



PRINCIPLES OF ENVIRONMENTAL IMPACT ASSESSMENT BEST PRACTICE

IAIA Pierre Senécal
 Bernice Goldsmith
 Shirley Conover
 IAIA'97 Workshop Participants
 IAIA'98 Workshop Participants

IEA Barry Sadler
 Karen Brown

IAIA International Headquarters, 1330 23rd Street South, Suite C. Fargo, ND 58103 USA.
 +1 701.297.7908. Fax +1 701.297.7917. info@iaia.org www.iaia.org

Institute of Environmental Assessment, Welton House, Limekiln Way, Lincoln, LINC LN2
 4US, UK. +44.1522.540069. Fax +44 1522.540090. ieauk@dial.pipex.com.
 www.greenchannel.com/iea/

BACKGROUND

At IAIA'96 in Estoril, Portugal, a special session was held on "The Environmental Impact Assessment (EIA) Global Guidelines Project." The session discussed the need for principles of, and guidance on, impact assessment in response to an emerging interest in international standards.

Participants at the Estoril session recommended that IAIA should develop principles of "best practice" for environmental impact assessment, recognizing that a similar process had been followed successfully for social impact assessment. This initiative was undertaken in collaboration with the Institute of Environmental Assessment, UK.

INTRODUCTION

This IAIA Principles of EIA Best Practice document is organized in two main parts:

Part 1

describes the purposes, aims, and approach used to develop the Principles; and

Part 2

presents the definition of EIA, its objectives, and the Principles of EIA Best Practice.

PART 1

PURPOSE, AIMS AND APPROACH

1.1 Purpose

As the premier organization in the field, IAIA is expected to play a leading and proactive role in the improvement and dissemination of EIA concepts and practices. The Principles of EIA Best Practice are intended to provide widely agreed guidance to IAIA members and others involved in applying EIA processes.

1.2 Aims

The Principles of EIA Best Practice are designed primarily for reference and use by those professionally involved in environmental impact assessment. The aim is to promote the effective practice of environmental impact assessment consistent with the institutional and process arrangements that are in force in different countries. Accordingly, the Principles are broad, generic, and non-prescriptive, emphasize EIA as a process, and are intended to be applicable to all levels and types of proposals, having regard to the limits of available time, information and resources.

1.3 Approach

The Principles project was initiated by Pierre Senécal, a former President of IAIA; coordination and management was carried out by Bernice Goldsmith, Concordia University (Montreal, QC) and member of the IAIA Board during the time of the project; and workshop reporting and editing was done by Shirley Conover, Secretary of the IAIA Board. The Principles were drafted by Barry Sadler and Karen Brown, of The Institute of Environmental Assessment (IEA), UK, who produced successive drafts of the document and circulated them to a working group of international experts and to IAIA's News list serve for comment by the IAIA membership. They utilized the results of the International Study of the Effectiveness of Environmental Assessment, the UNEP document on Issues, Trends and Practice in EIA, other guidance materials on best practice in EIA, and the expertise and experience of IAIA members. Workshops on the project were also held at IAIA'97 (New Orleans, USA) and IAIA'98 (Christchurch, NZ); comments from workshop participants were incorporated into this document.

PART 2

PRINCIPLES OF ENVIRONMENTAL IMPACT ASSESSMENT BEST PRACTICE

2.1 Definition of Environmental Impact Assessment (EIA)

Environmental Impact Assessment can be defined as:

The process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made.

2.2 Objectives of EIA

- To ensure that environmental considerations are explicitly addressed and incorporated into the development decision making process;
- To anticipate and avoid, minimize or offset the adverse significant biophysical, social and other relevant effects of development proposals;
- To protect the productivity and capacity of natural systems and the ecological processes which maintain their functions; and
- To promote development that is sustainable and optimizes resource use and management opportunities.

2.3 Introduction to the Principles

Two tiers of EIA Principles are included in this document: Basic and Operating.

"*Basic Principles*" apply to all stages of EIA; they also apply to Strategic Environmental Assessment (SEA) of policies, plans and programs.

The list of Basic Principles should be applied as a single package, recognizing that the Principles included are interdependent and, in some cases, may conflict (e.g., rigor and efficiency). A balanced approach is critical when applying the Principles to ensure that environmental impact assessment fulfills its purpose and is carried out to internationally accepted standards. EIA thus produces both complete analyses and the means of reconciling apparently conflicting principles.

"*Operating Principles*" describe how the Basic Principles should be applied to the main steps and specific activities of the environmental impact assessment process; e.g., screening; scoping; identification of impacts; assessment of alternatives.

It is also envisaged that subsequent tiers of Principles could evolve, e.g., "activity-specific," "state-of-the-art" and "next generation" of impact assessment principles. However their development would constitute a separate effort, building on and extending the Basic and Operating Principles presented below.

2.4 Basic Principles

Environmental Impact Assessment should be:

Purposive - the process should inform decision making and result in appropriate levels of environmental protection and community well-being.

