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# **Topic 5**

## **Scoping**

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**Introduction**

**Checklist**

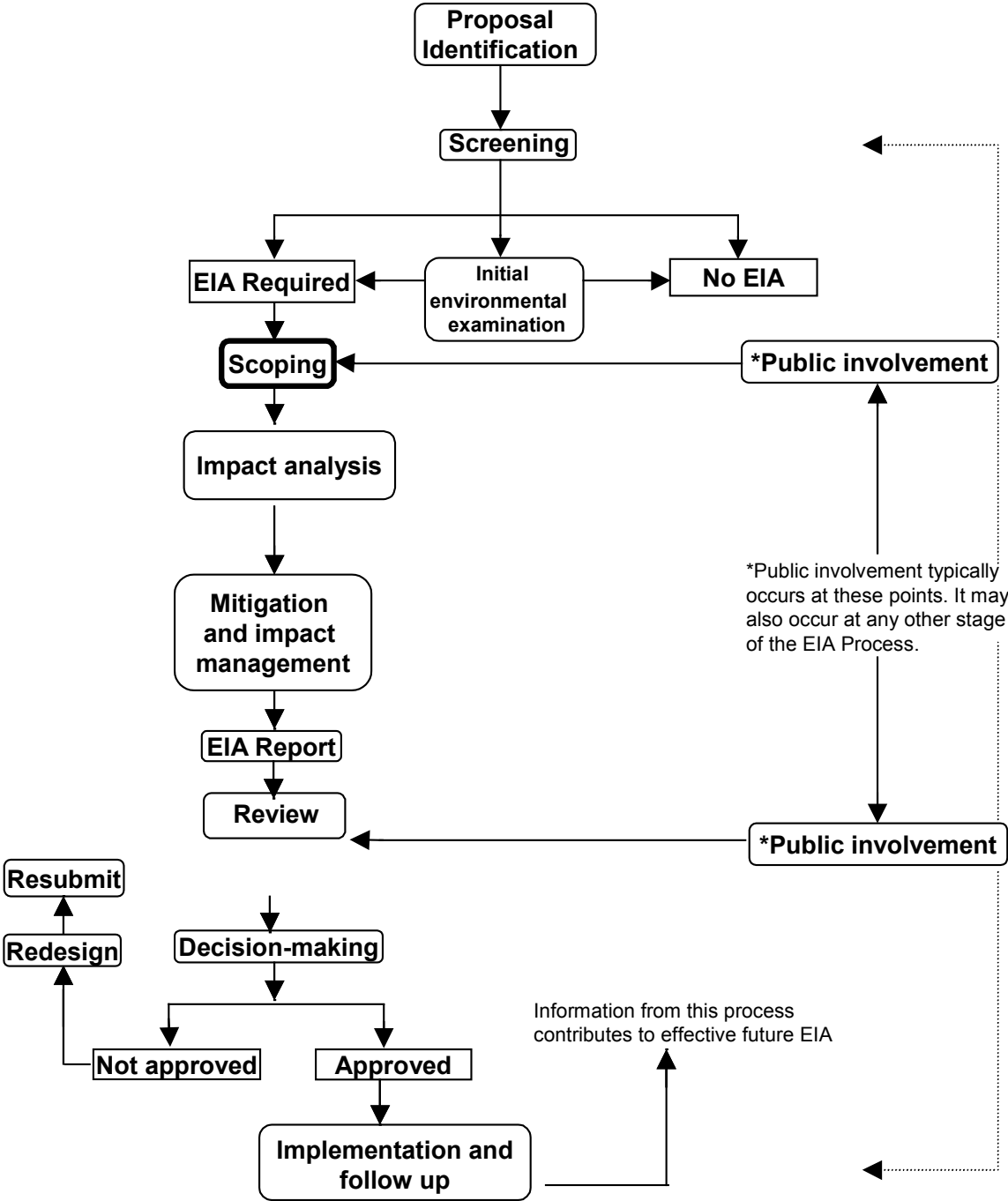
**Session outline**

**Reference list and further reading**

**Training activities**

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# Scoping in the EIA process



## Topic 5—Scoping

### Objectives

To understand the role and purpose of scoping in the EIA process.

To identify principles of scoping and elements of approach.

To gain familiarity with the procedures and methods commonly used in the conduct of scoping.

To recognise the importance of the consideration of alternatives during the scoping phase.

To be aware of the processes for establishing Terms of Reference and boundaries for EIA studies.

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### Relevance

Scoping is a critical, early step in the preparation of an EIA. The scoping process identifies the issues that are likely to be of most importance during the EIA and eliminates those that are of little concern. In this way, EIA studies are focused on the significant effects and time and money are not wasted on unnecessary investigations.

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### Timing

Three hours (not including training activity)

***Important note to trainers***

*You should design your presentation with the needs and background of participants in mind, and concentrate on those sections most relevant to your audience. The session presentation timings are indicative only.*

*Time taken for the training activities can vary enormously depending on the depth of treatment, the existing skills and knowledge of participants and the size of the group.*

**Information checklist**

Obtain or develop the following, as appropriate:

- details of the scoping procedure used locally, including any requirements for public involvement;
- information on the scoping process used in other countries in the region;
- applicable regulations, policies, or guidance relating to scoping;
- sample Terms of Reference or other documents prepared during scoping;
- examples of scoping analyses undertaken locally, which demonstrate good and bad practice;
- indications of the resources necessary to support scoping, in terms of time, people and money;
- copies or results of any research focused on the scoping phase of EIA;
- contact names and telephone numbers of people, agencies, organizations and environmental centres able to provide information on, and assistance in, scoping; and
- other resources that may be available, such as courses on techniques used in scoping, videos, journal articles, computer programmes, lists of speakers, and case studies.

