
Topic 1

Introduction and overview of EIA

Aims and objectives of EIA

EIA can:

- modify and improve design
- ensure efficient resource use
- enhance social aspects
- identify key impacts and measures for mitigating them
- inform decision-making and condition-setting
- avoid serious and irreversible damage to the environment
- protect human health and safety

Environmental impacts

- type and nature
- magnitude
- extent
- timing
- duration
- uncertainty
- reversibility
- significance

Integration within EIA

EIA process addresses the following environmental effects:

- biophysical and resource use
- social and cultural
- health and safety
- economic and fiscal
- landscape and visual
- indigenous peoples rights and traditional areas

US National Environmental Policy Act

(proclaimed in 1970)

NEPA called for:

- consideration of environmental values in decision making
- use of a systematic, interdisciplinary approach
- a detailed statement on:
 - the environmental impact of proposals
 - any adverse effects which cannot be avoided
 - alternatives to the proposed action
- making the statement available to the public

This process became known as
Environmental Impact Assessment

Evolution of EIA

- early 1970s – initial development
- 1970s to 1980s – increasing scope
- mid to late 1980s – process strengthening and policy integration
- mid 1990s – towards sustainability (SEA, Biodiversity)

EIA– Three core values

- integrity - the EIA process will conform to agreed standards
- utility - the EIA process will provide balanced, credible information for decision-making
- sustainability - the EIA process will result in environmental safeguards

Source: Sadler, 1996

EIA – guiding principles

The EIA process should be:

- purposive – meeting its aims and objectives
- focused – concentrating on the effects that matter
- adaptive – responding to issues and realities
- participative – fully involving the public
- transparent – clear and easily understood

Source: Sadler, 1996; IAIA/IEMA 1999

EIA – guiding principles (continued)

- rigorous – employing ‘best practicable’ methodology
- practical – establishing mitigation measures that work
- credible – carried out with objectivity and professionalism
- efficient – imposing least cost burden on proponents

Source: Sadler, 1996; IAIA/IEMA 1999

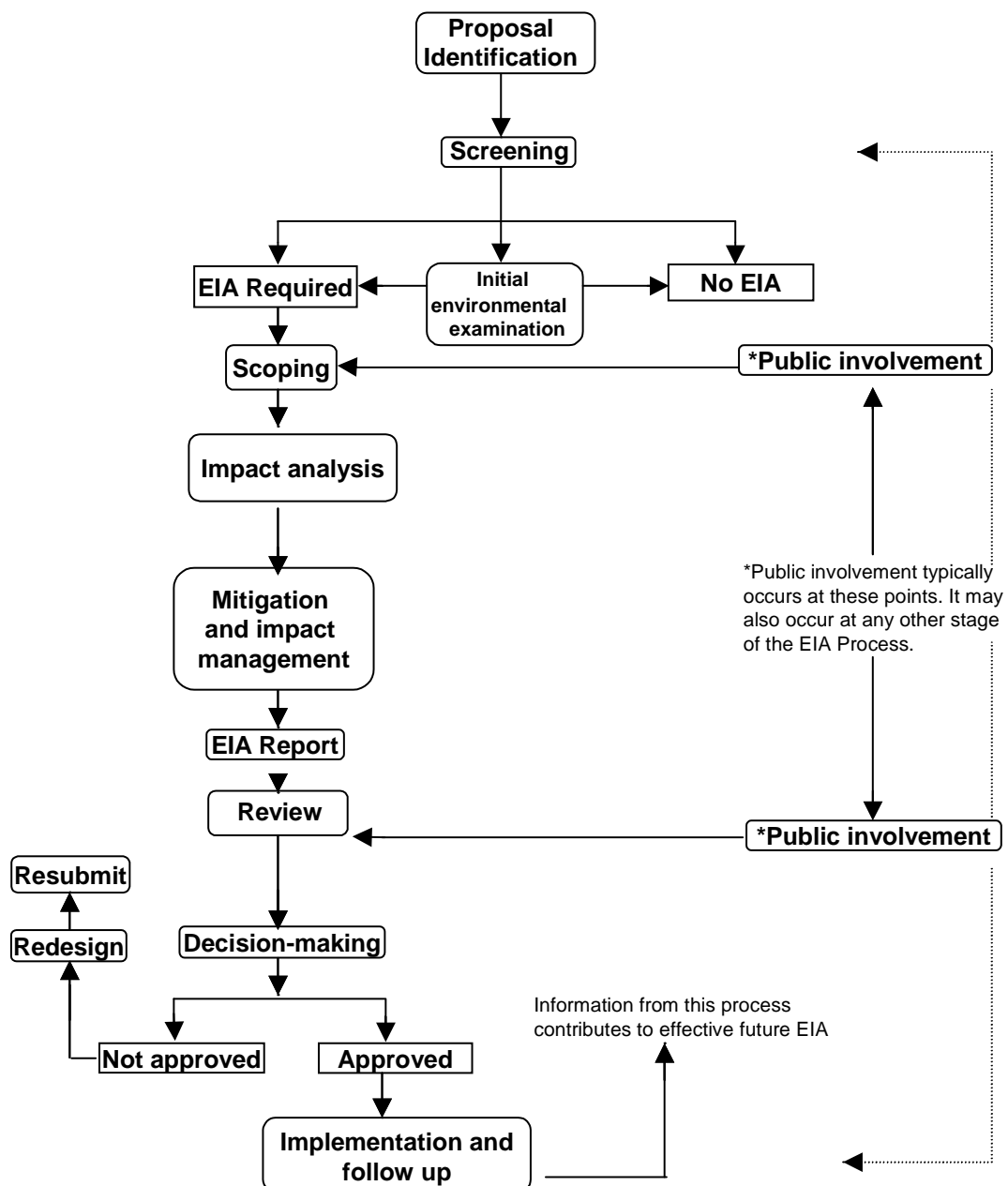
Key operating principles of good EIA practice

EIA should:

- be applied to all proposals with significant impacts
- begin early in the project cycle
- address relevant environmental, social and health impacts
- identify and take account of public views
- result in a statement of impacts and mitigation measures
- facilitate informed decision making and condition setting

Source: Sadler. 1996

Generalised EIA Process Flowchart



The EIA process

The EIA process comprises:

- screening - to decide if and at what level EIA should be applied
- scoping - to identify the important issues and prepare terms of reference
- impact analysis - to predict the effects of a proposal and evaluate their significance
- mitigation - to establish measures to prevent, reduce or compensate for impacts

The EIA process

(continued)

- reporting - to prepare the information necessary for decision-making
- review - to check the quality of the EIA report
- decision-making - to approve or reject) the proposal and set conditions
- follow up - to monitor, manage and audit impacts of project implementation
- public involvement - to inform and consult with stakeholders

Benefits of EIA include:

- environmentally sound and sustainable design
- better compliance with standards
- savings in capital and operating costs
- reduced time and costs for approvals
- increased project acceptance
- better protection of the environment and human health

Delays are caused during EIA when:

- the EIA is commenced too late in the project cycle
- the terms of reference are poorly drafted
- the EIA is not managed to a schedule
- the EIA report is inadequate and needs to be upgraded
- there is a lack of technical data

Ensuring fairness in the EIA process

- register consultants' names and terms of reference
- name consultants and their expertise in the EIA report
- publish the terms of reference in the EIA report
- make EIA reports available to the public
- publish lists of screening and final decisions along with conditions for approval