S Specialist

Issues/Potential Impacts	Summary of Assessments of these issues/impacts	Mitigation Measures	Responsible Party
		<ul style="list-style-type: none"> • Limit harvesting of logs for use on the feeder road (i.e. bridges) only. 	
Dust control	<ul style="list-style-type: none"> • Dust emissions from transportation, stockpiling, quarry and construction activities impacting on sensitive receptors (i.e. local communities) 	<ul style="list-style-type: none"> • Manage dust near sensitive receptors (i.e. houses located near ROW) including avoiding conduct of dust generation activities in windy conditions, spraying roads and imposing 40km/hour speed restrictions (i.e. installing temporary speed humps). • Wet any spoil loads being carried in open trucks in dry weather • Rehabilitate exposed soil surfaces with cut vegetation or mulch or revegetation as soon as practical after clearing 	<ul style="list-style-type: none"> • Contractor's Site Manager and E&S Specialist
General site and waste management	<ul style="list-style-type: none"> • Generation of Solid Waste. This includes packaging and excess materials, clear and grab wastes. • Generation of liquid waste - Generation of Liquid Waste. Sewage and grey water • Non-hazardous materials which can pollute surrounding environment • Accidental spillages of wet cement, or cement washings into the river 	<ul style="list-style-type: none"> • Provide an impervious and bunded area for oil and fuel transfer and cleaning of equipment and vehicles; • Do not dispose of solid waste on river bank or in downstream waterway. • Minimise waste generated through reduction, reuse, recycling and composting; • Prior to removal from site, store all waste in suitable areas/receptacles to prevent hazards such as fires, attraction to vermin or dissemination of dust; • Remove all disabled machinery from the project site; • Minimise depressions and screen areas of standing water to reduce potential for mosquito breeding. • Construct off-site or establish clear separation of concrete batching works from any drainage to the waterway; • Avoid spills of cement or disposal of excess mixed cement into waterway; • Protect dry cement stocks from wind by covering with tarpaulin • Do not dispose of solid waste on river bank or in downstream waterway. • Waste and spoil stockpiles to be stored at least 100m from waterways; • Protect excavated spoil and waste from erosion by covering and providing interception drains if left overnight; • Rubbish stored in neat/tidy piles awaiting collection; • General (i.e., non-hazardous) waste that cannot be reused, recycled or composted will be disposed of at a site designated by the District Administration for non-hazardous waste disposal. • No burning or burying of rubbish; 	<ul style="list-style-type: none"> • Contractor's Site Manager and E&S Specialist

Issues/Potential Impacts	Summary of Assessments of these issues/impacts	Mitigation Measures	Responsible Party
Hazardous Waste	<ul style="list-style-type: none"> Hazardous materials which can pollute surrounding environment and impact surrounding communities - This includes fuel, lubricants, oils, etc., needed for the works and generation of hazardous waste associated with use of such materials (e.g., oily rags, spent filters, used containers, etc). The use of hazardous substances and generation of hazardous waste will mainly be associated with vehicle and machinery refuelling, and service/maintenance of vehicles and machinery. 	<ul style="list-style-type: none"> Proper storage of hazardous materials, hazardous materials registers, spill kits on site, portable bunding etc., used when offsite refuelling required and worker training. All maintenance other than emergency situations will be conducted in the contractor's workshop. Remove the waste materials to more secure place and organize it neatly. Make a sign on material which may contains hazard 	<ul style="list-style-type: none"> Contractor's Site Manager and E&S Specialist

Table 3 Social Management Table

Issues/Potential Impacts	Summary of Assessments of these issues/impacts	Mitigation Measure	Responsible
Impacts on land, structures and economic assets	<ul style="list-style-type: none"> Loss of land for the right of way Loss of economic assets/livelihoods and or structures 	<ul style="list-style-type: none"> Document impacts on structures and economic assets in participation with project affected people and implement impact mitigation measures as per the project's RPF. Obtain and document agreements on land access for the road right of way from communities, project affected people and relevant authorities as per the project's RPF. Vulnerable people affected by the project will be identified and measure be taken to ensure they are not adversely affected by land or crop loss. 	<ul style="list-style-type: none"> Senior Engineer in the PMU and ESSO
Community Unrest or Dissatisfaction amongst	<ul style="list-style-type: none"> Poor communication and/or unresolved grievances during construction could lead to community 	<ul style="list-style-type: none"> Ensure conduct of free and prior informed consultation among the beneficiary and affected communities Obtain broad community consent as a prerequisite to work being undertaken on roads. 	

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Issues/Potential Impacts	Summary of Assessments of these issues/impacts	Mitigation Measure	Responsible
affected/benefited communities	<p>angst and construction delays.</p> <ul style="list-style-type: none"> • Affected/benefited communities do not support the infrastructure subproject • Damage or loss of assets through vandalism 	<ul style="list-style-type: none"> • Continue to facilitate community consultation throughout construction period. • Maximise opportunities for local employment associated with construction activities with a priority on PAPs with affected land and economic assets/livelihoods. • Include women's and other community groups in project activities including local employment etc. • Ensure that grievance mechanism is in place and the people are aware of it, and grievances are being addressed. • Laydown area and camp to be fenced with security lights and guards. Equipment and containers to be secured overnight and when not in use, and mobile plant and equipment taken to laydown area (or other secure area) for overnight storage, where practicable • Civil unrest will be captured in an emergency response section of the Construction ESMP (CESMP). 	Contractor's Site Manager and E&S Specialist
Temporary Land Use / Encroachment on surrounding land (outside agreed right of way)	<ul style="list-style-type: none"> • Accidental/unplanned crop/property damage during construction • Disputes concerning the use of temporary sites for workcamps and laydown areas 	<ul style="list-style-type: none"> • All roadworks to be within undertaken within agreed road right of way. • Survey and set out to be confirmed and approved prior to commencement of physical works. • Temporary land use: Contractor to negotiate with landowner and ensure agreement is documented. Ensure restoration of site upon decommissioning. 	• Contractor's Site Manager and E&S Specialist
Cultural heritage	<ul style="list-style-type: none"> • Areas of historical or archaeological significance could be discovered and affected (chance finds) 	<ul style="list-style-type: none"> • Location of sites identified and avoided by design and during surveying of the road alignment • Ensure that previously identified cultural sites are not disturbed; • Where objects of archaeological or historical importance are located during construction works, cease construction work and notify the PMU Project Manager who will in turn National Museum and Art Gallery (refer Chance Finds Procedure) 	• Contractor's Site Manager and E&S Specialist and Community Liaison Officer
Public disruption and community health and safety	<ul style="list-style-type: none"> • Disturbances from construction activities, Safety problems • Introduction of small labour force with different attitudes 	<ul style="list-style-type: none"> • Inform local authorities and local landowners of project plans, works schedule and location of proposed works; • Maintain road access for pedestrian and vehicles during construction and repair any damages to roads caused during construction 	• Contractor's Site Manager and Social Risk and Community Liaison Officer

Issues/Potential Impacts	Summary of Assessments of these issues/impacts	Mitigation Measure	Responsible
	<p>resulting in social conflicts</p> <ul style="list-style-type: none"> • Introduced health problems such as SEA/SH and STDs and HIV • Competition for scarce natural resources and food supplies • Movement of heavy machineries and trucks along the work sites pose a risk to the local community safety. 	<ul style="list-style-type: none"> • Provide training to externally-sourced construction workers on the project code of conduct. • Engage qualified service provider to conduct HIV/AIDS and SEA/SH awareness amongst contractors and villages • Provide information to workers and communities on how to raise an SEA/SH complaint and/or access services. • Prohibit workforce from consumption and/or trade in local fauna and flora. • Placement of barriers and walkways along the work sites. • Placement of traffic control signs, traffic signage and traffic signallers along various sections of the construction sites see annex 10.6.6. • Installation of temporally speed humps close to the residential areas to control heavy truck from speeding. 	
Labour and working conditions	<ul style="list-style-type: none"> • Poor employment and conditions for construction workers <ul style="list-style-type: none"> ○ Terms of employment not secured by contractual agreements. ○ Discrimination and lack of equal opportunity. ○ Use of child or forced labour. 	<ul style="list-style-type: none"> • Manage workforce in accordance with PNG labour laws and requirements • Maintain records of recruitment and employment process of contracted workers • Communicate clearly job description and employment conditions to contracted workers; • Ensure no child or forced labour in consultation with men and women community leaders. Preference given to directly impacts households (i.e. those along the road losing assets) and/vulnerable groups. 	<ul style="list-style-type: none"> • Contractor's Site Manager and Social Risk and Community Liaison Officer
ESHS Incidents	<ul style="list-style-type: none"> • Incidents during construction may as spills, injuries, near misses, serious breaches of process, etc. Inadequate incident management can exacerbate the impact of the incident and/or miss an opportunity to learn from the event. 	<ul style="list-style-type: none"> • The CESMP will include incident management procedures, including response, reporting, investigation and corrective action. 	<ul style="list-style-type: none"> • Contractor's Site Manager and E&S Specialist
Emergencies	<ul style="list-style-type: none"> • Potential emergencies that may occur during construction include hazardous materials spills (that have potential to cause serious harm), 	<ul style="list-style-type: none"> • The CESMP will include emergency response procedures, including process to follow in the event of various types of emergencies, contact details for support, etc. 	<ul style="list-style-type: none"> • Contractor's Site Manager and E&S Specialist

Issues/Potential Impacts	Summary of Assessments of these issues/impacts	Mitigation Measure	Responsible
	fire, civil unrest and natural disasters. Inadequate management of the emergency situation can exacerbate the potential impact.		

7.2. Monitoring and Reporting

Monitoring will be undertaken as per the specifications in Table 2. The various forms, procedures, etc. required for monitoring will be included in the CESMP and/or operational procedures.

Reporting will include:

- **Incident** – incidents will be reported by the contractor to the Coffee PMU and the WB. The process for this will be included in the CESMP. Any serious incidents shall be reported as soon as practicable (once the immediate situation has been stabilised) and within 24 hours.
- **Monthly reports** – the contractor will prepare monthly E&S performance reports and provide these to the Coffee PMU. The reporting template will be included in the CESMP. A summary of these reports will also be included in the quarterly report to the WB, and the individual monthly reports supplied to the WB upon request.
- **Semi Annual reports** – the Coffee PMU will continue to provide quarterly reports to the WB as part of the overall PACD Project and include the E&S performance of the Kamborini-Wala feeder road Project.

7.3. Roles and Responsibilities

Resourcing, roles and responsibilities for implementation of the commitments in this LESIA/ESMP are provided in **Error! Not a valid bookmark self-reference..**

The PMU and Contractor staff listed in Table 6 will be responsible for the implementation of this ESMP.

