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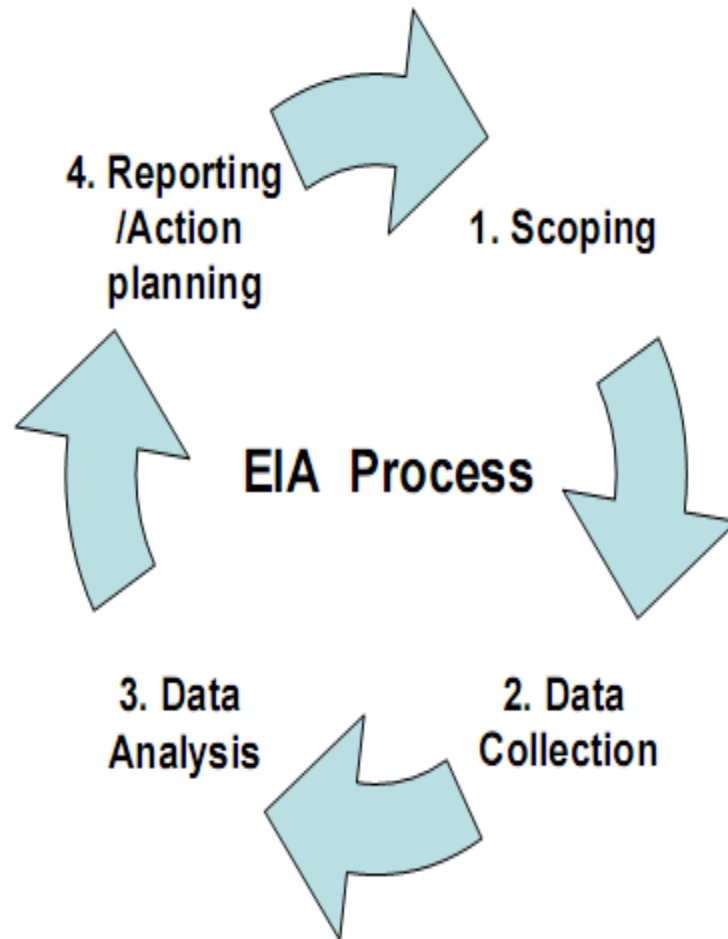
Chapter 2 EIA Process and Method

Objectives for Chapter 2

EIA Process

How to do ?

EIA Process – 4 stages



Developing EIA procedures requires:

- ☞ **government support**
 - ☞ **establishing the basic conditions**
 - ☞ **understanding the relationship to other decision-making processes**
 - ☞ **consideration of the effectiveness of different EIA arrangements**
 - ☞ **identification of the ways in which they can be implemented**
 - ☞ **taking account of key trends and directions for EIA**
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Steps to developing an EIA system

- ☞ **establish goals**
 - ☞ **review other EIA systems**
 - ☞ **identify obligations under Treaties**
 - ☞ **learn from the experience of others**
 - ☞ **incorporate features to move towards sustainability**
 - ☞ **identify procedures and standards**
 - ☞ **develop trial guidelines**
 - ☞ **produce legislation**
 - ☞ **incorporate processes for monitoring and review**
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Principles of public involvement

The process should be

- ☞ **inclusive – covers all stakeholders**
 - ☞ **open and transparent – steps and activities are understood**
 - ☞ **relevant – focused on the issues that matter**
 - ☞ **fair – conducted impartially and without bias toward any stakeholder**
 - ☞ **responsive – to stakeholder requirements and inputs**
 - ☞ **credible – builds confidence and trust**
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Public involvement in key stages of the EIA process

☞ **screening**

determining the need for, and level, of EIA

☞ **scoping**

identifying the key issues and alternatives

☞ **impact analysis**

identifying the significant impacts and mitigating measures

☞ **review**

commenting on/responding to the EIA report

☞ **implementation and monitoring**

checking EIA follow up

Developing a public involvement program typically involves:

- ☞ determining its scope**
 - ☞ identifying interested and affected public**
 - ☞ selecting appropriate techniques**
 - ☞ considering the relationship to decision-making**
 - ☞ providing feedback to stakeholders**
 - ☞ undertaking the analysis of stakeholder inputs**
 - ☞ keeping to budget and time lines**
 - ☞ confidentiality**
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Principles for minimising conflict

