PREFACE

Since 1992, the Assessment and Audit Group (previously, Monitoring and Audit Section) has worked to develop programmes to ensure the requirements and recommendations of Project Environmental Impact Assessment/Environmental Assessment (EIA/EA) Studies would be undertaken and implemented by Project Proponents in a timely and effective manner. We experienced development projects, such as, airport core programme projects, highways, cross channel cable bridges, new town developments, pipelines, water and wastewater treatment plants, oil and gas facilities, cross-border projects, river channels, golf course, municipal slaughterhouse, iron and steel plants, quarry mines, cross harbour tunnel, reclamation and river terminal, etc. And confronted various difficulties, such as,

- fragmented environmental monitoring programmes;
- lack of resources for EIA/EA study follow-up EM&A programmes;
- likelihood of irreversible adverse environmental impacts with little resources nor time to achieve satisfactory mitigation;
- lack of awareness of potential cumulative impacts between adjacent projects;
- poor quality control of monitoring programmes;
- mitigation measures not implemented properly;
- design and construction changes and variations after EIA/EA study without corresponding audit and verification of the required environmental performance of such changes;
- lack of a clear-cut roles and responsibilities among key personnel for the follow-up and implementation of EIA study recommendations and requirements;
- Environmental site staff/teams lack of practical experiences to manage Environmental Monitoring and Audit (EM&A) programmes;
- lack of environmental awareness and proactive action to pre-empt environmental impacts; and
- unfavourable institutional set up of resources to implement EM&A programmes (on site environmental monitoring team vs *ad hoc* monitoring site visits, independent audit vs in-house audit, establishment of full time EM&A team vs site/works inspection teams carrying out EM&A programmes on a part-time, work share basis).

In order to translate the findings of an EIA/EA study from desktop to on-site implementation with a view to avoiding the problems identified above, a full and comprehensive Environmental Monitoring and Audit (EM&A) Programme is required. This is considered necessary to ensure the environmental commitments made at the EIA/EA study stage are implemented in an efficient and effective manner.

The Guidelines lay down the "ground-rules" of environmental management systems for the EM&A of development projects in Hong Kong. The aim of these Guidelines is to provide clear and comprehensive direction on environmental monitoring and audit matters, to all the key players and stakeholders, at all stages of a project's development and implementation; from completion of EIA/EA studies through to operation of the project. To achieve this aim the Guidelines provide, inter alia, wide coverage of environmental management and organisational elements, which are considered imperative to ensure a

project's coherent and satisfactory environmental performance.

Notwithstanding the imminent implementation of the Environmental Impact Assessment Ordinance (EIAO) and related enforcement capability, readers are requested to note the Guidelines are designed as an Environmental Management Tool. The Guidelines will, with an emphasis on proaction and proactive measures, contribute to the satisfactory establishment of project specific environmental management and EM&A programmes, protocols, and procedures. The ultimate goal being the achievement of a project's environmental performance, as committed by the Project Proponent at the EIA/EA study stage.

Readers are requested to note that the Guideline are not intended to supplant the requirements of laws of Hong Kong, such as, EIAO. The Guidelines are envisioned as being one of the many tools to enable the Project Proponent to comply with, *inter alia*, the various environmental protection laws.

Environmental Assessment and Noise Division Environmental Protection Department Hong Kong