Table 4: Roles and responsibilities for implementation

Organisation	Responsibilities
PMU Senior Engineer Environmental and Social Safeguards Officer Overall responsibility: PMU Manager	Consultation Preparation of LESIA/ESMP Disclosure of LESIA/ESMP liaison with CEPA and obtaining permits (as necessary) Inclusion of E&S requirements in requests for tender (including draft CESMP) Vetting contractors as part of selection process Review/approval of contractor CESMP Overseeing and monitoring contractor E&S performance Quarterly reporting to the WB on E&S performance Support contractor if/when required (e.g., management of grievances, specific training, etc.) Any incident reporting to WB

Construction contractor/s Works Supervisor Site Engineer Health and Safety Specialist Environmental and Social Safeguards Officer Community Liaison Officer Overall responsibility: Contractor Project Manage	Include E&S credentials in response to tender Prepare CESMP Implement CESMP and comply with all project E&S requirements Community liaison and notifications Manage and report incidents and emergency situations should they occur Undertake regular site inspections Monthly reporting to WPNGL PMU on E&S performance Manage grievances (with support from PMU if required)
World Bank	Review LESIA/ESMP Disclose LESIA/ESMP Conduct support missions to ensure that the Project is in compliance with WB E&S requirements Provide ad hoc technical support to the PMU if/when required

Table 5 below provides estimated costs for implementing and monitoring of Environmental and Social Mitigation Measures on monthly basis.

Table 5 Estimated budget for monitoring of Environmental and Social Mitigation Measures

#	Description of Activities	Estimated Cost	Qty	Comments
1	-Training of contractor's staff on the Code of Conduct - General awareness on GRM process for the local community.	K2,000	1	The cost includes transport cost (fuel), Accommodation (number of nights), and per diems for ESSO.
2	Monthly monitoring of Environmental & Social mitigation measures during construction (Over 9- 12 months)	K2,000	12	The cost includes transport cost (fuel), Accommodation (number of nights), and per diems for ESSO.
	Total Cost	K26,000		

8. BENEFICIERIES PARTICIPATION FRAMEWORK AND CONSULTATION PROCESS

A series of extensive consultations and awareness were being held with a wide range of stakeholders in the preconstruction stage. The objectives of these consultations was to inform local communities and the government authorities of the sub-project. And importantly to also gain broad community support from the local communities. The involvement of a wide range of stakeholders helps to identify the key issues in the early stages of project planning, concerns about the project implementation and development of mitigate measures to address the issues identified.

Stakeholders consultation with the host community and local authorities involved the PMU and the communities with appropriate representation of men and women. The views expressed are being incorporated into the ESIA and the project design.

Information and views were gathered during the consultation process include:

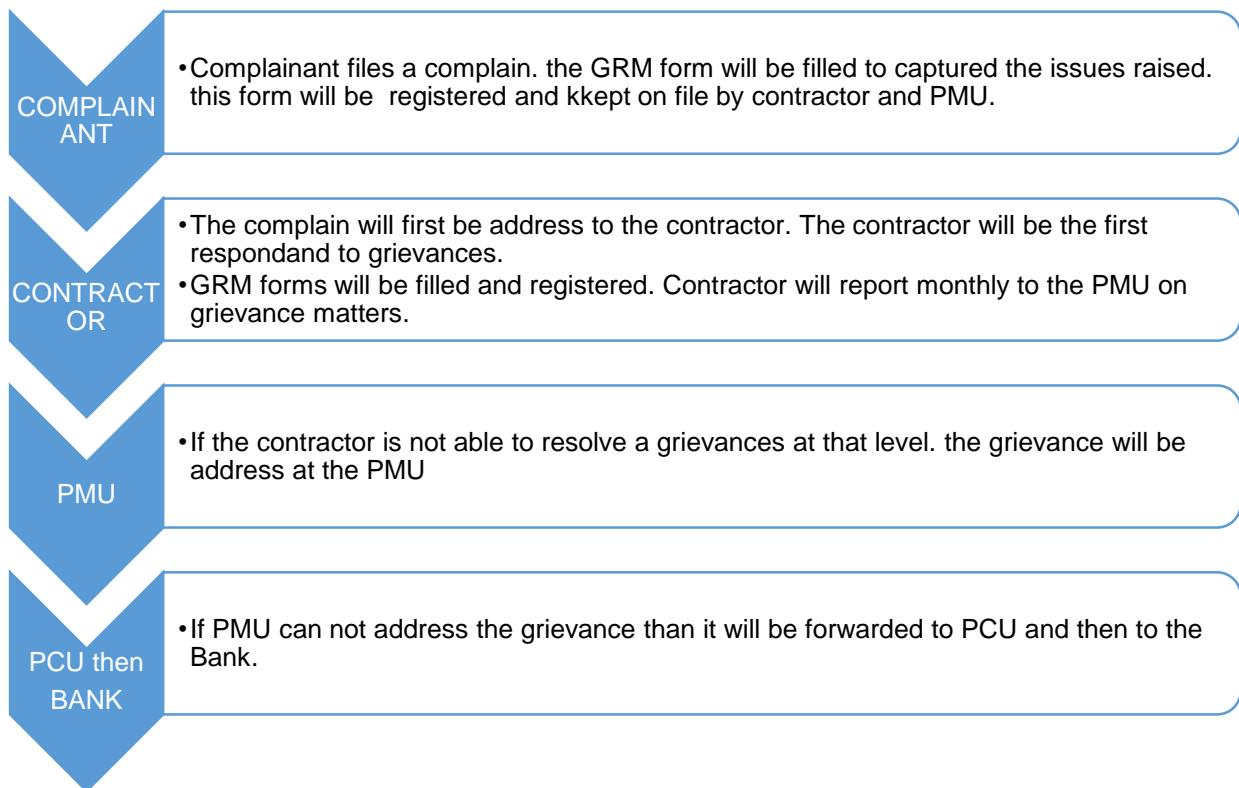
- Local authorities and residents fully support the implementation of the project and are aware of the positive social and economic benefits that the road rehabilitation will bring to their community as well as the temporary and minor potential negative impacts.
- The widening of the existing road alignment does not involve the relocation or destruction of any house or physical asset.
- Local community agreed that no compensation is required. The formal declaration has been provided to this effect through the signing of ROW consent forms and CLUAs.
- Local community members did not express dissatisfaction with the issues that will arise during the construction works such as the noise from equipment and dust.

All the consultation documents are stored at Project Management Unit (PMU) and can be made available upon request by contacting the Project Manager.

Consultations were also carried out with the local communities, including selected residents along the road corridor to identify key concerns and issues as well as improvements to be removed. Landholders along the corridor of influence freely and voluntarily signed the ROW consent forms and CLUA forms to clear the road corridor before contractor move into the area.

9. GRIEVANCE REDRESS MECHANISM

Grievances arising during the construction phase will be addressed through a grievance redress mechanism (GRM) process. The flow chart below shows the Grievance uptake and redress mechanism process.



The contractor is required provide a detailed GRM process in their CESMP.

10. ANNEXES

10.1. Safeguards Screening and Eligibility Checklist

5.5km

ANNEX 2 SAFEGUARD SCREENING FORM AND ELIGIBILITY CHECKLIST (ESMF)

This form is to be used by the PMUs to screen potential environmental and social safeguards issues in subprojects, determine Bank policies triggered and the instrument to be prepared.

Subproject Name	Kamborini - Wala Road
Subproject Location	South Wiro LLE, Pangia
Subproject Proponent	Kori Kopi - PPAP Lead Pav
Subproject Type/Sector	Feed Roads Coffee
Estimated Investment	3.4 million Kina
Start/Completion Date	

Questions	Answer		If Yes WB Policy Triggered	Documents Required if Yes
	Yes	No		
Are the subproject impacts likely to have significant adverse environmental impacts that are sensitive, diverse or unprecedented? Please provide brief description:		No	OP 4.01 Environmental Assessment Category A	Not eligible for financing
Do the impacts affect an area broader than the sites or facilities subject to physical works and are the significant adverse environmental impacts irreversible? Please provide brief description:		No	OP 4.01 Environmental Assessment Category A	Not eligible for financing
Is the proposed subproject likely to have minimal or no adverse environmental impacts? Please provide brief justification.	Yes		OP 4.01 Environmental Assessment Category C	No action needed beyond screening
Is the subproject neither a Category A nor Category C as defined above? Please provide brief justification.	Yes		OP 4.01 Environmental Assessment Category B	Limited ESIA
Are the subproject impacts likely to have significant adverse social impacts that are sensitive, diverse or unprecedented? Please provide brief description.		No	OP 4.01 Environmental Assessment Category A	Not eligible for financing
Will the subproject adversely impact cultural sites? Please provide brief justification.		No	OP 4.11 Physical Cultural Resources	Address in Limited ESIA and incorporate Chance Find Procedures
Will the subproject involve the conversion or degradation of non-critical natural habitats? Please provide brief justification.		No	OP 4.04 Natural Habitats	Not eligible for financing
Will the subproject involve the significant conversion or degradation of critical natural habitats?		No	OP 4.04 Natural Habitats	Not eligible for financing

Does the subproject procure pesticides (either directly through the project, or indirectly through on-lending, co-financing, or government counterpart funding), or will it affect pest management in a way that harm could be done, even though the project is not envisaged to procure pesticides?		OP4.09 Pest Management	Not Eligible for Funding
Does the subproject involve involuntary land acquisition, loss of assets or access to assets, or loss of income sources or means of livelihood? Please provide brief justification.	No	OP 4.12 Involuntary Resettlement	Land Investigation Report/ Clan Land Use Agreement (CLUA)
Are there any Indigenous Peoples' communities present in the subproject area and are they likely to be affected by the proposed subproject negatively or positively? Please provide brief justification.	Yes	OP 4.10 Indigenous Peoples	Consultation Records, MoU or CLUA
Will the project have the potential to have impacts on the health and quality of forests or the rights and welfare of people and their level of dependence upon or interaction with forests; or does it aim to bring about changes in the management, protection or utilization of natural forests or plantations? Please provide brief justification.	No	OP4.36 Forestry	Not eligible for financing
Will the project have the potential to have significant impacts on, or significant conversion or degradation of critical natural forests or other natural habitats?	No	OP4.36 Forestry	Not eligible for financing
Is there any territorial dispute between two or more countries in the subproject area and in the area of its ancillary aspects and related activities?	No	OP7.60 Projects in Disputed Areas	Not applicable
Will the subproject and its ancillary aspects and related activities, including detailed design and engineering studies, involve the use or potential pollution of, or be located in international waterways?	No	OP7.50 Projects on International Waterways	Not applicable

Safeguards Instruments Required

The subproject is classified as a Category B project as per World Bank OP 4.01/ESS1, and the following safeguard instruments will be prepared for the subproject: Tick all that apply:

- Environmental and Social Impact Assessment (ESIA)
- Limited Environmental and Social Impact Assessment (ESIA)
- Environmental and Social Management Plan (ESMP) including Chance Finds Procedures
- Environmental Codes of Practice (ECOPs)
- Integrated Pest Management Plan (IPMP)
- Land Investigation Report (LIR)
- Clan Land Use Agreement (CLUA)

Ineligible Activities

The table below presents activities that may not be suitable for funding under PACD due to safeguards operational policies and national legislation. This list should be used at the outset to provide parameters during scoping and further detailed in the PIM. This exclusion list has been compiled to exclude certain activities that fulfil one or more of the following criteria: (i) high environmental risk; (ii) may create impacts that require more sophisticated planning and preparation of mitigation measures; (iii) have technical complexities and requirements that would go beyond the capacity normally available in-country; (iv) would trigger additional safeguards policies or change the project's safeguards category; and (v) are not aligned with public interests or do not benefit common goods or public services.