## Session outline

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**Welcome participants to the session by introducing yourself and getting them to introduce themselves. Outline the overall coverage of the session, its objectives and why they are important.**

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1

Scoping is a critical, early step in the preparation of an EIA. The scoping process identifies the issues that are likely to be of most importance during the EIA and eliminates those that are of little concern. Typically, this process concludes with the establishment of Terms of Reference for the preparation of an EIA. In this way, scoping ensures that EIA studies are focused on the significant effects and time and money are not wasted on unnecessary investigations.

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**Outline the role of scoping in the EIA process and encourage the participants to consider, and, if necessary, develop a definition of scoping that is applicable locally. Note that there is often confusion in the terms used by different countries for the early stages of the EIA process (screening, scoping, etc).**

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2

Scoping refers to the early, open and interactive process of determining the major issues and impacts that will be important in decision-making on the proposal, and need to be addressed in an EIA. The requirements and procedures established for this purpose differ from country to country. In many EIA systems, the involvement of the public, as well as the competent authority and other responsible government agencies, is an integral part of the scoping process. Public input helps to ensure that important issues are not overlooked when preparing Terms of Reference and/or initiating the EIA study.

The purpose of scoping is to identify:

- the important issues to be considered in an EIA;
- the appropriate time and space boundaries of the EIA study;
- the information necessary for decision-making; and
- the significant effects and factors to be studied in detail.

In addition, the scoping process can be used to help define the feasible alternatives to a proposed action. Not all EIA systems make provision for the generation or review of alternatives during scoping. These may follow, instead, from the issues that are identified as important. However, consideration of alternatives during scoping is becoming accepted, internationally, as an EIA 'good practice'.

Typically, scoping begins after the completion of the screening process. However, these stages may overlap to some degree. Essentially, scoping takes forward the preliminary determination of significance made in screening to the next stage of resolution – determining which issues and impacts are significant and require further study. In doing so, the scoping process places limits on the information to be gathered and analysed in an EIA and focuses the approach to be taken.

Scoping is completed when Terms of Reference (ToR) or an equivalent document is prepared. This document sets out what the EIA is to cover, the type of information to be submitted and the depth of analysis that is required. It provides guidance to the proponent on how the study should be conducted and managed. Experience shows that the ToR should be a flexible document. The terms may need alteration as further information becomes available, and new issues emerge or others are reduced in importance.

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### **Involve the group in exploring the purpose of scoping in EIA.**

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Scoping provides the foundations for an effective and efficient EIA process. When systematically carried out, scoping highlights the issues that matter and results in Terms of Reference for an EIA that provide clear direction to the proponent on what is required. This increases the likelihood of an adequately prepared EIA report. It helps to avoid the problem of unfocused, voluminous reports and the attendant delay while their deficiencies are addressed and corrected. Scoping thereby helps to make sure that resources are targeted on collecting the information necessary for decision-making and not wasted on undertaking excessive analysis.

The scoping process itself can vary in scope, complexity and time taken. A comprehensive approach to scoping may be needed for large-scale proposals, which have a range of impacts that are potentially significant. In other cases, scoping will be a more limited and restricted exercise. Depending on the circumstances, the scoping process can be tailored to include some or all of the aims listed below.

Key objectives of scoping are to:

- inform the public about the proposal;
- identify the main stakeholders and their concerns and values;
- define the reasonable and practical alternatives to the proposal;
- focus the important issues and significant impacts to be addressed by an EIA;
- define the boundaries for an EIA in time, space and subject matter;
- set requirements for the collection of baseline and other information; and
- establish the Terms of Reference for an EIA study.



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Explore with the group guiding principles for the scoping process. Introduce the elements of a comprehensive approach to scoping and ask participants whether and how these might be applicable locally.

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4

Guiding principles for carrying out the scoping process include the following:

- recognise scoping is a process rather than a discrete activity or event;
- design the scoping process for each proposal, taking into account the environment and people affected;
- start scoping as soon as you have sufficient information available;
- prepare an information package or circular explaining the proposal and the process;
- specify the role and contribution of the stakeholders and the public;
- take a systematic approach but implement flexibly;
- document the results to guide preparation of an EIA; and
- respond to new information and further issues raised by stakeholders.



5

The elements of scoping differ to some degree with the EIA requirements established by different countries and international agencies. A comprehensive scoping process will include all or a combination of the following functions:

- identify the range of community and scientific concerns about a proposed project or action;
- evaluate these concerns to identify the significant issues (and to eliminate those issues which are not important); and
- organize and prioritise these issues to focus the information that is critical for decision making, and that will be studied in detail in the next phase of EIA.

A systematic and transparent approach should be taken to sifting and paring down the concerns, issues and impacts. This can be undertaken in three steps (corresponding to those listed above):

*Step 1* – compile a ‘long list’ of concerns from the information available and the inputs of stakeholders. No attempt should be made at this stage to exclude or pre-judge concerns.

*Step 2* – derive a ‘short list’ of key issues and problem areas based on their potential significance and likely importance for decision-making on the proposal. This phase involves evaluating the issues against selected criteria; for example, differentiating serious risks or threats from effects that can be mitigated (see Topic 6 – *Impact analysis* and Topic 7 – *Mitigation and impact management* for further information).

*Step 3* – classify and order the key issues into ‘impact categories’ by reference to policy objectives and scientific concepts, such as emission levels that may exceed health or environmental standards. Such a synthesis or aggregation provides a coherent framework for drafting the Terms of Reference for the EIA study.

