

## **EIA Follow-up: Outcomes and Improvement Discussion Paper**

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### **1.0 Purpose**

The purpose of this paper is initiate and facilitate a discussion about environmental impact assessment (EIA) follow-up activities, specifically focusing on:

1. the major outcomes of EIA follow-up programs that practitioners are involved with; and
2. how EIA follow-up programs may be improved in the future.

### **2. Structure of Paper**

This paper begins with a few proposed definitions for terminology concerning EIA follow-up, to set the context for the topic of discussion. Next, key findings of a workshop on EIA follow-up, conducted at *IAIA'00* in Hong Kong, are summarized. The last section identifies some future challenges for EIA follow-up. It is intended that these challenges will provide the starting point for discussion and debate at *IAIA'01*.

### **3. EIA Follow-up Activities and Terminology**

EIA follow-up refers to the activities undertaken during the post-decision stages of the process. It includes tasks such as monitoring, evaluation, mitigation and management, and communication

(reporting) of environmental outcomes (Box 1). The purpose of EIA follow-up is to provide feedback on EIA outcomes; (e.g. How did the actual impacts of a project compare with the predictions in the EIS? Were impacts mitigated and managed in accordance with approval conditions set by decision-makers? How effective was the EIA process itself?) To address these questions, EIA follow-up draws upon monitoring and auditing data.

<b>Key EIA Follow-up Activities</b>		
<b>Box 1</b>		
<b>E I A</b>	1. <b><i>Monitoring</i></b>	the collection of data and comparison with standards, predictions or expectations.
<b>F O L</b>	2. <b><i>Evaluation</i></b>	the appraisal of the conformance with standards, predictions or expectations as well as the environmental performance of the activity.
<b>L O W</b>	3. <b><i>Managemen</i></b>	making decisions and taking appropriate action in response to issues arising from monitoring and evaluation activities.
<b>- U P</b>	4. <b><i>Communication</i></b>	informing the stakeholders as well as the general public about the results of EIA follow-up.

A variety of terms are used to describe EIA follow-up activities including: monitoring, auditing, evaluation, and environmental management systems (EMS). We define these terms as follows:

- **Monitoring** is the systematic, repetitive collection of data (measurements or observations) to provide information on environmental variables (in space and time).
- **Auditing** involves comparing monitoring observations against a set of criteria (e.g. standards, predictions or expectations), and reporting the results. Environmental auditing may be carried out in order to facilitate management control and to assess compliance. In EMSs, auditing serves for self-regulation of a proponent's own stated environmental policy (e.g., ISO 14000 standard series).
- **Evaluation** is a term often used in planning and policy for the generic process of gathering, structuring, analyzing and appraising information. Evaluation explicitly involves value judgements. It often relates to subjective policy-oriented judgements rather than purely scientific and technical analysis.

- **Environmental Management System** is a system that operationalizes the implementation of all the measures developed in the pre-decision stage (regulatory, mitigative, environmental agreements etc.) while integrating a follow-up system that will ensure the compliance to these measures and an evaluation of their effectiveness.

#### **4. Key Findings From IAIA'00 EIA Follow-up Workshop**

An EIA follow-up workshop was held at the IAIA'00 conference in Hong Kong. The purpose of the workshop was to consider current innovations of EIA follow-up, discuss examples of good practice, and to identify directions for future development of EIA follow-up. Some of the innovations in EIA follow-up reported on included:

- use of an Independent Environmental Checker in Hong Kong to check the works carried out and data collected by the environmental team responsible for the actual monitoring and audit of active project sites. A similar Independent Environmental Monitoring Agency has been established for a mining project in Canada;
- installation of cameras and monitoring equipment on project sites in Hong Kong that stream 'real time' images and data onto web pages that can be accessed by members of the public. This provides for a public 'watchdog' role in EIA follow-up and enables problems to be quickly addressed;
- requirement for an Impact Assessment Compliance Report under new EIA regulations in Portugal;
- implementation of screening and scoping stages in EIA follow-up in the Netherlands. This selective approach to EIA follow-up adds value to the process as not all EIA activities may need to be followed-up;
- use of an Environmental Management Plan (EMP) that clearly outlines the mitigation measures and management procedures that need to be put in place in South Africa and Western Australia. The EMP should be prepared by the proponent once the approval decision is made, but prior to project commencement. An EMP is not just another document: it establishes an active process of adaptive environmental management; and
- community participation in EIA follow-up, particularly in the evaluation of monitoring results. Consultation with local people, including Aboriginal groups, has proven to be a valuable two-way information flow in some Canadian and US follow-up programs. Proponents learn about the environment from the local community, and the public are informed about project operations.

#### **5. Suggested Future Directions for EIA Follow-up From IAIA'00 Workshop**

The lessons that arose from the IAIA'00 workshop were very diverse. However, the following useful and promising avenues for furthering practice of EIA follow-up were advocated:

### ***Institutional Arrangements:***

- EIA follow-up regulations should clearly explain what work is needed and who is responsible.
- EIA follow-up programmes should be closely linked to approval decisions.
- External (independent) review of follow-up programmes and follow-up results can improve quality control in EIA follow-up.

### ***Follow-up Techniques:***

- Early and explicit screening and scoping (preferably during the environmental impact statement (EIS) preparation) should be undertaken to identify follow-up requirements.
- A flexible and adaptive approach to EIA follow-up is needed to maintain focus on important issues (e.g. EIA follow-up scoping should be an 'objective-led' and constant process during all stages of the project cycle,).

### ***Communication and Participation:***

- Openness, reporting and public participation in EIA follow-up is important. All stakeholders should be involved. Information sharing enhances local capacity building.
- Active public participation can enable cumulative, health and local community effects (social and cultural) to be successfully addressed in EIA follow-up.

### ***Improving EIA Practice Through Follow-up:***

- EIA follow-up promotes the application of EIA principles throughout the project cycle.
- A pro-active approach based on the use of event action plans or contingency plans is effective. These plans are initiated if monitoring programmes detect unacceptable impacts or other problems emerge.
- EIA follow-up promotes adaptive environmental management and should link up with EMS activities.
- The effectiveness of EIA follow-up is enhanced when results from one programme are linked to future decision-making.
- Pragmatic approaches (e.g. using simple monitoring systems with short feedback cycles that yield quick results) may improve the efficiency of follow-up, specifically the time, money and staff resources required.
- Provision of adequate resources (finance, capacity) is essential to make EIA follow-up a reality.

### ***EIA Follow-up Training and Development:***

- Approaches for carrying out EIA follow-up for various types of activities (e.g. project based EIAs vs. strategic environmental assessments) need to be developed and documented.

- Development of generic screening and scoping criteria for EIA follow-up would be useful to other practitioners (e.g., criteria like uncertainty, sensitivity, feasibility).
- It is important that the EIA follow-up outcomes are used to improve EIA systems and practices.
- There is a need for training and capacity building for EIA follow-up, especially for countries with little experience.
- Learning about EIA follow-up can be enhanced by establishing a network for exchanging experiences and information about EIA follow-up.

## **6. Future Issues and Challenges in EIA Follow-up**

There are a number of future challenges for EIA follow-up, questions raised but not resolved during the previous workshop in Hong Kong. We pose these questions now to generate discussion on the practice of EIA follow-up in the near future. In discussing these issues, we are interested in learning from practitioners about the outcomes of actual EIA follow-up programs. In particular, the emphasis is on how to advance and improve follow-up activities which will in turn lead to improved EIA practices and acceptance of the process.