Exclusion List (activities that ARE NOT suitable to be funded under PACD) for subprojects:
Construction of new, large-scale infrastructure such as buildings, large dams, seawalls, large-scale irrigation channels, feeder roads and bridges including new feeder roads and abattoirs
Located in a gazetted protected area or vulnerable areas (below sea level, subject to frequent flooding or storm surge, steep slopes, etc)
Located in international waterways (unless with notification to riparian neighbours) or disputed territories
Located in sensitive environments or critical natural habitat (close to waterways, old growth forests, undisturbed virgin forests, high biodiversity areas etc)
Involve significant conversion, clearance or degradation of critical natural habitats, forests, environmentally sensitive areas, significant biodiversity and/or protected conservation zones
May interfere with cultural heritage, sacred sites, graves or archaeological sites
Could result in irreversible damage rare or endangered species and/or non-replicable cultural property, irreplaceable cultural relics, historical buildings and/or archaeological sites
Will result in significant ²⁸ physical or economic displacement of affected communities, loss of main source of livelihood and restriction of access to traditional lands or resources;
Do not meet minimum design standards with poor design or construction quality, particularly if located in vulnerable or unstable areas (e.g. steep slopes) Activities that require:
<ul style="list-style-type: none"> • Relocation or removal of houses, business or permanent structures • Involuntary land acquisition of customary land where suitable government land is available • Extensive²⁹ land or forest clearing or tree felling • Land reclamation or sand mining • Sourcing materials (sand, gravel) from unregistered quarries without monitoring • Use or storage of hazardous materials or toxic chemicals
Involve any political or religious affiliations
Exacerbates the marginalization of certain religious, social or ethnic groups

<p>Activities that benefit or favor one group in the community more than others, or private interests</p> <p>Activities focused on large block-holder or plantations, except when they are used as a base to the delivery of extension, processing and marketing services to surrounding smallholders and benefits to smallholders can clearly be established</p> <p>Research activities, except where there is a clear demand from associated smallholders or private partners to directly assist smallholders</p> <p>Subsidy of transportation costs</p> <p>Mobile assets such as cell phones, laptops, or motor vehicles</p> <p>Overhead and management costs of partners which are not directly and exclusively linked to the new activities</p> <p>Funding of activities through third parties that are not part of the Partnership Agreement or not formally linked with the Lead Partner</p> <p>Will negatively affect long-term sustainability of water sources or natural resources</p> <p>Land that has disputed ownership or absentee landowners that have not been consulted</p> <p>More than 10% of landholdings from any one landowner are needed</p> <p>Private or government housing</p> <p>Sports facilities, playgrounds, etc</p> <p>Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements</p> <p>Purchase of guns; chain saws; large amount of pesticides, insecticides, herbicides and other dangerous chemicals; asbestos, asbestos removal and other investments detrimental to the environment</p> <p>Production or trade in or movement or use of unbounded asbestos fibres</p> <p>Production or trade in pesticides/herbicides subject to international phase outs or bans</p> <p>Production or activities involving harmful or exploitative forms of forced labour / harmful child labour Trade in wildlife or wildlife products regulated under CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) Purchase of logging equipment and commercial logging operations</p> <p>Production or trade in wood or other forestry products from unmanaged forests</p>
<p>Indicative Positive List (activities that ARE suitable to be funded under PACD)</p>
<p>Plans consistent and aligned to national and provincial legislation, policy and planning</p>

Small agricultural inputs (HT barbwire for fencing, post-harvest storage and processing technologies, concrete drying areas ³⁰)
Improvements to village water system and storage (rainwater tanks, collection vessels, small concrete ponds with cover, hoses, water pumps, groundwater wells with lid, gravity-fed systems, PVC piping and spring protection)
Improvements to drainage and water flows, install culverts, canals, gates, closed pipes, irrigation channels, small concrete ponds with cover <5m ²
Reduced coastal and riverine erosion through shoreline protection (e.g. mangrove planting)
Slope stability measures (tree planting etc)
Commercial seed house
Indicative Positive List for Component 5 CERC
Clearance and disposal of debris from roadways and transport networks (trees, vehicles, etc).
Repair drainage systems damaged by the event
Repair roads and bridges
Re-establish telecommunications infrastructure
Stabilise areas of erosion with gabions, replanting and other measures
Replace native vegetation destroyed by the event
Removal of hazardous waste (chemicals, asbestos, etc)
Desalination of water, repair to water infrastructure, delivery of potable water to areas that are cut-off
Bulk storage, land transport, sea transport

Approval I confirm that the subproject does not involve any activities on the ineligible list for PACD and ESSO _____ has responsibility for completing any safeguard documentation before proceeding.

Signed  Date 08/08/23

PMU Representative

Witness  Date 08/08/23

ALEX ANYOP
DISTRICT RURAL AGRICULTURE OFFICER

10.2. Land Investigation Report

Kamborini- Wala Feeder Road Land Investigation Report

A. INTRODUCTION

The land Investigation Report is compiled based on site inspection of the impact area, surveying, taking notes of important features like boundaries, land tenure issues and so forth. Thus, landowners are identified against their proof of existence on the impact land within the defined boundary. It outlines the procedures involved in the identification of the possible impacted areas, landowners and local communities that will be impacted as a result of construction activities.

The sub-project is the rehabilitation of the 5.5km Kamborini to Wala feeder road in the Ialibu-Pangia District of Southern Highlands Province. The stretch of the road covers 2 wards in the South Wiru LLG.

The Land Investigation Report was done based on undertaking all the key requirements and due diligence done by following the guidelines in the PACD project ESMF vol3 – Resettlement Policy Framework. This involved awareness, site inspection of the impact area, surveying, and community agreeing to donate their parcel of land in good faith for the road rehabilitation without any compensation claim, and consultation and interviews with the landowners and recording of improvements within the right-of-way. All rights of owning the land in the area is customary, and protected under the Lands Act (1996).

The report follows the Land Investigation Report template included in the ESMF vol3 – Resettlement Policy Framework, annex 2. However, the format is tweaked to reflect the local context including no compensation for land if community wants the road rehabilitation. No compensation claims in return for development (road rehabilitation/maintenance) approach has really worked well with previous PPAP project, and thus, PACD Coffee PMU is implementing the road project in same fashion to cushion out unnecessary compensation claims for road rehabilitation.

B. DESCRIPTION OF PROJECT ACTIVITIES THAT REQUIRE LAND USE.

This section describes project activities that will require the use of land. Apart from the obvious road rehabilitation activities that will occur within the right of way there are other activities that will require the use of land parcels. These activities are mentioned in the table with description and the required instruments to be prepared.

Table 1. Project Activities that land is required for.

Type of Activity	Description	Approximate land area Need	Instruments/requirements
Road works (earthworks, gabion, drainage etc.)	This refers to the actual road construction works. These activities will occur within the right of way.	a 6m corridor width on the existing road is allocated for these works.	ROW CLUA
Contractor campsite,	Where contractor keeps their machineries and other equipment.	Not known at the moment	CLUA to be signed between the contractor and the rightful landowners.

Quarry or Gravel pit	Area where the contractor will get gravels and base coarse materials for the road	Not know at the moment	CLUA to be signed between the contractor and the rightful landowners.
Stock pile (gravel, stones)	Area where contractor piles aggregates.	Not know at the moment	CLUA to be signed between the contractor and the rightful landowners.
Construction wastes disposal sites	Area where construction wastes from clearing and grabbing is dumped	Not know at the moment	CLUA to be signed between the contractor and the rightful landowners.

Other land required activities will occur when the contract entity start works hence the contractor will be responsible for land acquisitions. The PMU has only carried out due diligence and investigation of the right of way corridor.

C. PROCEDURES FOR RESETTLEMENT

The Project's ESMF vol3 – Resettlement Policy framework outlines the procedures for resettlement and the resettlement safeguard instruments required for the sub-projects involving land, loss of assets and or restriction to assets. Under different scenarios, hence for feeder road rehabilitation the required instruments include:

- Land Investigation Report
- Voluntary Land Donation Protocol
- Right of Way Consent
- Clan land Use Agreement

Hence in order to prepare/meet the requirements the following was involved:

1. Awareness (Consultation)

A broad community awareness was undertaken on the 23rd of August at Marapini Primary School project site, where a vast group of local communities' members gathered. Over a 100 people including women and children attended. Present at the awareness were; ward councilors, peace officers, local village leaders and business man refer to minutes attached.

The World Bank Safeguards requirements and polices were clarified to the community during the awareness. Details of the project design and the impacts both positive and negatives were explained to the community, including impacts on land use or potential damage to food and economic trees and the no compensation policy was elaborated.

The communities where provided with the opportunity to accept or reject the project. Representatives from cross-section of the community were given time to talk or ask questions. Community members including women, men, youths, landowners, clan leaders etc.... were given time to expression their views towards the project. The community understood that the benefits that the road will bring far outweighs the minor negative impacts.

Broad community support was given for the feeder road sub-project, as each representatives thanked the PACD Project for the initiative of rehabilitating agriculture feeder roads and for selecting the Kamborini – Wala Road to be rehabilitated.

A second awareness or community consultation was carried out on the 12th of December 2023 at Karape village, project site, where a total of about 500 attendees; all local villages (landowners) who were present to sign the right of way consent forms. The purpose of this site visit and consultation was for the signing of the Right of way (ROW) consent forms and Clan Land Use Agreement (CLUA) forms.

2. Land Dealings

In order for due diligence to be carried out properly; the ESSO and Senior Civil Engineer had to walk the 5.5km Kamborini to Wala route. These process took a whole day to complete.