Box 1 contains an indicative list of activities to be carried out when scoping in accordance with this approach. The list begins with ‘getting ready’ by preparing a profile of the scope under key headings and using this as a basis for informal consultations with key stakeholders. Once this round of discussion has occurred, the three steps described above take place with iterations between them. Finally, the Terms of Reference are established, with provision for adjustment and feedback as and when necessary during the EIA process.

In practice, the first phase of scoping – opening out the list of concerns and issues – is much easier to achieve than the next two. With few exceptions, most EIA systems experience difficulties in narrowing down and focusing on the issues that matter. This imposes certain limitations when preparing Terms of Reference, with potential knock on effects on the next stage of work on the EIA study. Ultimately, it is the responsibility of the proponent or competent authority to bring the scoping process to a conclusion.



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#### **Box 1: Indicative list of scoping activities**

##### **Getting ready**

1. Prepare a preliminary or outline scope with headings such as:
  - objectives and description of the proposal
  - the policy context and environmental setting
  - data and information sources, constraints etc.
  - alternatives to the proposal
  - concerns, issues and effects identified to date
  - provision for public involvement
  - timetable for scoping, EIA and decision making
2. Develop the outline scope by informal consultation and by assembling available information, identifying information gaps, etc.
3. Make the provisional scope and supporting information available to the public.

##### **Undertaking scoping**

4. Draw up a long list of the range of issues and concerns.
5. Evaluate their relative importance and significance to derive a short list of key issues.
6. Organise the key issues into the impact categories to be studied.



**Completion and continuity**

7. Amend the outline scope to progressively incorporate the information from each stage.
8. Establish the Terms of Reference for the EIA, including information requirements, study guidelines, methodology and protocols for revising work.
9. Monitor progress against the ToR, making adjustments as needed and provide feedback to stakeholders and the public.

*(As stated these steps are only indicative, and should be tailored to meet the requirements of the particular situation.)*

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**Outline procedures and methods commonly used for the conduct of scoping and describe briefly how they can be useful. Note that although scoping is an early step in an EIA, the importance of issues is continually re-evaluated as new information becomes available.**

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Depending upon the EIA system, responsibility for scoping may lie with the proponent, with the competent authority, or with the EIA agency or an independent body set up for the purpose. In many cases, some form of guidance will be given on the conduct of scoping, the procedures to be followed and the methods that can be used to undertake the consultative and technical components of this activity. For specific proposals, it may be possible to draw upon previous experience, represented by existing scoping documentation for a similar proposal, or generic or sector guidelines and checklists. None of these aids, however, replace the need for designing a scoping process for each proposal and its likely consequences.

A custom-tailored scoping process will include an overview or profile of the proposal, the environment and community that is likely to be affected, the possible alternatives, the range of potential impacts, and the ways these may be mitigated or managed. In addition, the following should be addressed:

- geographical area(s) and the time-frame(s) for impact analysis;
- the policy and institutional frameworks under which the EIA will be conducted;
- existing information sources, gaps and constraints on methodology;
- the scheduling of the EIA study, and the allocation of resources and responsibilities; and
- the relationship to the decision-making process – including modification of design and selection of alternatives – as well as final approval of the proposal.

The use of impact models or cause-effect frameworks may be helpful during scoping of large-scale proposals, which have a wide range of potentially

complex effects on the environment. But they can also have value in other cases where it is sometimes easy to overlook long-term and secondary impacts of proposals. For example, waste discharged into the air or waterways can extend a long way beyond the boundaries of a project, and heavy metals can bio-accumulate in species and food chains. The identification of such potential impacts can be assisted by a systematic consideration of the various phases of the project life cycle, from construction through operation to decommissioning.

A proposed plan for public involvement in the EIA process (including the scoping phase) should be prepared. Early consideration should be given to the means of informing and involving the people who are likely to be directly affected by or interested in a proposal. A first step is to draw up a list of participants who should be involved in scoping. Both the overall approach to scoping and the mechanisms for consultation need to take into account local values, traditions and culture (see Topic 3 – *Public involvement*).

The following public involvement methods are used in the conduct of scoping:

- notification/invitation for public comment and written submissions;
- consultation with the various stakeholders;
- public and community meetings; and
- issues workshops and facilitated discussion.

Although scoping is a distinct, early process within EIA, the significant effects continue to be re-interpreted throughout an EIA study, the decision-making process and project implementation and monitoring. Unforeseen issues that require further consideration may arise in any of these phases. The work undertaken for an EIA study on a particular issue (the impact of toxic effluent on aquatic species and human health, for example) may uncover further questions, some of which may become contentious. In some cases, earlier guidance may need to be revisited, for example relating to data collection and analysis or the criteria used to interpret the significance of effects. Ultimately there are no 'right' answers to these questions, just a succession of judgements that try to balance the available resources for the study (both time and money) with the legitimate concerns of the participants.

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**Ask the group to outline the possible roles in scoping of the various stakeholders in the EIA process.**

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***The proponent/competent authority:***

will know most about the proposal, and have a strongly developed view about the factors that will influence the site selection and other aspects of decision-making. It is common for the proponent or the competent authority to have responsibility for scoping. The scoping process helps them to recognize the perspective of others, to consider alternatives and concerns of those affected, and to make changes to the proposal, which will address these inputs.

***The EIA administering body:***

will generally establish and oversee statutory or procedural requirements for scoping. The requirements for scoping may cover the matters to be addressed, the people to be consulted, and the form of consultation. The administering body may issue Terms of Reference for the EIA, and/or review and approve the EIA report submitted by the proponent, checking it against the agreed scope.