### **Challenge 1. What are the problems with EIA follow-up implementation?**

In many jurisdictions there are regulations and administrative guidelines for conducting some form of follow-up. However, these are usually outside the EIA framework or only loosely linked with EIA (e.g. EMSs). Moreover, these regulations are generally culturally specific and may be of minimal interest to an international audience. It is clear that practice of EIA follow-up is limited and that the full potential of it is not exploited yet. As a consequence, we are interested in understanding what impedes the implementation of EIA follow-up programs.

- Are there problems establishing a flexible approach to impact and project management?
- Are problems of availability of data and of pragmatic methods and techniques important?
- How important are organizational and economic resources to EIA follow-up?
- How do socio-political factors influence EIA follow-up implementation?

### **Challenge 2. What are the potential results and outcomes of EIA follow-up?**

In the literature many potential results and outcomes are attributed to EIA follow-up (controlling a project, better environmental management, enhancement of knowledge, methods and techniques, improvement of communication with stakeholders, integrating and structuring environmental information). We are interested in hearing about concrete examples of the results and outcomes of follow-up.

- Have the results of EIA follow-up programs been used to improve the practice of EIA generally?

- What benefits have EIA follow-up programs provided for proponents, regulators and the community?

### **Challenge 3. What action can be taken on the basis of EIA follow-up results?**

To be useful, the results of EIA follow-up should lead to actions with respect to the project, future EIAs, and future planning.

- What sort of actions does EIA follow-up lead to?
- What are limitations in taking action (e.g. limited money, regulations, competencies, support)?
- How does EIA follow-up lead to improved management practices by proponents?
- Who is responsible for this action (e.g. proponents, regulatory agencies, public)?
- What proportion of actions arising from EIA follow-up are undertaken on a self-regulatory basis by proponents compared to 'command and control' requirements of regulatory agencies?
- Would these actions also be carried out without EIA follow-up?

### **Challenge 4. Is EIA follow-up cost-effective?**

The usefulness and feasibility of EIA follow-up can be expected to be a function of: the effort invested, the results produced and the flexibility of the program to adapt to new situations. It is clear that not all follow-up programs require the same amount of time and effort.

- Do the benefits of EIA follow-up outweigh the costs? If so, why and how?
- What are cost-effective approaches to EIA follow-up (examples)?
- What measures can be undertaken to make EIA follow-up cost effective?

### **Challenge 5. What are the roles of EIA stakeholders during follow-up activities?**

The consequences (benefits and drawbacks) of EIA follow-up may differ for the various stakeholders. This will influence their role in EIA follow-up.

- Who is the audience for EIA follow-up programs?
- Who should be involved and what should they be responsible for?
- How are roles and responsibilities established?
- What are the advantages of involving the local community in EIA follow-up programs?

### **Challenge 6. What is the contribution of EIA follow-up to important issues in EIA?**

There is increasing interest in shifting the focus of EIA further away from project-specific assessment to strategic environmental assessment and consideration of cumulative impact of multiple projects on the environment (regional approach).

- Can EIA follow-up be useful to the issues of
  - adaptive environmental management, and broader issues such as:
  - cumulative impacts,
  - health impacts,
  - community impacts, and
  - strategic environmental assessment?
- How should EIA follow-up be undertaken in this context?

**Challenge 7. The major theme of IAIA '01 is 'Keys to Building Urban, Regional and Global Sustainability'.**

- What are the special challenges encountered for EIA follow-up in urban environments?
- How does EIA follow-up contribute to regional and global sustainability?

**We want your comments!**

We welcome your responses to the above questions in the lead up to IAIA'01 in May 2001. Specifically we want you to share with all of the other workshop participants at IAIA'01 the outcomes of recent EIA follow-up case studies, identify good practices in EIA follow-up and what lessons have been learned.

Comments can be made on the internet at: <http://ea-ee.ncr.ec.gc.ca/fup/login.asp>. If you require a login username and password to access this site, please contact Jill Baker (details below). If you do not have access to the internet, please send your written responses to Angus Morrison-Saunders (details below).

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