- ☞ **involve all stakeholders**
 - ☞ **establish communication channels**
 - ☞ **describe the proposal and its objectives**
 - ☞ **listen to the concerns and interests of affected people**
 - ☞ **treat people fairly and impartially**
 - ☞ **be empathetic and flexible**
 - ☞ **mitigate impacts and compensate for loss and damage**
 - ☞ **acknowledge concerns and provide feed-back**
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The purpose of screening

The purpose of screening is to determine:

- ☞ whether or not a proposal requires an EIA
 - ☞ what level of EIA is required
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Screening and scoping compared

Screening

- ☞ **determines the requirement for EIA**
- ☞ **establishes the level of review necessary**

Scoping

- ☞ **identifies the key issues and impacts**
 - ☞ **establishes the terms of reference**
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Screening methods

- ☞ **legal/policy definition**
 - ☞ **inclusion list of projects (with or without thresholds)**
 - ☞ **exclusion list of projects**
 - ☞ **criteria for case-by-case screening**
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Typical proposals requiring a full EIA

- ☞ **dams and reservoirs**
 - ☞ **(re)settlement and urban development**
 - ☞ **infrastructure (e.g. transport and sanitation)**
 - ☞ **industrial facilities (e.g. manufacturing plants)**
 - ☞ **energy and minerals extraction (e.g. oil & gas, coal)**
 - ☞ **waste management and disposal of hazardous and toxic materials**
 - ☞ **energy development (power stations, transmission lines, pipelines)**
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Location and environmental criteria for screening

The following are important in determining significant effects:

- ◆ assimilative capacity of the natural environment**
 - ◆ environmental sensitivity, e.g. wetlands, coastal and mountain zones**
 - ◆ environmental standards and objectives**
 - ◆ adjacent to protected or designated areas**
 - ◆ within landscapes of special heritage value**
 - ◆ existing land use(s) and commitments**
 - ◆ abundance and quality of natural resources**
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An Initial Environmental Examination (IEE)

- ☞ describes the proposal**
 - ☞ considers alternatives**
 - ☞ addresses the concerns of the community**
 - ☞ identifies potential environmental effects**
 - ☞ establishes mitigation measures**
 - ☞ includes monitoring and follow up (as necessary)**
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Scoping

- ➡ **early step – begins once screening completed**
 - ➡ **open, interactive process – involves the public**
 - ➡ **lays the foundation of an EIA – by identifying**
 - **boundaries of the EIA study**
 - **the information necessary for decision-making**
 - **key issues and significant impacts to be considered**
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Key objectives of scoping

- **find out their concerns**
 - **inform and identify stakeholders**
 - **consider feasible and practical alternatives**
 - **identify the main issues and impacts to be studied**
 - **define the boundaries of the EIA study**
 - **agree on means of public involvement and methods of analysis**
 - **establish the Terms of Reference**
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Guiding principles for the conduct of scoping

- ☞ **scoping is a **process** not an activity or event**
 - ☞ **design the scoping process for each proposal**
 - ☞ ****start early**, as soon as information permits**
 - ☞ **prepare information package on what is expected**
 - ☞ **specify the role of the **public** in decision-making**
 - ☞ **approach should be systematic; implementation should be flexible**
 - ☞ **document the results to guide preparation of EIA**
 - ☞ **respond to new information and issues as necessary**
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Consideration of alternatives

- ☞ **demand alternatives**
 - ☞ **supply or input alternatives**
 - ☞ **activity alternatives**
 - ☞ **location alternatives**
 - ☞ **process alternatives**
 - ☞ **scheduling alternatives**
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Outline Terms of Reference

- ☞ **objectives and background to the proposal**
 - ☞ **study area and boundaries**
 - ☞ **alternatives to be examined**
 - ☞ **opportunities for public involvement**
 - ☞ **impacts and issues to be studied**
 - ☞ **the approach to be taken**
 - ☞ **requirements for mitigation and monitoring**
 - ☞ **information and data to be included in the EIA report**
 - ☞ **timetable and requirements for completion of the EIA process**
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Impact identification methods

- ☞ **checklists**
 - ☞ **matrices**
 - ☞ **networks**
 - ☞ **overlays and geographical information systems (GIS)**
 - ☞ **expert systems**
 - ☞ **professional judgement**
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Choice of EIA method depends on:

- ☞ the type and size of the proposal**
 - ☞ the type of alternatives being considered**
 - ☞ the nature of the likely impacts;**
 - ☞ the availability of impact identification methods**
 - ☞ the experience of the EIA team with their use**
 - ☞ the resources available - cost, information, time, personnel**
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Information required to establish baseline conditions

- ☞ **current conditions**
 - ☞ **current and expected trends**
 - ☞ **effects of proposals already being implemented**
 - ☞ **effects of other proposals yet to be implemented**
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Impact characteristics can vary in:

- ☞ **nature (positive/negative, direct/indirect)**
 - ☞ **magnitude (severe, moderate, low)**
 - ☞ **extent/location (area/volume covered, distribution)**
 - ☞ **timing (during construction, operation etc, delayed)**
 - ☞ **duration (short term/long term, intermittent/continuous)**
 - ☞ **reversibility/irreversibility**
 - ☞ **likelihood (probability, uncertainty)**
 - ☞ **significance (local, regional, global)**
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Test for significance by asking three questions

- ☞ Are there residual environmental impacts?**
 - ☞ If yes, are these likely to be significant or not?**
 - ☞ If yes, are these significant effects likely to occur?**
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Impact significance criteria

- ☞ **environmental loss and deterioration**
 - ☞ **social impacts resulting from environmental change**
 - ☞ **non-conformity with environmental standards**
 - ☞ **probability and acceptability of risk**
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Ecological significance criteria

- ☞ **reduction in species diversity**
 - ☞ **habitat depletion or fragmentation**
 - ☞ **threatened, rare and endangered species**
 - ☞ **impairment of ecological functions e.g.**
 - **disruption of food chains;**
 - **decline in species population;**
 - **alterations in predator-prey relationships.**
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The purpose of mitigation is to:

- ☞ **find better ways of doing things**
 - ☞ **enhance environmental and social benefits**
 - ☞ **avoid, minimise or remedy adverse impacts**
 - ☞ **ensure that residual impacts are within acceptable levels**
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The purpose of impact management is to:

- ☞ ensure mitigation measures are implemented**
 - ☞ establish systems and procedures for this purpose**
 - ☞ monitor the effectiveness of mitigation measures**
 - ☞ take action when unforeseen impacts occur**
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Different names for the same document

- ☞ **Environmental Impact Assessment report (EIA report)**
 - ☞ **Environmental Impact Statement (EIS)**
 - ☞ **Environmental Statement (ES)**
 - ☞ **Environmental Assessment Report (EA report)**
 - ☞ **Environmental Effects Statement (EES)**
 - ☞ **Local usage: enter local terminology**
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EIA Report — description of the **proposal includes:**

- ☞ **main elements, phases and alternatives**
 - ☞ **requirements for materials, water, energy, equipment**
 - ☞ **operational processes and products**
 - ☞ **summary of technical, economic and environmental features**
 - ☞ **comparison of options (e.g. size, location, etc.)**
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EIA Report - description of the **affected environment** includes:

- ☞ **spatial and temporal boundaries**
 - ☞ **baseline conditions** – biophysical, land use, socio-economic
 - ☞ **key trends** and anticipated conditions
 - ☞ **relationship** to other policies, plans and proposals.
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EIA Report – results of **public consultation** includes:

- ☞ **identification of interested and affected stakeholders**
 - ☞ **method(s)** used to inform and involve them
 - ☞ **analysis** of views and concerns expressed
 - ☞ **how** these were taken into account
 - ☞ **issues** remaining to be resolved
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Decision-making is a process of:

- ☞ political choice between alternative directions**
 - ☞ weighing the benefits and costs**
 - ☞ negotiation, bargaining and trade-offs**
 - ☞ balancing economic, social and environmental factors**
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Outcomes from EIA decision-making

- ☞ **proposal approved**
 - ☞ **proposal approved with conditions**
 - ☞ **proposal on hold pending further study**
 - ☞ **proposal returned for revision and resubmission**
 - ☞ **proposal rejected**
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Checks and balances on decision-making

- **no decision taken until EIA report considered**
 - **findings help determine approval and condition setting**
 - **public comment taken into account**
 - **approvals can be refused or withheld**
 - **conditions can be imposed/ modifications demanded**
 - **written reasons for the decision**
 - **right of appeal against the decision**
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