***Other responsible agencies:***

will contribute relevant information about specific issues and matters within their jurisdiction. This information may include specific legislative requirements, policy objectives, and standards, technical knowledge and expertise, and experience with similar projects or local conditions. Certain agencies other than the competent authority also may have the role of providing licences, permits, approvals or leases. Knowledge of these requirements is essential at the scoping stage.

***EIA practitioners and experts:***

may act directly for the agencies involved or for the proponent as consultants retained for the EIA work, or they may function in an advisory or review capacity on behalf of scientific, NGO or professional bodies. Their involvement can be of particular value in providing specialist knowledge.

***Those people affected by the proposal:***

will have a major role in identifying concerns and issues and providing local knowledge and information. Their views should be taken into account in choosing between alternatives, in deciding on the importance of issues, and in identifying mitigating measures, compensation provisions and management plans. Affected communities may need help in understanding the proposal, its alternatives, and their likely effects, and in organising and articulating their concerns to those involved in the EIA process.

***The wider community:***

will also provide information and views that are relevant to scoping. This grouping includes those indirectly affected by the proposal, and local,

national and sometimes international NGOs and interest groups. Further information on undertaking a dialogue with stakeholders can be found in Topic 3 – *Public Involvement*.

By involving the public, scoping helps to build confidence in the EIA process. Often, the scoping process is the first major point of contact with the stakeholders who are affected by or interested in the proposal and the alternatives. It provides an important opportunity to inform them about the proposal and the EIA process, to understand their concerns and to set out the role and contribution of public involvement in decision-making. Experience indicates that where scoping responds to stakeholder and public inputs, even though it cannot always accommodate them, there is likely to be increased acceptance of the EIA and decision making processes.

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**Discuss ways in which the identification and consideration of alternatives can be undertaken.**

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The consideration of alternatives to a proposal is a requirement of many EIA systems. It lies at the heart of the EIA process and methodology. During the scoping process, alternatives to a proposal can be generated or refined, either directly or by reference to the key issues identified. A comparison of alternatives will help to determine the best method of achieving project objectives while minimising environmental impacts or, more creatively, indicate the most environmentally friendly or best practicable environmental option.

Often, however, the consideration of alternatives is a superficial rather than a meaningful exercise. This is particularly true of private sector proposals, where the requirement to analyse alternatives is less than for comparable public sector proposals. It is also true of all proposals that are submitted to EIA when planning is nearly complete and the components and location are fixed already. This practice is becoming less and less acceptable as EIA matures and as sustainability issues and cumulative effects take on greater importance.

The consideration of alternatives is likely to be most useful when the EIA is undertaken early in the project cycle. Depending on timing, the type and range of alternatives open to consideration might include:

- demand alternatives (e.g. using energy more efficiently rather than building more generating capacity);
- input or supply alternatives (e.g. where a mix of energy sources permits);
- activity alternatives (e.g. providing public transport rather than increasing road capacity);

- location alternatives, either for the entire proposal or for components (e.g. the location of a dam and/or irrigation channels);
- process alternatives (e.g. use of waste-minimising or energy-efficient technology); and
- scheduling alternatives (e.g. for airport and transport operations, reservoir drawdown).

The World Bank recommends a tiered approach to the analysis of alternatives, which broadly corresponds to the headings above. It is designed to bring environmental considerations into all stages of development planning. This approach, ideally, begins with strategic environmental assessment (SEA) to analyse broad alternatives within a sector (such as power) or for a region (see Topic 14 – *Strategic Environmental Assessment*). When this framework is not in place, as is frequently the case, the key alternatives are examined as part of a project-specific EIA. An application of the tiered approach in this context is illustrated in Box 2.

In many cases, a fully tiered approach may not be possible. Certain alternatives will have been foreclosed by earlier stages of decision-making. However, some alternatives may remain open and a preliminary scan can help to identify them. Normally, a retroactive analysis of alternatives is not considered to be good practice unless circumstances warrant; for example a proposal may be well advanced but have a potentially significant impact on the environment or involve the relocation of large numbers of people (see Box 2).

The development of feasible alternatives, to meet the overall objectives of the proposal calls for certain types of information and knowledge. During this process, for example, reference may be made to: available technology, policy objectives, social attitudes, environmental and site constraints and project economics (see Box 3). It is important to make sure that the alternatives chosen for comparison with a proposal can be implemented cost-effectively. Stakeholder input can be helpful in the generation and analysis of viable alternatives, but this needs to be used selectively. For example, the affected communities would have a minimal role in the review of demand and supply-side alternatives to the Nam Theun II project (as described in Box 2) but a primary one in assessing the environmental and social suitability of location alternatives.

The range of alternatives selected for analysis routinely includes the 'no action' alternative. The relative impact of each alternative is compared against the baseline environment (with versus without project) to select a preferred alternative, including taking no action (which may not correspond exactly to maintaining baseline conditions because changes result from other actions).

In many EIA studies, the preferred alternative will be the most closely examined, and may be the only alternative to be considered in detail. However, it is not uncommon for several alternatives to be investigated at the same level of detail during the impact analysis and evaluation phases, prior to selecting from among them.

**Box 2: Tiered approach to analysis of alternatives (Laos)**

The 600 MW Nam Theun II Hydroelectric Dam is intended to strengthen the revenue and economic base of the People's Democratic Republic of Laos by exporting power to Thailand. When submitted to the World Bank, the dam height, location and reservoir surface area had been established already. The Bank asked the proponents to return to the objectives and conduct an alternatives analysis against them, in effect a re-scoping process.