Individual consultation was carried out with each and every landowner along the road corridor that had improvements (house, fencing, trees, cash crops, beautification plantings) within the right of way. The no compensation policy was explained to the landowners and also the impacts that will occur during construction. They were asked to freely and voluntarily sign the CLUAs and right of way consent forms to indicated their voluntary donation of land and to declare that they will not hold the PACD project accountable for any removal of improvements within the right of way. The following was considered before landowners signed:

- Land owner(s) offers up land voluntarily for the purposes of the project which would directly benefit the community
- The donation does not severely affect the living standards of the community and/or individual landholder responsible for the donation (i.e. impacts are marginal based on percentage of loss and minimum size of remaining assets);
- Informed consent was established with the landowner(s) before offering the land (i.e. that they had the power of choice in deciding whether or not to donate to the cause or not)
- It has been verified the donation did not result from any form of coercion or manipulation and is offered in good faith;
- Those involved must have traditional authority and customary rights for decision-making about the land parcel
- Due diligence on landowners and users of land donated (including informal arrangements)
- Land offered is not under dispute (i.e. ownership and rights to offer land are clear)

2.1. Right of way Consent

The right of way consent form (see attached) contains signatures of all the community members; every individual who owned land along the 5.5km road corridors as well as others community member that will benefit from the road. Ward councilors and clan leaders also signed the form.

Their consent was given with the understanding that everything within the ROW will be cleared for construction. Also this forms show their acceptance of the sub-project and broad community support for the sub-project.

2.2. Clan land Use Agreement

The CLUA form(s) is an agreement made between the Landowner(s) and the PACD Project Management Unit for the portion of land area to be cleared and used for road construction. The form contains information of the landowner/resource owner, inventory of all the improvements that will be removed and the landowner's signature. The witnesses to this agreement include; the community leaders declaring the that person(s) is the rightful land owner of the foresaid land/resources and representatives of the District government who were the legal governing authority in the area.

Counter signed by the PACD – Coffee PMU ESSO, Senior Civil Engineer and the PMU Project Manager. The agreement was sealed off with stamps from the PMU Project Manager and the District Administrator.

The CLUA forms was to be signed only by person(s) who have improvements of monetary value that encroach into the 6m road corridor width. These landowners'/resource owners where consulted and informed that they had to agree and voluntarily remove the improvements before construction activities took place. The project team together with the landowners and witnesses recorded all the improvement that were to be removed and listed it in the inventory table of the CLUA form however the improvements were not valued because owners were informed that there won't be any compensation for the removal of these improvements hence they had to do the clearance in good faith and voluntarily.

Listing the improvements with monetary values alongside will only raise the owners' expectations of compensation claims.

For the case of the Kamborini to Wala Road; the road corridor from 0.0km to 2.9km is wider than 6m hence no CLUAs was signed for removal of improvements. The landowners were still required to sign the ROW consent form. From 2.9km to 5.5km (end of road) the corridor is narrow with mostly grass (pit pit) covering the road, no improvements within 6m hence only ROW consent form was signed.

D. CONSLUSION

The project team carried out due diligence to understand the type of land rights that exist on the proposed sub-project site and to identify possible impacted areas, landowners and local communities.

The landowners all signed ROW consent forms in good faith and fully comprehend the consequences of the donation. They agree and understand that they will not receive any compensation.


..... Investigating Officer

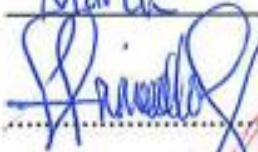
PACD – Coffee PMU Environment and Social Safeguard Officer

RECOMMENDATIONS TO ACCESS AND LAND USE RIGHTS

I, Michael Ariando being the lawfully appointed Lands Officer for the Talibu Pangia District do hereby certify that, in respect of the proposed Agriculture Feeder Road sub-project by the PACD, of Coffee Project Management Unit – Coffee Industry Corporation, the proposed road length is 5.5 kilometers and width 6 meters of customary owned land situated in Ward 1 & 2 of South Wiru LLG in Talibu-Pangia District Southern Highlands Province.

- (a) There is no dispute as to the ownership
- (b) The customary owners of the aforesaid land and the customary owners of all improvements there are willing to grant access and land use rights to the land and improvements to the PACD
- (c) The grant of access and land use rights of the aforesaid land to the PACD will not be detrimental to the best interest of the customary owners or of their descendants either now or in the foresaid future
- (d) I have fully considered the questions of reserving to the customary owners and /or their descendants' rights of hunting, gathering, collecting, fishing, and access and I recommend that no such reservations be made
- (e) The foresaid land is required for a public purpose and it is recommended that the land be used in perpetuity for many years to come.

Given under my hand at March this Friday day of 01st
20 24



LANDS OFFICER



10.3. Public Awareness/Community Meeting Minutes

1ST PUBLIC AWARENESS & CONSULTATION

Kamborini – Wala Road Awareness

Venue: Marapini Primary School

Date & Time (Start-Finish): 23rd August 2023 from 11:30am – 1:00pm

Speakers (in order of speech procession):

1. Joshua Tupa – Senior Education Inspector for Pangia/ former PPAP partner
2. Paster Alex Kipoi – Opening Prayer
3. Eric Aba – Senior Civil Engineer. PACD-CIC
4. Anita Uvovo – Environmental & Social safeguard Officer, PACD-CIC
5. Vincent Mainali – Village Landowner
6. James Kaku – Teacher and local leader
7. Joe Awa – Landowner and local business man

Welcome and Opening remarks: Brian Joshua Tupa
Welcomes the PACD Team, local leaders and the locals.

INFORMATION DISSEMINATED AT THE AWARENESS

The main objective of the Project Awareness is the dissemination of Information to communities that will be impacted by the road project. These information includes; Brief description of Scope of work, World bank safeguards Policies and requirements for the project, roles and responsibilities of contractor, communities and other parties that will be part of the road construction phase.

Prevent potential adverse social impacts of the project as well as adverse impacts of the community towards the road project, by managing social risks, and promote social inclusion. Safeguard the interests and rights of stakeholders and project beneficiaries. Address questions and queries by local communities

*******Speakers*******

1. Senior Civil Engineer

- A. Explained and described the Scope of Work that will take place.
 - i. Description of the road design and the types of civil work activities that will take place during construction phase and how long it will take.
 - ii. Explained that the road will be constructed according to department of Works Standards and specifications which means that the road can last up to 20 years if there are periodic maintenances.
- B. General information on the funding and Implementing Agencies of the sub-project.
 - i. The PNG Agriculture Commercialization and Diversification Project is a World Bank Funded project through the Coffee Industry Corporation. There are 5 components under the PACD project of which component 2 is the rehabilitation of agriculture feeder roads. The objective of this component is to improve access to

value chains and markets for farmers through rehabilitation and maintenance of priority agriculture feeder roads in selected targeted provinces.

- ii. The PACD Project Management Unit based in Goroka CIC office will oversee the Implementation of this subproject through supervision, monitoring and reporting.
- C. Process of Tendering awarding contracts to potential contracting entities.
- i. The selection of a contracting entity will have to go through public tender and follow several process before a construction company is selected.
 - ii. The potential contracting entities applying will also have to meet several world Bank requirements and the top ranked will be awarded the contract.

2. Environment and Social Safeguard Officer

- A. Explained World bank safeguards Policies and requirements for the project.
- i. Detailed explanation of the Right of Way Consent Form and Clan Land Use Form and the importance of free and voluntarily land donations.
 - ii. Furthermore, stressed on the No Compensation Policy for any improvement removal along the right-of-way. Landowners will sign the ROW consent forms and the CLUA forms to give their consent, freely and voluntarily.
- B. Roles and responsibilities of contractor, communities and other stakeholders that will be part of the road construction phase.
- i. The contractor's works will be guided by an ESMP in order to avoid or minimize adverse environmental and social impacts, and how to handle/resolve grievances.
 - ii. Prevent potential adverse social impacts of the project as well as adverse impacts of the community towards the road project, by managing social risks, and promote social inclusion through employment opportunities for the locals.

3. Vincent Mainali – Village Landowner

From Marapini Village, thanked the PACD Project and CIC for selecting the Kamborini Wala Road to be rehabilitated. Pledge the support of the local people of Marapini village towards the project.

4. James Kaku – Teacher and local leader

Local Leader and elementary teacher at the Marapini Elementary school stressed on the importance of the rehabilitated road and the benefits it will have on the locals especially the women and children having ease of access to basic services. Also urges the community to support the project.

5. Joe Awa – Landowner and local business man

From Wala village where the road ends. Very grateful for the project and pledge to support the construction works and assures the PACD team that from his section onward there won't be any disturbances during road works.

Kamborini – Wala Road Awareness Pictures



Top: Senior Civil Engineer with Community Leader at Marapini Primary School at the Awareness

Left: Joshua Baki, Ialibu Pangia District Senior Inspector, who assisted PACD Team with awareness.



Crowd at the Awareness. Marapini Primary School. Total of 106 people attended the awareness excluding children.













Name: ANITA UOVOVO

Signature:

Kamborini Wala Feeder Road Project
LESIA & ESMP









PNG AGRICULTURE COMMERCIALIZATION AND DIVERSIFICATION PROJECT
PUBLIC CONSULTATION & AWARENESS ATTENDANCE SHEET

PLACE Marapini - South Wira LLG DATE: 23/09/20

No	NAME OF PARTICIPANT	GENDER	DESIGNATION	VILLAGE, WARD/LLG	SIGNATURE
1	JAMES KAKU	M	TEACHER	MARAPINI	
2	PAUL ULO	M	COUNCILLOR	MARAPINI	
3	TANGUE YAMU	M	COUNCILLOR	WIRE	
4	PHILIP AUKA	M	PEACE OFFICER	KARAPE	
5	MICKAL BULUMIA	M	PEACE OFFICER	KARAPE	
6	ANTON LAMA	M	PEACE OFFICER	KARAPE	
7	JOHN KOKELE	M	SECRETARY TO COMM. DEVE OFFICE	KARAPE	
8	FEBIAN YAKI	M	PASTOR	KARAPE	
9	RODNY KOKELE	M	TEACHER	KARAPE	
10	NELSON NARE	M	VILLAGER	KARAPE	

PNG AGRICULTURE COMMERCIALIZATION AND DIVERSIFICATION PROJECT
PUBLIC CONSULTATION & AWARENESS ATTENDANCE SHEET

PLACE _____ DATE: _____





No	NAME OF PARTICIPANT	GENDER	DESIGNATION	VILLAGE, WARD/LLG	SIGNATURE
11	PEX KIPOI	M	VILLAGER	MARAPINI	
12	BENY PINE	M	VILLAGER	MARAPINI	
13	MIKE PINE	M	VILLAGER	MARAPINI	
14	JOE YOPO	M	VILLAGER	MARAPINI	
15	ANDREW WASON	M	VILLAGER	MARAPINI	
16	ALEX PORIA	M	VILLAGER	WIRE	
17	SENDRIK PORIA	M	VILLAGER	WIRE	
18	MARK NARE	M	VILLAGER	MARAPINI	
19	MAINA PORIAI	M	VILLAGER	MARAPINI	
20	MIKE LIMBIA	M	VILLAGER	KARAPE	
21	SILA FEBIEN	FM	PS MERI	KARAPE	