Rigorous - the process should apply "best practicable" science, employing methodologies and techniques appropriate to address the problems being investigated.

Practical - the process should result in information and outputs which assist with problem solving and are acceptable to and able to be implemented by proponents.

Relevant - the process should provide sufficient, reliable and usable information for development planning and decision making.

Cost-effective - the process should achieve the objectives of EIA within the limits of available information, time, resources and methodology.

Efficient - the process should impose the minimum cost burdens in terms of time and finance on proponents and participants consistent with meeting accepted requirements and objectives of EIA.

Focused - the process should concentrate on significant environmental effects and key issues; i.e., the matters that need to be taken into account in making decisions.

Adaptive - the process should be adjusted to the realities, issues and circumstances of the proposals under review without compromising the integrity of the process, and be iterative, incorporating lessons learned throughout the proposal's life cycle.

Participative - the process should provide appropriate opportunities to inform and involve the interested and affected publics, and their inputs and concerns should be addressed explicitly in the documentation and decision making.

Interdisciplinary - the process should ensure that the appropriate techniques and experts in the relevant bio-physical and socio-economic disciplines are employed, including use of traditional knowledge as relevant.

Credible - the process should be carried out with professionalism, rigor, fairness, objectivity, impartiality and balance, and be subject to independent checks and verification.

Integrated - the process should address the interrelationships of social, economic and biophysical aspects.

Transparent - the process should have clear, easily understood requirements for EIA content; ensure public access to information; identify the factors that are to be taken into account in decision making; and acknowledge limitations and difficulties.

Systematic - the process should result in full consideration of all relevant information on the affected environment, of proposed alternatives and their impacts, and of the measures necessary to monitor and investigate residual effects.

2.3 Operating Principles

The EIA process should be applied:

- As early as possible in decision making and throughout the life cycle of the proposed activity;
- To all development proposals that may cause potentially significant effects;
- To biophysical impacts and relevant socio-economic factors, including health, culture, gender, lifestyle, age, and cumulative effects consistent with the concept and principles of sustainable development;
- To provide for the involvement and input of communities and industries affected by a proposal, as well as the interested public;
- In accordance with internationally agreed measures and activities.

Specifically the EIA process should provide for:

Screening - to determine whether or not a proposal should be subject to EIA and, if so, at what level of detail.

Scoping - to identify the issues and impacts that are likely to be important and to establish terms of reference for EIA.

Examination of alternatives - to establish the preferred or most environmentally sound and benign option for achieving proposal objectives.

Impact analysis - to identify and predict the likely environmental, social and other related effects of the proposal.

Mitigation and impact management - to establish the measures that are necessary to avoid, minimize or offset predicted adverse impacts and, where appropriate, to incorporate these into an environmental management plan or system.

Evaluation of significance - to determine the relative importance and acceptability of residual impacts (i.e., impacts that cannot be mitigated).

Preparation of environmental impact statement (EIS) or report - to document clearly and impartially impacts of the proposal, the proposed measures for mitigation, the significance of effects, and the concerns of the interested public and the communities affected by the proposal.

Review of the EIS - to determine whether the report meets its terms of reference, provides a satisfactory assessment of the proposal(s) and contains the information required for decision making.

Decision making - to approve or reject the proposal and to establish the terms and conditions for its implementation.

Follow up - to ensure that the terms and condition of approval are met; to monitor the impacts of development and the effectiveness of mitigation measures; to strengthen future EIA applications and mitigation measures; and, where required, to undertake environmental audit and process evaluation to optimize environmental management.*

* It is desirable, whenever possible, if monitoring, evaluation and management plan indicators are designed so they also contribute to local, national and global monitoring of the state of the environment and sustainable development.

REFERENCES

Impact Assessment Interorganisational Committee on Guidelines and Principles. 1994. Guidelines and Principles for Social Impact Assessment, Environmental Impact Assessment Volume 12, No. 2, 107-152

Department of Environment, Sport and the Territories, Australia. 1997. Report of the EIA Tripartite Workshop (Australia, Canada and New Zealand). Canberra, Australia.

EIA Process Strengthening Workshop Canberra 4-7 April 1995. A Report in Support of the International Study of the Effectiveness of Environmental Assessment. Environment Protection Agency Australia, Canadian Environmental Assessment Agency, and International Association for Impact Assessment.

Ridgway, B., M. McCabe, J. Bailey, R. Saunders, B. Sadler. 1996. Environmental Impact Assessment Training Resource Manual. Prepared for the United Nations Environment Programme by the Australian Environment Protection Agency. Nairobi, Kenya.

Sadler, B. 1996. Environmental Assessment in a Changing World: Evaluating Practice to Improve Performance, Final Report of the International Study of the Effectiveness of Environmental Assessment. Canadian Environmental Assessment Agency. Ottawa, Canada.

Scott Wilson Ltd. 1996. Environmental Impact Assessment: Issues, Trends and Practice. United Nations Environment Programme (Environment and Economics Unit). Nairobi, Kenya.