The following aspects were considered:

- evaluation of the potential for demand side management (DSM)
- identification and screening of alternative energy sources to hydropower
- evaluation of realistic alternative energy sources
- comparative assessment of alternatives
- identification of hydroelectric alternatives
- evaluation of hydroelectric alternatives
- comparative assessment of hydroelectric alternatives
- comparison of conceptual and design alternatives for the proposed project

The results were used in national power sector planning by the Lao PDR; in planning by development finance institutions for their activities in the region and the power sector; for planning by private investors; in identifying stakeholder concerns; and as an input to preparation and environmental assessment of Nam Theun II project components.

*Source: World Bank (1996)*

**Box 3: Siting alternatives in an EIA for a hydropower project (Pakistan)**

The Ghazi-Barotha Hydropower Project is a major run-of-river power project designed to meet the acute power shortage in Pakistan. The main project elements include a barrage located on the Indus River, a power channel (designed to divert water from the barrage) and a power complex. Alternative locations for these elements were evaluated based on technical, economic, environmental and social constraints by an interdisciplinary project team and reviewed by an external environmental and resettlement panel.

Initial assessment of five barrage sites identified by the project consultants resulted in two options being selected for detailed evaluation. The preferred option has less

storage capacity than the main alternative, but was preferable in terms of environmental impact.

The most economical alignment for the power channel would have necessitated resettlement of an estimated 40,000 people. Moving the alignment to less densely populated areas, although technically more complex and financially less attractive, reduced the resettlement requirement to approximately 900 people. Additional modifications further reduced the impact on archaeological sites and graveyards.

Five power complex sites were initially studied, and three remained for detailed evaluation. Topographical factors determined the preferred option, as the environmental implications were broadly similar in each case. Sub-elements of the power complex, such as access roads, head pond capacity and embankments, were chosen based on environmental and technical considerations.

Finally, four alternative alignments were evaluated for the 500 kV transmission line connections to the main grid station. The selected routes had minimal environmental and socio-cultural impacts. Detailed design focused on choosing alignment and tower locations with minimal impacts on dwellings, agricultural land and archaeological sites.

*Source: World Bank (1996)*

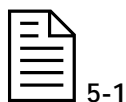
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**Ask the group to identify the types of information that could be required by Terms of Reference for an EIA.**

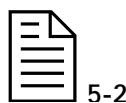
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In concluding the scoping process, the preparation of Terms of Reference (ToR) for an EIA is an important task. Alternatively, or as a supplement to ToR, a formal scoping report may be issued (especially useful if the issues and/or process are controversial). In some EIA systems, the proponent prepares a more informal document to summarise the conclusions of scoping and the approach to be taken by an EIA study. The test for Terms of Reference (or its equivalent) lies in its usefulness to and robustness in successive stages of the EIA process.

A number of international agencies have issued sample or framework Terms of Reference, including the World Bank (see Handout 5 - 1) and the OECD Development Assistance Committee (see Handout 5 - 2 ). These and other generic documents outline the types of information to be included in a ToR or equivalent document. When reviewing these, it is important to remember that Terms of Reference provide guidance and direction to the proponent. The document should be comprehensive yet as concise as possible. Many of the components listed below will occupy a paragraph or less.



5-1



5-2

Terms of Reference for a full EIA can refer to some or all of the following items:



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- purpose and application of the Terms of Reference;
- statement of need for and objectives of the proposal;
- project background and description;
- study area or impact zone(s) (e.g. the affected environment and community);
- applicable policy and institutional considerations;
- EIA requirements and decision-making particulars;
- provisions for public involvement;
- alternatives to be examined;
- the impacts and issues to be studied;
- the studies to be carried out (e.g. approach, time & space boundaries);
- the requirements for mitigation and monitoring;
- the information and data to be included in the EIA report;
- the timeframe for completion of the EIA process; and
- the means for making changes to the ToR if necessary.

The Terms of Reference can also contain various matters relating to EIA project management. Alternatively, these may be contained in a separate brief or specification drawn up by the proponent for the study team. The following particulars might be included:

- the proposed study schedule;
- the resources and estimated budget for the study;
- the activities and responsibilities of the study team;
- the expected outputs or deliverables from the study team; and
- the basis on which variations to the working brief will be negotiated.

Topic 12 – *EIA project management* gives more detail on the management of projects, including the building of a team, budgeting and reporting.

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**Include a training activity to reinforce the topic (if desired).**

**Conclude by summarising the presentation, emphasising those key aspects of the topic that apply locally.**

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## Reference list

The following references have been quoted directly, adapted or used as a primary source for major parts of this topic.

Canada, Federal Environmental Assessment Review Office (1987) *Determining the Scope of Environmental Impact Assessments*. FEARO Regional Office, Vancouver.

Canter L and Clark R (1997) Scoping in the EIA Process in the United States in *Report of the EIA Process Strengthening Workshop*. (pp. 31-47). Environment Protection Agency, Canberra.

New Zealand, Ministry for the Environment (1992) *Scoping of Environmental Effects*. Ministry for the Environment, Wellington.

OECD/DAC (1994) *Towards Coherence in Environmental Assessment. Results of the Project on Coherence of Environmental Assessment for International Bilateral Aid*. Vol. 2. Canadian International Development Agency, Ottawa.

Sadler B (1997) EIA Process Strengthening – Perspectives and Priorities in *Report of the EIA Process Strengthening Workshop*. (pp. 1-29). Environment Protection Agency, Canberra.

US Council on Environmental Quality (1981) *Memorandum: Scoping Guidance*. Council on Environmental Quality, Washington. D.C.

