

1 Introduction

1.1 Environmental Protection Action for Development Project

In Hong Kong, the Environmental Impact Assessment (EIA) process is undertaken to review and evaluate the possible environmental impacts from the implementation of development projects. In order to protect the environment, ensure the optimum environmental performance of the project and manage the translation of the project from drawing board to ground-breaking, and beyond, an effective Environmental Monitoring and Audit (EM&A) system is needed. It is the responsibility of the project proponent to ensure the environmental protection and pollution prevention recommendations and requirements arising from application of the EIA process are fully implemented in a timely manner, at all relevant project stages, such as, design, construction, operation and decommissioning.

1.2 Criteria for an Environmental Monitoring and Audit Programme

An EM&A programme is an effective means to oversee the environmental performance of a development project during its implementation. Similarly, a project EM&A programme provides a framework that can be used to identify and contain potential adverse impacts, and apply appropriate measures to ameliorate them. Indeed, not all development projects are required to conduct EM&A programmes. It is a requirement of an approved Environmental Impact Assessment/Environmental Assessment (EIA/EA) study report to conclude the need of an EM&A programme based on the following principles:

- (a) the project has the potential of causing environmental impacts which are or are likely to be prejudicial to the health or well being of people, the flora, fauna or ecosystem if the recommended mitigation measures are not properly implemented;
- (b) the project is situated in any area of high conservation value;
- (c) the project involves mitigation measures of which the effectiveness may require a long period to establish, e.g. compensatory planting of trees or mangroves;
- (d) the project involves an unproven technology;
- (e) the project involves unproven mitigation measures;
- (f) an otherwise familiar or routine mitigation measure is proposed for a new or unfamiliar environmental setting;

- (g) the analysis is based on a new technique or model, or there is other uncertainty about design assumptions and/or the conclusions;
- (h) project scheduling is subject to change such that significant environmental impacts could result; and
- (i) ascertain and verify the assumptions implicit to and accuracy of EIA study predictions.

A tabulated proforma is provided in Appendix A1 for evaluation.

1.3 Purpose of The EM&A Guidelines

The Guidelines provide a framework for preparation of a project EM&A manual. A project EM&A Manual is a primary "tool" that integrates and documents a project's EM&A programmes with its environmental management requirements. A project EM&A manual is designed to ensure and assure the quality delivery of a development project in a systematic, transparent, responsible and documented procedure. Its ultimate aim is to contribute to the protection of the environment and the enhanced environmental performance of the project.

In Chapter Two, the guiding principles of an EM&A programme set the scene for the "quality" environmental management of a project's implementation, including a requirement for a policy commitment, to deliver, *inter alia*, the approved EIA/EA study and process requirements. The Chapter also outlines the key elements for EM&A management and technical requirements.

Chapter Three of the guidelines provides the scope and tasks implicit to the Design Phase EM&A programmes and Manual. Similarly, Chapter Four, provides for the construction Phase of a project's implementation. Chapter Five outlines procedures for the operational phase (if applicable) of a development project.