

ENVIRONMENT AND CONSERVATION DIVISION [ECD]

Guide for Designing the Contractor's Environmental and Social Management Plan (CESMP)

INTRODUCTION

The purpose of an environmental management plan is to outline how a Contractor of a particular project will avoid, minimize or mitigate effects on the environment and surrounding area.

Contractor's Environmental Management Plans (CEMPs) often detail the specific implementation of measures in accordance with the Environmental Impact Assessment (EIA) Report prepared for the project and the Environment Licence issued by the Environment and Conservation Division.

In the absence of the EIA report and during the consideration or review of the Environment Licence, the CEMP can also be requested from the applicant or the Contractor to prepare and to submit it. This request is made in accordance with Section 34 (1) (a) of the Environment (Amendment) Act 2007 as additional information to be provided. The CEMP can also be required in the Environment Licence Condition issued to the applicant or the project. In this scenario, the applicant or its contractor must detail the specific implementation of measures in accordance with environmental commitments and best practices.

CEMPs are 'live' documents that are reviewed and updated at regular intervals throughout the project life cycle however they need to be reviewed and approved by the Environment and Conservation Division.

SCOPE AND OUTLINE OF THE CEMP

The minimum outline of the Contractor's Environmental Management Plan should consists of the followings

- 1. Introduction:
 - General purpose, and structure of the project.
 - Project site, need, work schedule, expected deliverables, procurement of materials, project organizational and management arrangement.

2. Scope of work

- Information about the development project including components, specific tasks or works to be undertaken and step by step construction methodologies.
- 3. Environmental requirements and controls:
 - National policy and legislative requirements,
 - Statement on environmental issues including but not limited to the following subject areas:
 - Air quality.
 - Water quality, discharge and drainage including waste water management
 - Noise and vibration.
 - Solid waste
 - Scrap metals and Construction machineries
 - Heaps and Spoils management
 - Chemical and Hazardous materials
 - Water resource
 - Energy Consumption
 - Natural resources (Biodiversity)
 - Materials
 - Archaeology and cultural significance sites
 - People and Communities including resettlement and displacement
 - Statement on risks and mitigation based on the above environment subject areas
 - Statement on procedures for monitoring construction processes against environmental objectives, pollution control measures.
- 4. Management plans and roles and responsibilities
 - Statement on specific management plans such as waste management, waste water discharge, noise and vibration, and so on.
 - Statement on roles and responsibilities in implementing the CEMP.
 - The summary of the specific management plan above must be provided in the CEMP in a
 matrix from with the following key elements: (i) Environmental issues/the environment to
 be affected or impacted (ii) specific mitigation control or safeguard measures (iii)
 responsible institution to implement control or safeguard measures.(See appendix 1 for
 the template)

5. Communication and Reporting:

- External and internal communication procedure on environmental incidences, and reporting requirements.
- In case of any environment incidences, the Contractor should produce the report. (See appendix 2 for environment incident report template)

6. Appendix

- Maps, Designs, Tables, Figures, Organizational charts etc.
- Summary of the specific Management Plan (see Template provided)

APPENDECIES

Appendix 1: Summary of Specific Management Plan template

Environmental issues or environment to be affected	Location	Safeguard measure	Responsibility
Waste water	Sanitation system	 Waste water from concrete production must not be discharged directly into the ground but to the settling pond Waste water from the construction camp's toilet and kitchen would be connected to PUB main. 	Contractor
Noise Pollution	Concrete mixing	 Carry out work during normal hours i.e from 8am – 4:30pm Regularly check and maintain machinery, equipment and vehicle conditions to ensure appropriate use of mufflers, etc. 	Contractor
Non-living resources (Aggregates)	Lay down area	Construction materials will be imported from abroad	Contractor

Appendix 2: Environment Incident report template

Incident / Issue	Date of Occurrence	Place of Occurrence	Incident Brief Description	Significant of Impact	Remediation undertaken and Date
Land Contamination	09/08/19	Construction site	Hydraulic fluid leakage from Bulldozer. Approximately 2litres of fluid spilled onto the bare ground.	Minor. No sensitive or important habitat affected and didn't leak deep into the ground.	The contaminated soil is removed by shovel and stored in a secure and safe place for proper disposal/treatment 09/08/19.
Lagoon Contamination	10/09/19	Construction site	Approximately 300L of Waste water from the concrete mixing machinery accidently flow into the lagoon.	Moderate to Severe. The affected area (lagoon) is commonly used by local residents to glean/collect seashells and there's sea-grass ecosystem.	Relocate the concrete mixing plant further in land Built a bund wall around the concrete mixing area to contain any spill/overflow. Built a sediment pond to direct any waste water into it for natural evaporation. 11/09 – 13/09 2019.