World Bank (1996) *Analysis of Alternatives in Environmental Assessment. Environmental Assessment Sourcebook Update No. 17*. Environment Department World Bank, Washington. D.C.

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## Further reading

European Commission (1995) *Scoping in Environmental Impact Assessment – A Practical Guide*. Directorate General for Environment, Nuclear Safety and Civil Protection, Brussels.

European Commission (1996) *Environmental Impact Assessment. Guidance on Scoping*. Directorate General for Environment, Nuclear Safety and Civil Protection, Brussels.

Jones C (1999) Screening, Scoping and Consideration of Alternatives in Petts J (ed) *Handbook of Environmental Impact Assessment*. (Vol. 1, pp. 201-228). Blackwell Science Ltd, Oxford, UK.

## References and further reading

Netherlands, Commission for Environmental Impact Assessment (1994) *EIA Methodology: Scoping of Alternatives – A Study Based on Ten Representative Cases*. Commission for Environmental Impact Assessment, Utrecht.

Sadler B (1996) *Environmental Assessment in a Changing World*. Final Report of the International Study of the Effectiveness of Environmental Assessment. Canadian Environmental Assessment Agency and International Association for Impact Assessment, Ottawa.

Scott Wilson Ltd. (1996) *Environmental Impact Assessment: Issues, Trends and Practice*. Environment and Economics Unit, UNEP, Nairobi.

World Bank (1995) *Environmental Assessment Challenges and Good Practice*. Paper No. 018. Environment Division, Washington D.C.

World Bank (1991) *Environmental Assessment Sourcebook*. Volume 1. World Bank Technical Paper No. 139, Washington, D.C.

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## Training activities

*Training activities will be more instructive if they are framed around a local proposal. Consider inviting prospective course participants to make a presentation if they have expertise in this area of EIA.*

### Discussion themes

- 5-1 'The scoping phase should result in a conclusive list of matters which will be addressed in the EIA study; issues suggested at later stages should not be considered.' Is this view tenable?
- 5-2 Why is it important to define the purpose and objectives of a proposal, and the alternatives to be considered? Do these reasons apply equally to private and public sector proposals? What about proposals like mining where the location of the ore body is fixed?
- 5-3 'Sectoral guidelines can obviate the need for scoping.' Discuss and explore how scoping practices might supplement such general guidelines in a particular case.
- 5-4 Discuss the difference between primary and secondary impacts, in relation to a dam, a tourism facility, a major highway, a nuclear power station or a paper mill.
- 5-5 How much information should the proponent assemble before scoping commences? Can the proponent collect too much information too early, and if so, what are the likely consequences?
- 5-6 Who should make decisions on the relative significance of issues? What factors will influence such decisions during scoping?
- 5-7 What sources of data should be investigated prior to scoping? Why is it necessary to identify data gaps, and to collect data in such areas? How can different data needs affect the time and cost of EIA studies?

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### Speaker theme

- Invite a project manager for a development company or a competent authority to talk about experiences with scoping for an EIA reviewing the following questions. What procedure was followed? Which steps were taken? Did the list of key issues identified through scoping need to be extended during the later stages of the study? Were local communities involved? How useful was their input compared to the assistance of EIA experts? What changes were made to the initial proposal as a result of the issues generated during the scoping phase? What further changes were made, for example during later in-depth investigation of those issues?
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## Group Activity 5-1: Scoping

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**Title:** Scoping a proposed development

**Aim:** To develop an appreciation of the scoping process by undertaking scoping for a local project (preferably real, but if not hypothetical)

**Group size:** Four to six people

**Duration:** Half day to whole day (as required)

**Resources required:**

- A case study description of a (real or hypothetical) proposal, with some details of its setting.
- Notes on scoping provided to the course participants, together with some form of checklist or sectoral guidelines.

**Description of activity:**

Each member of the small group will take a role as the representative of the proponent, the EIA administering body, the competent authority, the affected local community, and a regional NGO that has a direct interest in the proposal. As necessary, add representatives for other responsible government agencies, environmental NGOs, etc.

Using the case study provided:

- each member of the group should separately consider, from the perspective of their role, the range of alternatives that might be considered (consult the typology of options in the notes – demand, activity, location, process etc. – and refer to Handout 5-1);
  - discuss the range of alternatives generated, and agree which ones should be taken forward for further study;
  - each member should make a list of the likely impacts of the proposal; compare the lists and reach consensus on the key issues;
  - select three of the key issues, and detail the study programme necessary to adequately address each issue; and
  - prepare Terms of Reference for the EIA study (refer to Handout 5-2), covering the agreed alternatives and the three selected issues.
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## Group Activity 5–2: Scoping

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**Title:** Initiating the scoping process

**Aim:** To understand the information needs at the beginning of the scoping process

**Group size:** Three or four people

**Duration:** Half-day in total comprising one hour's preparation, and a further one hour during which each group can make their presentation (10 to 15 minutes per group). Conclude with a general discussion of the merits of each presentation.

**Resources required:**

- Brief case study description of a proposal, the setting and the nature of the surrounding communities.

