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Topic: Impact analysis

UNIT – 03 Unit-03/ Lecture-01

Impact analysis

Unit-03/Lecture-01

Impact analysis

Need for better practice frameworks

Follow-up is the element that can transform EIA from a static to a dynamic process: the missing link between EIA and project implementation. The federal Minister of the Environment advocates follow-up as “an essential component of an effective environmental assessment process,” Included amongst the Minister’s amendments is the recognition of the need to strengthen the EIA follow-up process. It is recommended that the results of follow-up programs be used to improve the quality of environmental assessments. Recognizing the importance of follow-up activities in the sustainable development of the environment, and in compliance with the recommendations of the Minister of Environment, Development for 2002-2003 recognizes the need to improve the effectiveness of followup programs. This can be achieved through focus on systematic best practice methodology for future follow-up in EIA. The need to make follow-up programs more efficient and more effective is consistent with CEAA requirements. It is here where the proposed research will make a practical contribution to improving follow-up through evaluating recent practice and identifying transferable learning opportunities.

follow-up includes:

The collection of data, the structuring and analysis of this data and the appraisal of the generated information about the impacts of a project (or plan) that has been subject to EIA. It also involves decision-making on remedial action and communication of the results of this process.

follow-up is comprised of four key activities

Monitoring: the collection of data and comparison with standards, prescriptions and expectations

1. Evaluation: the appraisal of the conformance with standards, predictions or expectations as well as the environmental performance of the activity;

2. Management: making decisions and taking appropriate action in response to issues arising from monitoring and evaluation activities; and,

3. Communication: informing the stakeholders as well as the general public about the results of the EIA follow-up. Stakeholders are included as they are directly affected; for

example resident communities around BHPB. The general public needs to be informed for learning purposes.

Types of Follow-up

Follow-up implementation takes different shapes and forms and mainly depends on the objectives of each individual program. Follow-up may also involve different types of assessment in one single program.

Monitoring

Monitoring is defined as the collection of data with the aim of providing information on the characteristics and/or functioning of environmental variables.

Auditing

Auditing involves an objective examination and comparison of observations with pre-defined criteria to facilitate management or to determine compliance.

Evaluation

Evaluation is a term used in planning and policy for the generic process of gathering, structuring, analysing and appraising information and involves value judgments.

Post-decision analysis

Post-decision analysis refers to a wide range of activities (Fig 2.1) that can occur after a decision has been made and the implementation of a project has commenced.

1. Baseline Conditions
2. Future Trends
3. Air Sensitive Receivers (ASRs)
4. Meteorology
5. Construction Phase Air Quality Impacts

Water Quality Impact

Introduction

This section presents an assessment of the potential water quality impacts associated with the construction and operation phases of the Project. Recommendations for mitigation measures have been made, where necessary, to reduce the identified water quality impacts to an acceptable level.

Environmental Legislation, Standards and Guidelines

1. Water Pollution Control Ordinance
2. Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters
3. Water Supplies Department (WSD) Water Quality Criteria
4. Practice Note for Professional Persons on Construction Site Drainage
5. Suspended Solids Criterion for Benthic Organisms
6. Sediment Quality Criteria for the Classification of Sediment

Identification of Environmental Impact

Potential sources of water quality impact associated with the proposed construction activities at the work areas of the proposed SIL(E) have been identified and include:

Dredging/ excavation and seawall modification for the construction of piers/pier foundations of bridge in Aberdeen Channel

- Barging facilities and activities
- Wastewater discharge from tunnelling and open cut excavation
- Sewage effluent from construction workforce
- Construction site runoff and drainage