



# MMP Report Guidelines

## Report Format for the Submission of: MANGROVE MANAGEMENT PLAN

### **Executive Summary**

This is a non-technical summary of the findings and recommendations of the MMP. Should be in English and Arabic, and cover/provide a short description of the proposed development project along with sufficiently detailed description of the scope of the study, its findings and proposed recommendations.

### **1. Introduction**

This chapter should include data in relation to the undertaking of the MMP including: Project Title and Project Proponent, Consultant details; and study Rationale.

### **2. Scope of the MMP**

This Chapter should identify why the MMP has been developed and the purpose of the study.

### **3. Aims, Objectives and Key Performance Indicators**

This should provide details of all managerial aims and specific objectives for each aim and how each will be assessed.

### **4. Legal Framework**

The legal framework should aim to give an overview of the relevant laws and regulations (both Federal and Local) along with local guidelines that are relevant to the study of the MMP. International Conventions and standards in relation to Mangrove Management should also be considered.

### **5. Baseline survey**

This section should provide a description of the existing physical and biological conditions of the mangroves present within the project area supported by maps and photographs with appropriate data collection methods to ascertain the nature of the existing environment prior to any impact.

### **6. Possible Impact**

This section should review and analyses all possible impact of the project on relevant wetlands and mangrove vegetation components trees - hydrology - substrate conditions and associate fauna. This may include but should not limited to: Direct Habitat Loss - Hydrological Modification - Sediments Accretion- Over Salinization- Impoundment and Flood Water Stagnation - Pollution - Dust Deposition- Solid Waste Accumulation – Fertilizers/ Pesticide/storm water Runoff - - Habitat disturbances

### **7. Organization and Management Structures**

An overall organization chart addressing position and role of each party involved in executing the approved management plan: EPDA, owner/developer, operation manager, Project manager, Project/site engineer, HSE engineers, Contractors/Subcontractors, construction superintendents, Consultants, etc.

## **8. Responsibilities**

Authorities and responsibilities of various parties involved in all phases of the project with specific reference to their role in the mangrove management actions plan. This may include authorities and responsibilities in conducting the approved management plan: EPDA, Project manager, Project/site engineer, HSE engineers, Contractors/Subcontractors, Consultants, etc.

## **9. Communication and Reporting**

Reports formats, bodies involved in the reporting should be addressed here. As a part of the reviewing and auditing procedures, MMP should contain all Internal and external Communications, Environmental Documents and data Control and Management.

## **10. Education and Training (Skills)**

Awareness training sessions should be documented here and should be tailored per level of skills required during various phases of the project activities. Training may cover: personal safety within the mangrove, Management plan implementation requirements, Significant environmental aspects associated with the project, Environmental risks within marine habitat, Reporting environmental issues and preparation of non-conformance register, Waste management procedures within wetlands, Hazard identification and mitigation.

## **11. Incident Management**

This section should include a defined process for logging, recording and resolving incidents associated with the impacts during different phases of the project. This section may include the following subsections: Incident Investigation and response; Incident Responses Procedures specific to various incidents in mangroves; and Incident Reporting. For example, incidents related to spill, hydraulic impairments, or mangrove dieback, etc.

## **12. Monitoring Program**

This section should provide detailed insights for it's the Program Objectives, Design, Schedule, Performance Criteria, Management of Monitoring Activities, Reporting and Consultations.

## **13. Mitigation/Compensation/ Planting Program**

Describes reasons for mitigation/compensation program based on impacts recognized. Develop a mitigation plan as a separate procedural document (if any) including site preparation, planting procedures, monitoring program and performance indicators and for the mitigation site.

## **14. Mangrove Conservation policy**

This section focus more on operation phase and provide policy guidelines protect/ conserve mangrove habitat from different possible impact factors. This may include guidelines for protecting vegetation, site hydrology and associate flora and bird life habitats.