***Annex X: Environmental Social and Management Plan (ESMP)***

**Introduction**

1. The Environmental Social and Management Plan (ESMP) is the main environmental safeguards framework that needs to be adequately followed and met by the contractor or any sub-contractors during the construction phase.
2. The environmental requirements of the Government of Maldives and ADB Safeguards Policy is reflected in this ESMP.
3. This ESMP shall be part of the contractor’s bid proposal with the anticipated cost of implementation of measures outlined in the ESMP.

**Objectives**

1. The objective of this annex is to provide further guidance to the contractor in preparation of bid proposals, to comply with the environmental impacts associated with the project.

**Institutions, roles and responsibility**

1. The main institution actors involved in the implementation of environmental aspects related to the project are, Implementing Agency (EA) i,e Ministry of Economic Development (MED), Executing Agency (IA) ie, Ministry of Finance (MOF), Road Development Cooperation (RDC) referred in the bid document as Employer, Environmental Specialists (ES) and Contractor.
2. Table below, discuss the roles and responsibility of actors.

|  |  |
| --- | --- |
| Institutions/Actors  | Responsibility  |
| MED | * Implementing Agency of the Project
* Assess and provide overall guidance to the implementation of the project
* Liaise with donors to ensure all the requirements of the donor are fulfilled during the implementation stages
* Coordinate with IA and ADB to ensure environmental requirements identified in the implemented or if required address any issues in its implementation
* Second tire focal point for Grievance Readdress Mechanism (GRM) related to the implementation of project
* Maintenance of Grievance registry
 |
| MOF | * Executing Agency of the Project
* Oversee overall implementation of the project
* Coordinate with EA and ADB to ensure all the requirements of the EMP are addressed
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| RDC | * The main employer of the project
* Coordinate with IA/EA to ensure all the aspect related to the project is implemented in accordance with the objectives and aims of the project
* Provide guidance to the contractors and prepare tendering documents
* Monitor the EMP with assistance from the Environmental Specialists
* Prepare and submit environmental monitoring reports to EA/IA
* First tire focal point for GRM related to the implementation of project
* Maintenance of Grievance registry
 |
| ES | * Update and revise the ESMP to meet the requirements of IA/EA/RDC and ADB
* Provide technical guidance to RDC in monitoring the ESMP
* Undertake field visit and collect data onsites
* Prepare quarterly Environmental Monitoring Reports in accordance to the ESMP prepared.
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| Contractor | * Ensure implementation of the ESMP during the construction phase of the project
* Incorporate the cost of implementation of mitigation measures to the bid proposal.
* Environmental document control is kept ON site
* Report all environmental related issues to the ES and RDC
* Coordinate with ES in preparation of the Monitoring Plans quarterly
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**Environmental Social Management Plan (ESMP)**

