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

Proposal Identification → Screening

- EIA Required
  - Scoping
    - Impact analysis
  - Mitigation and impact management
    - EIA Report
      - Review
      - Decision-making
        - Not approved
          - Redesign
        - Approved
          - Implementation and follow up

*Public involvement typically occurs at these points. It may also occur at any other stage of the EIA Process.

Information from this process contributes to effective future EIA
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