Kamborini Wala Feeder Road Project
LESIA & ESMP

PNG AGRICULTURE COMMERCIALIZATION AND DIVERSIFICATION PROJECT
PUBLIC CONSULTATION & AWARENESS ATTENDANCE SHEET

PLACE _____

DATE: _____

No	NAME OF PARTICIPANT	GENDER	DESIGNATION	VILLAGE, WARD/LLG	SIGNATURE
22	SIMON KALIA	M	TEACHER	MARAPINI	
23	TALÉKA UNDE	M	LEADER	MARAPINI	
24	LÉNT YAPO	M	VILLAGER	MARAPINI	
25	NABA YAPO	M	VILLAGER	MARAPINI	
26	MARANA TOROMA	M	VILLAGER	MARAPINI	
27	PUNDIRA WERE	M	VILLAGER	MARAPINI	
28	DANIEL PMA	M	VILLAGER	MARAPINI	
29	JOE WIAI	M	VILLAGER	MARAPINI	
30	DEN PIA	M	LEADER	MARAPINI	
31	PAIS PIA	M	VILLAGER	MARAPINI	

PNG AGRICULTURE COMMERCIALIZATION AND DIVERSIFICATION PROJECT
PUBLIC CONSULTATION & AWARENESS ATTENDANCE SHEET

PLACE _____

DATE: _____

No	NAME OF PARTICIPANT	GENDER	DESIGNATION	VILLAGE, WARD/LLG	SIGNATURE
53	DAI YAMBA	M	VILLAGER	MARAPINI	
54	SIWI YAMBA	M	VILLAGER	MARAPINI	
55	NIKI WERE	M	VILLAGER	TURUMUNI	
56	MARTINA WARUBI	M	HOUSE WIFE	MARAPINI	
57	GRACE MATHEN	FM	HOUSE WIFE	MARAPINI	
58	ROSA YAMBA	FM	HOUSE WIFE	MARAPINI	
59	RITA SIMON	FM	HOUSE WIFE	MARAPINI	
60	LOPAI KEN	FM	HOUSE WIFE	MARAPINI	
61	TOPI POTO	M	PASTOR	MARAPINI	
62	LUKE KIPOI	M	PASTOR	MARAPINI	
63	TEST PMA	M	VILLAGER	MARAPINI	







PNG AGRICULTURE COMMERCIALIZATION AND DIVERSIFICATION PROJECT
PUBLIC CONSULTATION & AWARENESS ATTENDANCE SHEET

PLACE _____ DATE: _____

No	NAME OF PARTICIPANT	GENDER	DESIGNATION	VILLAGE, WARD/LLG	SIGNATURE
64	NICKI WERE	M	VILLAGER	TURUMINI	
65	ANKUS PAWA	M	VILLAGER	TURUMINI	
66	MOLIK PAWA	M	VILLAGER	TURUMINI	
67	PAUL YAKRA	M	TEACHER	TURUMINI	
68	SARUFA KUPI	M	VILLAGER	TURUMINI	
69	ALBERT WERE	M	TEACHER	MARAPINI	
70	JONNY EPEI	M	TEACHER	WIRE	
71	PENY SIMON	FM	TEACHER	TURUMINI	
72	ROBIN ISSUA	M	TEACHER	POLOKO	
73	JVAN LIRIA	M	TEACHER	PAHYAMA	

PNG AGRICULTURE COMMERCIALIZATION AND DIVERSIFICATION PROJECT
PUBLIC CONSULTATION & AWARENESS ATTENDANCE SHEET









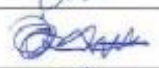

PLACE _____ DATE: _____

No	NAME OF PARTICIPANT	GENDER	DESIGNATION	VILLAGE, WARD/LLG	SIGNATURE
74	JOSEPH KELLY	M	TEACHER	WERIKO	
75	MOXY TANGUE	M	TEACHER	WIRE	
76	TIMOTHY LAMA	M	TEACHER	WILIANE	
77	PAHIATMA LAMA	M	VILLAGER	WIRE	
78	WATSON TANDEKA	M	TEACHER	WIRE	
79	RONSON WIPA	M	TEACHER	WIRE	
80	SEPIK MANDY	M	VILLAGER	WIRE	
81	PAIS MANDY	M	VILLAGER	WIRE	
82	ALBERT KURUE	M	PASTOR	WIRE	
83	KINDER LAMPA	M	VILLAGER	WIRE	
84	KUMBIA TULIA	M	VILLAGER	WIRE	

Kamborini Wala Feeder Road Project
LESIA & ESMP

PNG AGRICULTURE COMMERCIALIZATION AND DIVERSIFICATION PROJECT
PUBLIC CONSULTATION & AWARENESS ATTENDANCE SHEET

PLACE _____ DATE: _____

No	NAME OF PARTICIPANT	GENDER	DESIGNATION	VILLAGE, WARD/LLG	SIGNATURE
85	JOE AWA	M	TEACHER	WALA	
86	PAIS MARIO	M	TEACHER	WALA	
87	KEPAS TAU	M	PEACE OFFICER	WALA	
88	YOPKO MUKUNUA	M	VILLAGER	LOANU	
89	KEPE	M	VILLAGER	LOANU	
90	PINDIA TAU	M	VILLAGER	LOANU	
91	NANDIE KAMA	M	VILLAGER	WALA	
92	TRLEPO	M	LOANU	WALA	
93	REX KAMA	M	TEACHER	WALA	
94	EPEI KENDO	M	PEACE OFFICER	WIRE	

KAMBORINI-WALA Road Awareness

PNG AGRICULTURE COMMERCIALIZATION AND DIVERSIFICATION PROJECT
PUBLIC CONSULTATION & AWARENESS ATTENDANCE SHEET

PLACE Marapini Primary School DATE: 23rd/08/23
South Wiru LLG

No	NAME OF PARTICIPANT	GENDER	DESIGNATION	VILLAGE, WARD/LLG	SIGNATURE
95	FELIX WAPA	M	TEACHER	SOUTH WIRU	
96	JUSTIN APUKA	M	COUNCILOR	MARAPINI	
97	MIKE KEGERIA	M	VILLAGER	WILIANE	
98	GARRY KOKA	M	VILLAGER	WILIANE	
99	PAIS GARRY	M	VILLAGER	WILIANE	
100	TOMAS DAN	M	VILLAGER	TIMBARI	
101	PETER PIA	M	VILLAGER	PATYIMUA	
102	ELLEN TAPELA	FM	HOUSE WIFE	MARAPINI	
103	LUKE KOMBI	M	VILLAGER	TAIKOPINI	
104	MARK IKO	M	VILLAGER	TAIKOPINI	
105	ELLEN KOMBI	FM	HOUSE WIFE	TAIKOPINI	
106	MAINALI TOROI	M	KEREPAI LEADER		

10.4. Signed Right of Way Consent

Annex 3 Right-Of-Way Consent Form FEEDER ROAD INFRASTRUCTURE

KNOW ALL PERSONS BY THESE PRESENTS:

1. That WE, the owners and/or holders of rights or interests of the lands portions of which are to be occupied and/or traversed by the:

Rehabilitation of the 5.5km Kamborini - Wala Feeder Road

(Write the name of the infrastructure. The Name should be reflective of its type, dimension or other attributes.)

located in: 6 wards in South Wiru LLG, Ialibu - Pangia District, STP

(Name of village, wards and LLG)

in the Province of:

Ialibu - Pangia District, STP.

(Name of district and province)

and hereinafter referred to as the PROJECT, hereby, for the benefit of the general public and in consideration of the need of our communities for the said PROJECT, and to facilitate its construction and future maintenance, individually and collectively transfer and henceforth waive all rights to the said portions of the affected lands, including any crops, trees and other improvements currently found therein, in favor of the respective Wards in whose territorial jurisdictions the aforesaid land portions belong.

2. That the specific locations, areas in square meters, and dimensions of the aforesaid portions of lands are delineated in attached Site/ROW Survey which is consistent with the final Detailed Engineering Design and Technical Drawings of the PROJECT as approved for funding under the PNG Agriculture Commercialization and Diversification Project.
3. That none of the lands constitute over 25% of our total landholdings and no homes would be fully relocated.
4. That this waiver is executed freely and voluntarily based on our understanding of the plans and objective of this PROJECT which was fully explained to us in a series of consultations.
5. That we hold neither the Wards nor the PNG Agriculture Commercialization and Diversification Project any liabilities in terms of payments on the said portions, improvements, crops and structures therein.
6. That prior to the construction we be allowed to harvest and/or salvage any crops, trees and materials and assisted by the benefited communities to dismantle and restore affected physical structures.
7. That in the event that any of the said portions of land are for whatever reasons not used by the PROJECT, the rights hereby waived on the said portions not used by the PROJECT shall be deemed automatically restored to their original owners. IN WITNESS WHERE OF, we have

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hereunder subscribed our names and signatures on the day of
2023 at Papua New Guinea.