| **Feature** | **Impacts** | **Method Proposed** | **Proposed Mitigation Measures** | **Institution Responsibility** | **Mitigation Cost (MVR)** |
| --- | --- | --- | --- | --- | --- |
| **Implementation** | **Supervisory** |
| **LABOUR MANAGEMENT** |
| Local Workers | Low employment opportunity to locals | Responsible Recruitment of local workers | Local workers shall be prioritized during the recruitment process  | Contractor | RDC |  |
| Terms and Conditions | In adequate understanding of the Terms of Reference and scope of the hired workers  | Transparent communication process | Clear communication of all the renumerations to works needs to be presented including working hours, insurance and other key benefits  | Contractor |  | Mitigation cost to be included in the bid document |
| Well defined scope and terms within contract | Well documented and recorded contracts with workers  | Contractor |  |  |
| Increase of foreign workers without proper work permit | Compliance with Foreign workers regulations | Necessary work visa is ensured to all foreign workers | Contractor |  |  |
| Increased in forced foreign labour  | Well defined scope and terms within contract | A standalone clause needs to be included in the contract to ensure recruited workers do not pay any fee/bond/with hold of personal identification documents including passports | RDC/Monitoring Specialists  | EA | N/A |
| Accommodation facilities (mostly applicable for foreign workers) | Exposed to health risks including COVID 19 outbreak at the accommodation facilities.  | Provide safe accommodations, clean water, access to proper sanitation facilities and adequate waste management  | The accommodation facilities for all workers shall be safe and should have all basic essential services including water, sanitation and proper waste management. Additionally, hygiene products such as sanitizers shall be installed in site to reduce any COVID 19 outbreaks | Contractor | RDC |  |
| Inadequate water and food supplies  | Provision of Clean Water | Supply sufficient quantity of potable water in every workplace and work site at suitable and easily accessible places | Contractor |  |  |
| Food provision | Minimum 03 meals shall be provided to construction staff per day | Contractor |  |  |
| Decent Work | Extra-long hours |  | Worker shall not be forced to work for more than 48 hours per week | Contractor |  |  |
|  | Worker shall not be made to work for more than 6 days a week consecutively without providing 24 hours for rest | Contractor |  |  |
|  | Worker shall not be made to work continuously for more than 5 hours without providing a break for at least 30 minutes | Contractor |  |  |
| Withholding renumerations or benefits | Compliance with the regulations | Salary should be paid to all permanent contract workers once a month, and should be recorded and maintained  | Contractor |  |  |
| **PROCUREMENT AND MANAGEMENT OF CONSTRUCTION MATERIALS** |
| Coral and Sand Mining | Significant impact to marine and coastal environment  | Compliance with regulations  | Include in contract that use of any coral for construction is strictly prohibited | Contractor | RDC/ES |  |
| Imported Materials | Introduction of alien, or extra-terrestrial pests or organisms | Compliance with regulations  | Include in contract that use of any coral for construction is strictly prohibited | Contractor | RDC/ES |  |
| Health and Safety  | Accidents or unforeseen injuries during storage of materials  | Location control | Designate loading and unloading location within the site | Contractor | RDC |  |
| Maintain air quality | Construction materials needs to be properly covered  | Contractor | RDC/ES |  |
| Prevention of hazard risks including fire and oil spills | Flammable equipment’s and hazardous materials needs to be adequately stored.  | Contractor | RDC/ES |  |
| Accidents or unforeseen injuries during storage of materials during transportation  | Controls | Avoid overloading of materials to the vessels | Contractor | RDC/ES |  |
| Controls | Ensure coverage of vessels during transportation | Contractor | RDC/ES |  |
| Traffic flow | Undertake transfer of materials during low traffic hours to minimize nuisance to general public | Contractor | RDC/ES |  |
| Damages to public infrastructures | Risk of damages to roads due to heavy transportation of materials  | Control, Clean and Repair | Ensure overloading is avoided, and clean any accidental spillage during transport. Repair of any damaged roads or infrastructures due to transportation | Contractor |  |  |
| **SITE MANAGEMENT** |
| Access to sites | Injuries and accidents for trespassers  | Information  | Place a proper project information billboard specifying, project name, contractor, financing entities, project value and contact information. Safety signage boards shall be erected  | Contractor |  |  |
| Control measures | Adequate, safe and neat fencing shall be erected to cover the entire perimeter of the construction site using cost effective fence materials consisting of chain link fence fabric, concrete post, etc. as specified in the Technical Specifications in order to ensure public are unable to access the site. | Contractor |  |  |
| Site clearance | There is no significant flora or fauna at the sites. All the flora are common coastal shrubs  | Information | Careful removal of the shrubs from the sites.  | Contractor | ES |  |
| Mobilization of equipment  | Decreased air quality | Maintain air quality | Careful transport of materials to the sites  | Contractor | ES |  |
| **UTILITY SERVICES** |
| Ground Water | Pollution of groundwater  | Source water from MWSC | Do not obtain water for project purposes from any public or community water taps | Contractor | RDC/ES |  |
| Electricity  | Electrocution and safety risks | STELCO | Ensure electricity is supplied from STELCO | Contractor | RDC |  |
| **GENERAL CONSTRUCTION WORKS** |
| Pollution Control | Increase waste dumping and pollution | Proper waste management system | Ensure all construction waste are sorted  | Contractor | ES |  |
| Ensure all waste generated during the construction period is safely disposed at Thilafushi or designated sites for waste disposal by proponent | Contractor | ES |  |
| Health and Safety  | Accidents or unforeseen injuries during constructional period | Workers Safety measures | Ensure safe working environment for workers are provided. These include provision on adequate safety equipment such as safety shoes, helmets  | Contractor | RDC/ES |  |
| Ensure safety net during the construction period | Contractor | RDC/ES |  |
| Protective footwear and protective goggles should be provided to all workers employed on mixing of materials like cement, concrete etc | Contractor | RDC/ES |  |
| Provision and availability of first aid kit and proper mechanism or protocol to attend medical emergencies  | Contractor | ES |  |
| Signage boards and information | Put up signage with instructions on first aid management, emergency contact and emergency operational procedures in Dhivehi and other language including but not limited to Bangala | Contractor | ES |  |
| Prepare a sign board with names and contact information for emergency services such as ambulance, hospitals, police and the fire services and display at the work site. This board also need to have contact information for GRM | Contractor | ES |  |
| All workers should be provided with health and safety information appropriate to the work that they undertake | Contractor | RDC/ES |  |
| Training | Conduct onsite safety training for all labourers during the ESMP training prior to the start of construction activities | Contractor | ES |  |
| Provide training to labourer’s on the risks of working in a tropical open project site | Contractor | ES |  |
| Provide adequate training and guidance to all workers on prevention of accidents involving human beings, vehicles, machinery or accidents during construction period | Contractor | ES |  |
| COVID 19 Hygiene Products | Ensure availability of hygine facilities within the construction sites including sanitizers, hand washing platforms  | Contractor | RDC/ES |  |
| Establish working environment protocols in accordance with the guidelines set by Health Protection Agency to slow the spread of COVID 19 in constructional sites | Contractor | RDC/ES |  |
| Risk reduction | Special precaution must be undertaken to ensure workers are safe from risk of electrocution. No open electrical wiring or cables shall be kept on site | Contractor | RDC/ES |  |
| Communication | All communication to workers shall be presented in the local languages and in the case of migrant workers in their local language as well.  | Contractor | ES |  |
| Emergency transport | Ensure availability of suitable transport at all times to take injured or sick person(s) to the nearest hospital | Contractor | ES |  |
| Monitoring  | Prepare a safety inspection checklist taking into consideration what the workers are supposed to be wearing and monitor and record monthly | Contractor | ES |  |
| **DEMOBILIZATION AND HANDOVER TO PROCESS** |  |
| Health & Safety |  |  | Remove all excess material, equipment, vehicles from the project site prior to complete demobilization | Contractor | RDC/ES |  |
|  |  | Dismantle all temporary site offices and remove from the site | Contractor | RDC/ES |  |
|  |  | If the storage site has been dilapidated in any way as per the evaluation of the engineer, reinstate it to the original condition prior to demobilization | Contractor | RDC/ES |  |