**Description of activity:**

Participants are required to develop a presentation to a meeting of local residents (the rest of the group), at which the proposal is to be unveiled, and the scoping process commenced. The presentation should be planned to cover:

- the purpose of the meeting;
  - the objectives of the proposal;
  - the requirements of the EIA and scoping processes;
  - the likely impacts of the proposal and how they will be managed;
  - how the community can become involved in the scoping process;
  - what other opportunities will be provided for the community to voice their concerns;
  - how the proponent proposes to conduct the EIA, including the studies to be undertaken; and
  - the timetable proposed for the completion of the EIA and the decision-making process.
-



1

**Flowchart of the EIA process**

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2

**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
- 



3

**Key objectives of scoping**

- inform and identify stakeholders
  - find out their concerns
  - 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
  - establish the Terms of Reference
- 



4

**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
- 



5

**The conduct of scoping**

- identify range of concerns
  - evaluate them to determine key issues
  - categorize the impacts that require study
  - establish a strategy for addressing them
-



6

### Steps in the scoping process

- prepare an outline scope
- develop the outline through informal consultation
- make the outline available
- compile the range of concerns (long list)
- evaluate these to establish key issues (short list)
- organise these into impact categories (study list)
- amend the outline to incorporate the above information
- develop Terms of Reference
- monitor progress against them, revising as necessary



7

### Who should be involved in scoping?

- the proponent
- the competent authority
- the EIA administering body
- other responsible agencies
- EIA practitioners and experts
- key stakeholders i.e. those affected by the proposal
- the wider community



8

### Consideration of alternatives

- demand alternatives
- supply or input alternatives
- activity alternatives
- location alternatives
- process alternatives
- scheduling alternatives



9

### 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

## Framework Terms of Reference for environmental assessment of development assistance projects

TOPICS TO BE ADDRESSED	BASIC REQUIREMENTS	PROCEDURAL CONSIDERATIONS	OPERATIONAL CONSIDERATIONS	PROJECT STAGES
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## A FRAMEWORK TERMS OF REFERENCE FOR ENVIRONMENTAL ASSESSMENT OF DEVELOPMENT ASSISTANCE PROJECTS

(From OECD/DAC, (1994) *Towards Coherence in Environmental Assessment — Results of the Project on Coherence of Environmental Assessment for International Bi-lateral Aid. Canada*)

TOPICS TO BE ADDRESSED	BASIC REQUIREMENTS	PROCEDURAL CONSIDERATIONS	OPERATIONAL CONSIDERATIONS	PROJECT STAGES
<b>A. INTRODUCTION</b>				
1. BACKGROUND	<i>Introduce the project and the most critical environmental issues involved.</i>	Briefly review the events leading up to the conduct of the assessment.	List the main participants in the assessment process.	Concept (i) Pre-feasibility (s) Feasibility (s)
<b>B. CONTEXT</b>				
2. THE PROBLEM	<i>Summarise the basic developmental issue or problem being addressed by the proposed activity, i.e., pollution, flooding, drought, erosion, energy shortage, poor health, depressed economy, etc.</i>	Characterise the issue or problem in its broader national context, i.e., historical perspective, root causes, implications for development, and prior attempts at resolution.	As they become available, use results from the environmental assessment to refine the problem statement.	Concept (i) Pre-feasibility (s) Feasibility (s)
3. PROPOSED SOLUTION	<i>Summarise the way in which the proposed activity is expected to resolve the issue, or solve or alleviate the problem, with the emphasis on sustainability.</i>	Describe the critical requirements for the proposed activity to be successful in the long-term, and identify the major risks and benefits involved.	Identify the technical or operational aspects of the project that are most problematic in terms of achieving sustainability.	Concept (i) Pre-feasibility (s) Feasibility (s)
4. CO-OPERATION AMONG JURISDICTIONS	<i>Summarise the agreement or arrangements between the donor(s) and the recipient country under which the environmental assessment is being conducted.</i>	Describe the sharing of roles and responsibilities, emphasising the lead role to be played by the recipient country in the conduct of the assessment.	Provide a brief overview of other relevant past cooperative efforts between the donor and the recipient country, including strategies for capacity development.	Concept (i) Pre-feasibility (s) Feasibility (s)
5. OBJECTIVES OF THE ASSESSMENT	<i>State clearly the objectives of the assessment and the relationship of the results to project planning, design, implementation and follow-up.</i>	For donor and recipient country, highlight critical points in the decision making process linking environmental assessment and project execution.	Note those aspects and outcomes of the project which are considered most likely to be affected by the results of the assessment.	Pre-feasibility (s) Feasibility (s)
<b>C. INSTITUTIONAL SETTING</b>				
6. LEGAL/POLICY BASE	<i>Summarise the legal, policy and procedural bases for environmental assessments in the recipient country and the donor agency.</i>	Identify potential areas of conflict or disagreement and describe how these have been, or can be, overcome.	Ensure agreement on sensitive issues, such as pollution standards, criteria for impact evaluation, relocation and compensation.	Concept (i) Pre-feasibility (s) Feasibility (s)



Framework Terms of Reference for environmental assessment of development assistance projects

**Key** s – if stage occurs concurrently with assessment  
 r – influenced by results of assessment

i – information sources for the assessr

7. INSTITUTIONAL CAPACITY	<i>Summarise and provide an appraisal of the strengths and limitations of the recipient country in the various fields of environmental protection and management.</i>	Assess capacity and past experience of institutions in managing domestic and foreign assistance projects; identify capacity building needs (including training).	Focus on key aspects, including the number and competency of staff, size of operational budgets and availability of appropriate technology and equipment.	Concept (i) Pre-feasibility (s) Feasibility (s)
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**D. ALTERNATIVES**

8. ALTERNATIVES TO THE PROJECT

(a) Policy Interventions	<i>Assess the potential for achieving the basic developmental objective by interventions at the policy level.</i>	Evaluate options such as using economic instruments, controlling supply and demand, and encouraging reuse/ recycling.	Identify key potential constraints, such as lack of expertise, and inefficient administrative systems.	Concept (i) Pre-feasibility (s) Feasibility (s)
(b) Other Projects	<i>Assess the potential for achieving the basic developmental objective by implementing other projects which are substantively different than the one proposed.</i>	Assess reasonable options, such as alternative sources (for energy projects), alternative modes (for transportation projects) and alternative practices (for agricultural projects).	Identify key constraints, such as the inadequacies of existing infrastructure, time limitations and a lack of financial resources.	Concept (i) Pre-feasibility (s) Feasibility (s)