Donors (impacted Community members & Landholders)



Name	Ward	Signature
NICKSON MAINALI TOROPO	KERAPALI	
Timothy Telepo	Tunoloi	
PAUL TOROMA	Marapini (2)	
STANLEY AGUS	KERAPALI	
RUBNI LUAPA	MARAPINI	
DANNY YALOMA	Marapini (2)	
ANTON LAMA	Marapini (2)	
Alex Kipoi	Marapini 2	
DAVID KERU	MARAPINI 2	
SEBRACH Anton	Marapini (2)	
Peter Lapa	"	
MIKE TANDA	(11)	
TOROMA KUNUKUNU	"	X X X
ANDA Kaila	Tunda	
TORA Leke	Marapini	✓
TIRIPI LEKE	Marapini	✓




PETER KOKE	Tunda	
JOCKA AUKA	Marapini (2)	
PHILIP AUKA	"	
KONIK Richard	"	
KIPOI KERU	"	
JAMES KAKU	"	
JAYDEN James	"	
TUBAI James	"	
Freedy Kipoi	"	
TEE K Kipoi	"	
JOHN PINE	"	
SIMON JOHN	"	
WAKE WILAI	"	
WAKE DAKUS	"	
WANITA WILAI	"	
BENJAMIN JOHN	"	
MIKE JOHN	"	
WAKOI MIKE	"	
CHRISTOPHER MIKE	"	

Jeremiah John	marapini (2)	
Rex Waki	Marapini (2)	
Raymond Tame	Marapini	
PS Jimung Wemir	Marapini	
Gipson Yondi	Marapini (2)	
Jacob Waimba	Marapini	
PAIS PIA	MARAPINI	
MATHEW KILINGA	MARAPINI	
JOHN Pumi	KMARAPINI	
SIMON JAMES	MARAPINI	
JOE SAMUEL	MARAPINI	
Ken TEPI	MARAPINI	
KEPOI KERU	MARAPINI	
RAKA KOROI	MARAPINI	
NELSON PEDA	MARAPINI	
ANDREW PAWA	MARAPINI	
FRANK KENI	MARAPINI	
Freedy PEA	MARAPINI	

PANDIK M.		
Moses PORIA		
SARUPTOR		
Tunda		
Nicky Punde		
Mathew MIRIE		
MOSES TEPI		
MOSES ELEWA		
SOMIN TEPI		
CENTRICK PORIA		
TAKE TOWAPE		
PAKEPO TAU	WALA/WANU	
JOE AWA	WALA/WANU	
JACKY WAMI	WALA/WANU	
Michael KAIYAPE	WALA/WANU	
BEN PEPA	WALA/WANU	
PAIS RARIO	WANA	
TO KAPA	TIMBARI	
TALKA / CAICUK	UNDIYAPU	

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TOM TREPI	YOXA	
Council KIGILI KIGILI	YAKILIYDU	✓
Village chairman KAGANI	WALA	

WARD COUNCILS		
Name of Ward Councilor	Ward	Signature
Magistrate PHILIP AUKO	W D (2) Marapini	
ANTON LAMA (P.S.GD)	Marapini (2)	
ANDA Kaita (P.S.GD)	Tanda	✓
TIRUPI LEKE (V.C-Magistrate)	Marapini (2)	XXX
PAUL ULO Councilor	Marapini	
PIZNU!		

Noting Follows

ACKNOWLEDGEMENTS

10.5. Signed Clan Land Use Agreement.

No CLUAs were signed.

The first 2.9km of the road is wider than the required 6m corridor, the landowners only signed the ROW consent form. From 2.9km onwards to the end of the road. The entire stretch was covered in grass (pit pit) and no monetary fauna and trees was identified to be affected by the contractions activity hence no CLUA was signed for this section as well.

10.6. CESMP Template

This is an indicative outline for a Contractor ESMP (CESMP). Contractors may use their own CESMP format, or a modified version of this template.

Introduction

Include objectives of the C-ESMP.

Project Description

- Project location, including maps, photos and drawings.
- Descriptions of the sensitive receptors in the vicinity of the project.
- Detailed description of contractor's scope of work.
- Overview of the activities that will occur.
- Details of material and labour requirements.
- Details of any accommodation requirements for the contractor workforce.
- Details of aggregate requirements and where these will be sourced, including volumes from each supplier.

Legal and Other Requirements

Overview of WB requirements, PNG regulations and any WPNGL internal procedures that apply to the contractor's scope.

Potential Impacts and Mitigation Measures

Table listing the potential environment and social impacts of the contractor's scope of work and how they are proposed to be mitigated. These will come from (but not limited to) the EMP and SMP tables provided in the LESIA/ESMP.

Risks and Impacts	Mitigation Measures	Responsibilities	Timing	Monitoring

Community Liaison

Details of any planned stakeholder consultation as part of the contractor's scope. For example, keeping community informed of construction schedule, confirming details of any planned community events that need to be considered (worked around), community health and safety, grievance redress mechanism, potential job opportunities for local people, etc.

Waste Management

Inventory of waste types likely to be generated and how they will be managed, including any specific storage and handling requirements.

Occupational Health and Safety

A completed risk assessment that identifies the occupational risks/hazards associated with the contractor's scope and explains how these will be managed. The mitigations may refer to existing contractor OHS systems (if adequate) and these can be appended to the CESMP.

Inspections and Monitoring

This section lists the inspections and monitoring to be undertaken, responsibilities for undertaking the inspection/monitoring and how they will be recorded. This would include, but not be limited to, daily site walk-arounds, weekly site inspections, etc.

Training

This section lists the training to be undertaken, responsibilities for undertaking the training and how it will be recorded. This would include, but not be limited to, site inductions, toolbox talks, job/task-specific training, first-aid training, GBV/SEAH awareness training, etc.

Emergency Response and Incident Management

This section will include the process to follow in the event of various types of incidents (e.g., fire, large spill, electrocution, other injury, motor vehicle incident, etc). It will include:

- Locations of first aid kits, spill kits, eye wash facilities, etc.
- Contact details for medical and other emergency assistance.
- Initial notification requirements.
- Investigation and reporting requirements.

Grievance Redress Mechanism

Details of the contractor's Grievance Redress Mechanism (GRM).

Responsibilities

Details of responsibilities for implementing the CESMP.

10.6.1. Grievance Redress Mechanism

Objective: The objective of this grievance redress mechanism (GRM) is to provide affected people with avenues for making a complaint or resolving any dispute that may arise.

Process: All grievances will be recorded by the nominated grievance focal point at site [insert role / name] using the Grievance Registry Form and entered in the Grievance Registry Database.

Grievances should be resolved at the site level, where practicable and within the control of the Contractor and the actions taken to resolve the grievance recorded in the Grievance Registry Form. Where the grievances cannot be resolved by the Contractor, they will be forwarded to the PMU representative [insert role / name] for action.

All grievances of a serious nature (including any grievances related to allegations of sexual harassment, sexual abuse, violence, etc.) must be immediately reported to PMU for their investigation and management

Reporting: A summary of grievances and their status will be included in the monthly environment report to PMU and copies of the completed Grievance Registry Forms and Grievance Registry Database made available to PMU upon request.

Awareness: The process for lodging grievances will be explained to the public and other stakeholders at awareness sessions before the start of, and throughout construction activities. All workers from the Contractor will also be made aware of the process for lodging grievances through toolbox talks, etc., so they are able to respond appropriately if a member of the public approaches them in relation to a grievance.

Grievance Registry Form

This Grievance Registry Form is filled in by the Grievance Focal Point when grievances are brought to them for consideration. Copies of this form will be filled in hardcopy and/or electronically, and all grievances will be later entered into the Grievance Registry Database. There will also be the option of lodging a hard copy grievance form in a box without requiring interaction with a staff member.

All grievances of a serious nature must be reported to PMU immediately

Unique grievance number (e.g., G001): _____

Date: _____

Name of person with the grievance: _____ Phone: _____

Village or residence of person with grievance: _____

Date of Occurrence: _____ Time of Occurrence: _____

Witnesses (if applicable): _____

Project people involved (if applicable): _____

Grievance category:

	Environmental (noise, dust, spill, odour, etc.)		Unsafe work practice
	Asset damage		Employment or contracting dispute
	Inappropriate behaviour		Road closures
	Information request		Other, specify:
	Land dispute		

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Grievance Registry Database

This database can be kept in hardcopy in a folder in the site office or electronically with the grievance focal point and/or other Senior Site Personnel

Grievance number	Date of grievance	Name of person with grievance	Phone number	Village / residence	Grievance category	Summary of grievance description	Action(s) taken to resolve grievance	Date(s) feedback provided	Status (open / closed)
G001									
G002									
G003									
G004									
G005									
G006									
G007									

10.6.2. Incident Reporting Protocol

Objective: The objective of this incident reporting protocol is to provide contractor site personnel with the processes to follow to report and investigate incidents, including implementation of corrective action.

Resources: The site EHS specialist should lead the incident reporting and investigation process, with support from all personnel involved in the incident. Senior site personnel and/or senior (non-site based) EHS personnel may also be required to support (e.g., for serious/complex incidents and/or where personnel involved in the incident are not cooperative).

Process:

1. Incident occurs.
2. Incident witness or party involved activates emergency response, if required. The priority in any incident should be the safety of workers and the community.
3. Incident witness or party involved notifies senior site personnel and EHS specialist.
4. In the event of a serious incident, EHS specialist verbally notifies the PMU Project representative as soon as possible. All other incidents must be reported to PMU within 24 hours. PMU will report incidents to the World Bank as per their existing procedures.
5. Once a situation is under control, the EHS specialist completes the “Initial Report” section of the Incident Report Form with as much information as possible and provides this to the PMU Project representative within 24 hrs of the incident occurring.
6. The EHS specialist undertakes an investigation in conjunction with the relevant parties to determine the root cause of the incident and develop corrective actions to prevent a re-occurrence.
7. The EHS specialist completes the “Final Report” section of the Incident Report Form and provides this to the PMU Project representative.
8. Details of the incident are entered in the Incident Registry Database and corrective actions tracked to closure.

Reporting: A summary of all incidents and their status (e.g., status of investigation and corrective action implementation) will be included in the monthly environment report to PMU and copies of completed Incident Reports and Incident Registry Database made available to PMU upon request.

Incident Report Form

Incident Report Number: _____ (e.g., IR001, IR002, etc.)

Initial Report (to be completed within 24 hours)

1. Incident details

Date of incident:		Project name:	
Time of incident:		Contractor name:	
Person who notified of the incident (internally):		Person who reported the incident to PMU:	
Date of incident notification:		Date of incident reporting (to PMU):	
Time of incident notification:		Time of incident reporting (to PMU):	

2. Type of incident (check all that apply)

- | | | |
|---|---|---|
| <input type="checkbox"/> Fatality | <input type="checkbox"/> Equipment & tools | <input type="checkbox"/> Theft |
| <input type="checkbox"/> Lost time injury | <input type="checkbox"/> Asset damage (contractor) | <input type="checkbox"/> Vandalism |
| <input type="checkbox"/> Restricted duties | <input type="checkbox"/> Asset damage (third party) | <input type="checkbox"/> Assault |
| <input type="checkbox"/> Medical treatment | <input type="checkbox"/> Flora & fauna | <input type="checkbox"/> Kidnapping |
| <input type="checkbox"/> First aid | <input type="checkbox"/> Hazardous substance spill | <input type="checkbox"/> Threatening behaviour |
| <input type="checkbox"/> Light vehicle | <input type="checkbox"/> Pollution of water course | <input type="checkbox"/> Serious non-compliance |
| <input type="checkbox"/> Heavy mobile equipment | <input type="checkbox"/> Fire | <input type="checkbox"/> Other: _____ |

3. Description of the incident

What is the incident?
 What were the conditions or circumstances under which the incident occurred (if known)?
 Are the basic facts of the incident clear and uncontested, or are there conflicting versions? What are those versions?
 Is the incident still ongoing or is it contained?
 Have any relevant authorities been informed (if required)?

4. Immediate actions taken in response to the incident

This may include spill clean-up, transfer of injured party to hospital, containment of a fire, providing community with clean drinking water, etc.

--

Final Report (to be completed after investigation complete)

5. Immediate actions taken in response to the incident

<p>Where and when the incident took place Who was involved, and how many people/households were affected What happened and what conditions and actions influenced the incident What were the expected working procedures and were they followed? Did the organization or arrangement of the work influence the incident Were there adequate training/competent persons for the job, and was necessary and suitable equipment available What were the underlying causes; were there any absent risk control measures or any system failures</p>
--

6. Corrective actions

To be tracked to closure through the Incident Registry Database

Corrective action	Responsible party	Target close-out date

7. Attachments

Provide list of attachments – this would include (as relevant): photos of the incident scene and/or injuries, witness statements, medical reports, etc.

Number	Attachment
1	
2	
3	
4	

8. Form completed by

Name:		Role:	
Signature:		Date:	

Incident Registry Database

This database can be kept in hardcopy in a folder in the site office or electronically with the EHS specialist at site.

Incident report number	Date of incident	Incident type(s)	Summary of incident	Summary of incident cause	Corrective action(s)	Date completed	Status (open / closed)
IR001							
IR002							
IR003							
IR004							
IR005							
IR006							
IR007							
IR008							

10.6.3. Emergency Response Procedure

Objective: The objective of this emergency response procedure is to provide site personnel with the processes to follow in the event of an emergency. This ERP will be used by *[insert contractor name]* for their work on the *[project name]*.

The following events or situations may occur and require an emergency response:

- Fire
- Earthquake
- Severe storm
- Flood
- Hazardous substance spill
- Significant security incident (e.g., armed / violent robbery, carjacking, kidnapping)
- Civil unrest
- Significant injury or medical episode

Emergency contacts:

Organisation	Key contact	Contact details
[insert contractor name]	[insert contractor's senior site role, e.g., Site Supervisor]	[insert phone number]
[insert contractor name]	[insert contractor's senior site role e.g., Project Engineer]	[insert phone number]
[insert contractor name]	[insert contractor's site EHS role e.g., EHS Specialist]	[insert phone number]
PMU	Project representative, <i>[insert name]</i>	[insert phone number]
Police Station	[insert role and name]	[insert phone number]
District Hospital	[insert role and name]	[insert phone number]
CEPA	[insert role and name]	[insert phone number]
Town administration	[insert role and name]	[insert phone number]

Urban LLG	[insert role and name]	[insert phone number]
[others if applicable]	[insert role and name]	[insert phone number]

Mitigations:

- The emergency contact list will be kept up-to-date; printed copies displayed at the site office, laydown area and camp; and key contacts saved in the phones of senior site personnel.
- Fire extinguishers, spill kits and first aid kits will be on all mobile machinery and at the site office, laydown area and camp.
- Materials Safety Data Sheets (MSDS) will be maintained in Tok Pisin and English in all hazardous materials / waste storage areas.
- At least two senior site personnel will have up-to-date first aid training.
- Emergency response-related toolbox talks will include:
 - Spill prevention and response.
 - How to use a fire extinguisher.
 - Basic first aid.
 - How to respond to potentially violent security incident, such as carjacking, armed robbery (e.g., comply with demands).

Response:

The following is general guidance only. Each emergency scenario will be unique and require assessing based on the actual situation. The priorities in any emergency are:

- **First priority:** safety of people (workers and the community).
- **Second priority:** protection of the environment.
- **Third priority:** protection of assets.

Fire

The general steps to follow in the event of a fire are:

1. Raise the alarm for people to evacuate and move away from the area.
2. If safe to do so and relevant, activate any emergency shut down procedures.
3. If it's a small fire and safe to do so, use a fire extinguisher to try to control the fire. If it's a large fire do not attempt to control it, retreat to a safe distance.
4. Call [insert appropriate agency for response in the District] (if assistance is required) and supervisor.

Earthquake

If inside, personnel should:

- Drop, cover (under a sturdy table or piece of furniture) and hold on.
- Stay indoors until the shaking stops and you are sure it is safe to exit.
- Exit once the shaking stops. Remaining in a damaged building after an earthquake is dangerous.

If outside, personnel should:

- Stay outside.

- Move away from items that may fall (such as buildings, power lines, trees, etc.).

Severe storm

In the event of a severe storm, or impending severe storm, project works will cease, and local workers return to their homes (where safe to do so), or shelter in the camp office / camp until safe to return home.

If time permits, loose objects will be secured to prevent them becoming airborne in strong winds.

Flood

In the event of a severe flood, or impending severe flood, project works will cease, and local workers return to their homes (where safe to do so), or shelter in the camp office / camp until safe to return home.

If time permits, equipment, tools and machinery that are in locations at risk of becoming inundated (e.g., the raw water intake site, [add others if applicable]) will be moved to a secure area where the ground is higher.

Hazardous substance spill

The general steps to follow in the event of a spill are:

1. Call supervisor for assistance / back-up.
2. Identify the substance and assess the risks.
3. Put on appropriate PPE (e.g., gloves, safety glasses).
4. Stop the spill at the source (e.g., turn off a tap, upturn a fallen over container, plug a leak).
5. Contain the spill by placing something downstream of the spill to prevent it spreading, focusing on preventing the spill entering a drain or watercourse.
6. Clean up the spill and treat any clean-up materials as hazardous waste.
7. Remediate the area, if required.

If the spill poses a threat to the community (e.g., spill covers food gardens), the community should be notified as soon as practicable.

Significant security incident (armed / violent robbery, carjacking, kidnapping)

In the event of a serious security incident, workers should remain as calm as possible and comply with the demands of the person making the threat (e.g., hand over a vehicle, tools, phone, etc), remembering that assets are replaceable, but people are not.

The police should be contacted when it is safe to do so, or as soon as possible if the threat escalates and immediate support required.

Civil unrest

In the event of a civil unrest (e.g., rioting, tribal fighting), project works will cease and local workers return to their homes (where safe to do so), or shelter in the camp office / camp until safe to return home. Gates to any secure sites should be locked.

The police should be contacted if immediate support required.

Significant injury or medical episode

In the event of a serious injury or medical episode the “DRS ABC” principle of first aid should be followed:

- **Danger:** always check the danger to you, any bystanders and then the injured or ill person. Make sure you do not put yourself in danger when going to the assistance of another person.
- **Response:** is the person conscious? Do they respond when you talk to them, touch their hands or squeeze their shoulder?
- **Send for help:** call the onsite first aider, call the hospital.

(The following steps should preferably be done by the onsite first aider and follow the training they were provided, which may differ slightly from the guidance provided below)

- **Airway:** Check that the airway is open and clear.
 - If the person is responding, they are conscious and their airway is clear, assess how you can help them with any injury.
 - If the person is not responding and they are unconscious, you need to check their airway by opening their mouth and having a look inside. If their mouth is clear, tilt their head gently back (by lifting their chin) and check for breathing. If the mouth is not clear, place the person on their side, open their mouth and clear the contents, then tilt the head back and check for breathing.
- **Breathing:** check for breathing by looking for chest movements (up and down). Listen by putting your ear near to their mouth and nose. Feel for breathing by putting your hand on the lower part of their chest. If the person is unconscious but breathing, turn them onto their side, carefully ensuring that you keep their head, neck and spine in alignment. Monitor their breathing until you hand over to the ambulance officers.
- **CPR (cardiopulmonary resuscitation):** if an adult is unconscious and not breathing, make sure they are flat on their back and then place the heel of one hand in the centre of their chest and your other hand on top. Press down firmly and smoothly (compressing to one third of their chest depth) 30 times. Give two breaths. To get the breath in, tilt their head back gently by lifting their chin. Pinch their nostrils closed, place your open mouth firmly over their open mouth and blow firmly into their mouth. Keep going with the 30 compressions and two breaths at the speed of approximately five repeats in two minutes until you hand over to the ambulance officers or another trained person, or until the person you are resuscitating responds.

Reporting: Emergency situations will be reported to PMU as soon as practicable and within 24 hrs. A summary of all incidents and their status (e.g., status of investigation and corrective action implementation) will be included in the monthly environment report to PMU and copies of completed Incident Reports and Incident Registry Database made available to PMU upon request.

10.6.4. Chance Finds Procedure

There is a possibility that project activities may result in damage to physical cultural resources (PCR) unless identified early. A Chance Finds Procedure (CFP) will be detailed in ESMPs. Activities that may occur in areas with possible PCR will specify procedures for identifying and avoiding impacts on this, including:

- Consultation with the appropriate authorities and local residents and communities to identify known or possible sites during the design of project activities;
- Siting of proposed activities to avoid identified sites (including protected areas and zones);
- The cessation of work until the significance of a 'find' has been determined by authorities or relevant experts; and
- Mitigation and management measures (e.g. buffer zones) for CFP in contracts.

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

The list of negative subproject attributes which would make a subproject ineligible for support includes any activity that would adversely impact cultural property. In the event that during reconstruction or construction sites of cultural value are found, the following procedures for identification, protection from theft, and treatment of discovered artifacts should be followed and included in standard bidding documents.

Chance find procedures will be used as follows:

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

These procedures must be referred to as standard provisions in construction contracts.

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

10.6.5. Code of Conduct

Note: This is the minimum content of the Code of Conduct form and shall not be substantially modified. However, the Contractor may add requirements as appropriate, including to take into account Contract-specific issues/risks.

Our workplace is an environment where unsafe, offensive, abusive or violent behaviour will not be tolerated and where all persons should feel comfortable raising issues or concerns without fear of retaliation.

REQUIRED CONDUCT

Contractor's Personnel employed for the execution of Installation Services at the Site (or other places in the country where the Site is located) shall:

1. carry out his/her duties competently and diligently;
2. comply with this Code of Conduct and all applicable laws, regulations and other requirements, including requirements to protect the health, safety and well-being of other Contractor's Personnel and any other person;
3. maintain a safe working environment including by:
 - a. ensuring that workplaces, machinery, equipment and processes under each person's control are safe and without risk to health;
 - b. wearing required personal protective equipment;
 - c. using appropriate measures relating to chemical, physical and biological substances and agents; and
 - d. following applicable emergency operating procedures.
4. report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health;
5. treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children;
6. not engage in any form of sexual harassment including unwelcome sexual advances, requests for sexual favours, and other verbal or physical conduct of a sexual nature with other Contractor's or Employer's Personnel;
7. not engage in Sexual Exploitation, which means any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;
8. not engage in Sexual Abuse, which means the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;
9. not engage in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage;
10. complete relevant training courses that will be provided related to the environmental and social aspects of the Contract, including on health and safety matters, and Sexual Exploitation and Abuse, and Sexual Harassment (SH);
11. report violations of this Code of Conduct; and

12. not retaliate against any person who reports violations of this Code of Conduct, whether to us or the Employer, or who makes use of the grievance mechanism for Contractor's Personnel or the project's Grievance Redress Mechanism.

RAISING CONCERNS

If any person observes behaviour that he/she believes may represent a violation of this Code of Conduct, or that otherwise concerns him/her, he/she should raise the issue promptly. This can be done in either of the following ways:

1. Contact [*enter name of the Contractor's Social Expert with relevant experience in handling sexual exploitation, sexual abuse and sexual harassment cases, or if such person is not required under the Contract, another individual designated by the Contractor to handle these matters*] in writing at this address [] or by telephone at [] or in person at []; or
2. Call [] to reach the Contractor's hotline (*if any*) and leave a message.

The person's identity will be kept confidential, unless reporting of allegations is mandated by the country law. Anonymous complaints or allegations may also be submitted and will be given all due and appropriate consideration. We take seriously all reports of possible misconduct and will investigate and take appropriate action. We will provide warm referrals to service providers that may help support the person who experienced the alleged incident, as appropriate.

There will be no retaliation against any person who raises a concern in good faith about any behaviour prohibited by this Code of Conduct. Such retaliation would be a violation of this Code of Conduct.

CONSEQUENCES OF VIOLATING THE CODE OF CONDUCT

Any violation of this Code of Conduct by the Contractor's Personnel may result in serious consequences, up to and including termination and possible referral to legal authorities.

For contractor's personnel:

I have received a copy of this Code of Conduct written in a language that I comprehend. I understand that if I have any questions about this Code of Conduct, I can contact [*enter name of Contractor's contact person(s) with relevant experience*] requesting an explanation.

Name of Contractor's Personnel: [insert name]

Signature:

Date: (day month year): _____

Countersignature of authorized representative of the Contractor:

Signature: _____

Date: (day month year): _____

Attachments:

1. Behaviours constituting SEA and behaviours constituting SEA/SH

ATTACHMENT 1 TO THE CODE OF CONDUCT FORM

BEHAVIORS CONSTITUTING SEXUAL EXPLOITATION AND ABUSE (SEA) AND BEHAVIORS CONSTITUTING SEXUAL HARASSMENT (SH)

The following non-exhaustive list is intended to illustrate types of prohibited behaviours.

(1) **Examples of sexual exploitation and abuse** include, but are not limited to:

- A Contractor's Personnel tells a member of the community that he/she can get them jobs related to the work site (e.g., cooking and cleaning) in exchange for sex.
- A Contractor's Personnel that is connecting electricity input to households says that he can connect women headed households to the grid in exchange for sex.
- A Contractor's Personnel rapes, or otherwise sexually assaults a member of the community.
- A Contractor's Personnel denies a person access to the Site unless he/she performs a sexual favour.
- A Contractor's Personnel tells a person applying for employment under the Contract that he/she will only hire him/her if he/she has sex with him/her.

(2) **Examples of sexual harassment in a work context**

- A Contractor's Personnel comment on the appearance of another Installation Services Personnel (either positive or negative) and sexual desirability.
- When a Contractor's Personnel complains about comments made by another Contractor's Personnel on his/her appearance, the other Contractor's Personnel comment that he/she is "asking for it" because of how he/she dresses.
- Unwelcome touching of a Contractor's Personnel or Employer's Personnel by another Contractor's Personnel.
- A Contractor's Personnel tells another Contractor's Personnel that he/she will get him/her a salary raise, or promotion if he/she sends him/her naked photographs of himself/herself.

10.6.6. Traffic Management Plan

TRAFFIC MANAGEMENT PLAN

1. INTRODUCTION

This Traffic Management Plan defines the responsibilities of the contractor with regards to ensuring that the management of the traffic during the period of the execution of road works is undertaken in professional manner that minimizes the risks related to the safety of workers, road users and general public.

The Contractor will:

- make this plan available to all workers on this project and ensure they have the opportunity to read, understand, clarify and ask questions;
- keep a copy of this plan readily available for the duration of the project, and;
- Ensure that this plan is implemented in all relevant aspects.

The Contractor shall be responsible for providing the safe passage of traffic through the work site and keeping the site open to traffic at all times.

This requires the contractor to procure/produce traffic warning signs and using them to control vehicles to keep the section on which the contractor is working safe for the workers and road users, hence;

- The Contractor will provide the estimated number and type of traffic warning signs and type of safety equipment that could be produced locally according to DOW design and specification;
- Keep existing roads that are undergoing maintenance improvements open and maintained in such a condition as to safely accommodate traffic;
- Provide and maintain temporary detours, approaches, or crossings and intersections with trails, roads, in a safe and passable condition;
- Existing access levels will be maintained through the provision of temporary crossing as required at each site;
- Vehicular access to adjacent properties shall be maintained throughout construction except for essential works where temporary closure shall not exceed one hour per day;
- Where access is temporarily affected, the Contractor shall notify NCDC and the affected parties of the disruption at least 7 days prior;
- Excavated areas are to be clearly marked and the perimeter secured with reflective hazardous warning tape to limit accident, especially for children from harm, and;
- Traffic control measures shall include reducing the speed limits throughout the construction sites and adjacent villages.

2. Roadworks Safety Signage and Safe Traffic Control

Where work is being done on roads, proper safety mechanisms should be in place to reduce accidents, by:

- Erecting temporary signs, and;
- Establishing temporary traffic control measures.

This will indicate to the drivers that work is in progress along sections of the roads ensuring smooth and safe traffic flow.

1. Installation of Traffic Signs

Temporary traffic signs must be used to direct traffic to safely manoeuvre their way through or around a road maintenance zone. Before work starts and during the works, informative and warning signs and barriers must be placed around the work area.

The following conditions are satisfied when fixing and positioning temporary traffic signs:

- They are clearly visible and provide sufficient reaction time.
- Those signs that must remain in place throughout the maintenance period and must be securely fixed to prevent them being removed by passers-by.
- The temporary signs must at all times be positioned at relevant locations, and be moved accordingly as the work progresses. This means the temporary signs must be removed promptly once the works for which they were erected are finished.
- Signs shall be reflectorized and kept clean and readable at all times

2. TRAFFIC CONTROL AND SAFETY

The contractor must ensure that:







- The necessary temporary traffic signs and protection are provided and correctly located on site for the duration of the work;
- All equipment and vehicles are parked off the carriageway or behind protective barriers and signs, when not in use;
- No material is to be left in a dangerous location to obstruct or be in the way of managed traffic;
- All excavations are protected for the benefit of all road users, equipment and workers;
- All operators are trained in the operation of their equipment;
- Operators and laborers are informed of the potential risks of and procedures for working with or close to machinery;
- Traffic control operations are carried out properly and that road users are not unnecessarily delayed;
- Where work on the carriageway or shoulder remains unfinished overnight, then proper warning lights are to be arranged and, protected;
- All sites are to be left tidy and cleared of debris when the work is completed.
- There are temporary warning signs at both ends of the maintenance site to advise road users that works are in progress and to reduce vehicle speed. Two signs of "Workers Ahead" signs (or Yellow/ Orange flags) placed on the traffic side road edge 200 m before and after the site where work is in progress, and;
- Warning signs for narrowing ahead placed 100 m before where the work is in progress.



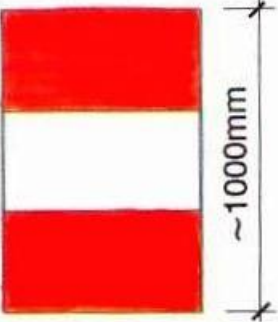

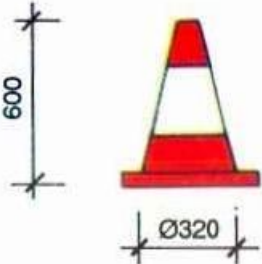
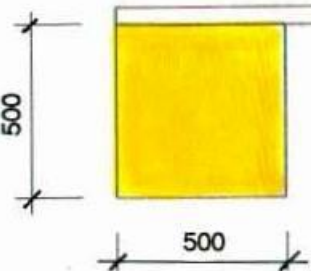
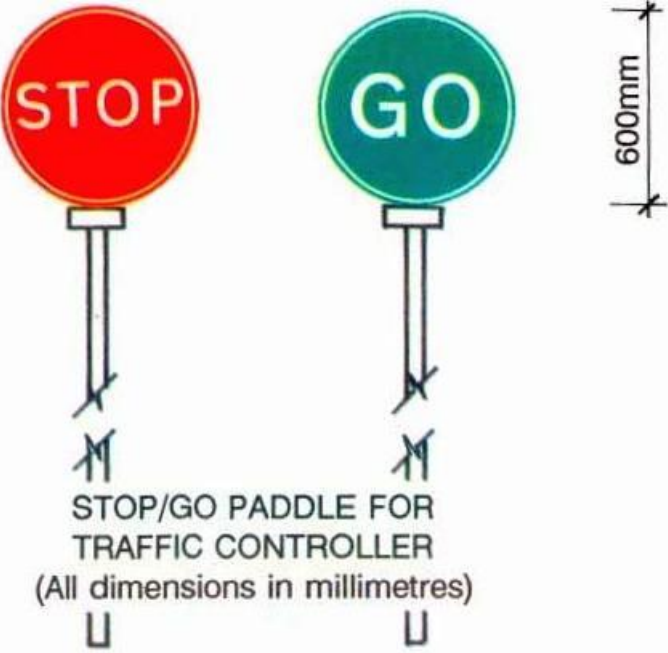
Wherever possible, diversions should be established so that traffic can be directed away from the road section under work. Properly installed road signs, which clearly show the diversion, are essential and the road or road section under work needs to be blocked by adequate barriers and signals.

All traffic signs must be installed before commencement of work activities and removed immediately upon the completion of works.

After the diversion has been completed and before work starts, warning signs, barriers and cones must be placed around the work area. Signs must be placed in the order s shown on Figures 1 - 13.

3. Traffic Signs

<p>Figure 1:</p>  <p>Men/Women at Work</p>	<p>Figure 2:</p>  <p>Stop Sign</p>	<p>Figure 3:</p>  <p>Road Narrows to Left Sign</p>  <p>Road Narrows to Right Sign</p>
<p>Figure 4:</p>  <p>Traffic Barrier</p>	<p>Figure 5:</p>  <p>No Passing</p>	
<p>Figure 6:</p>	<p>Figure 7:</p>	<p>Figure 8:</p>

 <p>Speed Limit Sign</p>	 <p>End Local Speed Limit</p>	 <p>Traffic Barrel</p>
<p>Figure 9:</p>  <p>Traffic Lane Close</p>	<p>Figure 10:</p>  <p>Traffic Cone</p>	
<p>Figure 11:</p>  <p>Warning Flag</p>	<p>Figure 12:</p>  <p>Stop / Go Paddle</p>	

10.6.7. Monthly Reporting Template

TO BE PROVIDED TO CONTRACTOR UPON CONTRACT SIGNING