9. ALTERNATIVES WITHIN THE PROJECT

<i>Evaluate potential alternatives for key aspects of the proposed project, i.e., options for siting, waste management, energy conservation and pollution control technologies.</i>	Assess the potential to implement such alternatives, depending upon the specifics of the project and the design options available.	Identify the most reasonable alternatives and incorporate them into the detailed analysis of environmental impacts.	Prefeasibility (s) Feasibility (s)
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**E. INSTITUTIONAL AND PUBLIC INVOLVEMENT**

10. INSTITUTIONAL COOPERATION	<i>Show clearly how the proposed project conforms with the overall development strategy and priorities of the recipient country.</i>	Describe the manner and extent to which other government institutions in the recipient county were consulted or participated in the assessment.	Describe the procedures us to gain access to informati held by other agencies, and what extent they were successful.	Pre-feasibility (s) Feasibility (s)
11. PUBLIC INVOLVEMENT	<i>Show how affected groups and NGOs in the recipient country, and interested publics in the donor country, were given the opportunity to participate in the assessment process.</i>	Explain the manner in which information was distributed to, and received from, members of the public, and how that information was used in project planning.	Describe efforts at public scoping, and explain how t results were used to focus i assessment on critical issue particularly in regard to collection and interpretatio data.	Pre-feasibility (s) Feasibility (s)

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## Framework Terms of Reference for environmental assessment of development assistance projects

TOPICS TO BE ADDRESSED	BASIC REQUIREMENTS	PROCEDURAL CONSIDERATIONS	OPERATIONAL CONSIDERATIONS	PROJECT STAGES
<b>F. REQUIRED INFORMATION AND DATA</b>				
12. DESCRIPTION OF PROJECT	<i>Describe the project (design life, location, layout, size, capacity, activities) inputs (land, raw materials, energy) and outputs (products, by-products, emissions).</i>	Identify indirect impacts arising from induced changes in land use or ownership and from utilisation of local natural resources as raw material for the project.	Identify and quantify sources of impacts, i.e., emissions, effluents, waste products and noise, with particular emphasis on toxic materials.	Pre-feasibility (s) Feasibility (s)
13. DESCRIPTION OF ENVIRONMENT	<i>Identify study boundaries which can provide baseline data on relevant (as determined from scoping results) physical, ecological, economic, social, cultural and demographic conditions within those boundaries.</i>	Clearly show how information received from the general public through a scoping process was used to limit and focus baseline studies on the important issues.	Identify and quantify receptors of impacts, i.e., components of ecological systems at risk, vulnerable human groups (and sub-groups) and valued resources.	Pre-feasibility (s) Feasibility (s)
14. INFORMATION QUALITY	<i>Assess the quality of all information, identify data gaps, and summarise the limitations placed on the assessment from such deficiencies.</i>	Recommend measures to ensure that important data bases of reliable quality will be established and maintained for future projects.	Where appropriate and feasible, design the monitoring plan for the proposed project to fill the identified data gaps.	Pre-feasibility (s) Feasibility (s) Monitoring and Evaluation (r)
<b>G. ANALYSIS OF IMPACTS</b>				
15. POSITIVE IMPACTS	<i>Predict how the lives of the affected people will be improved and any enhancement of natural systems resulting from project implementation.</i>	Focus on values determined through scoping, i.e., traditional economy, improved health, better living conditions, conservation of local ecosystems.	Use quantitative analysis where possible; take account of past trends and experience with similar projects.	Pre-feasibility (s) Feasibility (s)
16. NEGATIVE IMPACTS				
(a) Natural Resources	<i>Predict any significant reduction in the quality of air, water and soil or loss of biodiversity.</i>	Emphasise threats to the integrity of ecosystems that could affect economic or social sustainability.	Use predictive qualitative models where possible, to avoid vague predictions.	Pre-feasibility (s) Feasibility (s) Design and Engineering (r)
(b) Human Resources	<i>Evaluate the risk of significant deterioration in the health or well-being of the affected people.</i>	Use the results of public consultation to focus the analysis on locally important concerns and issues.	Undertake an economic and social valuation of the predicted environmental impacts.	Pre-feasibility (s) Feasibility (s) Design and Engineering (r)
(c) Relocation and Compensation	<i>Evaluate plans for involuntary relocation and describe measures taken to minimise the number of relocations.</i>	Assess the success of previous relocation programmes and recommend changes in current plans accordingly.	Evaluate the fairness and equity of criteria for determining compensation, and identify required changes.	Pre-feasibility (s) Feasibility (s) Design and Engineering (r)
(d) Cumulative Impacts	<i>Evaluate the incremental contribution to the long-term degradation of local natural and social systems.</i>	Compare the severity of cumulative impacts with those from other previous development activities.	Review past trends and compare current quality indicators to estimated or perceived thresholds.	Pre-feasibility (s) Feasibility (s) Design and Engineering (r)

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**Framework Terms of Reference for environmental assessment of development assistance projects**


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(e) Trans-Boundary Impacts	<i>Evaluate the potential for neighbouring countries to be impacted and the potential effects on the global commons.</i>	Identify the most likely sources of extra-territorial impacts and describe how such impacts will be kept to a minimum.	Focus on any far-field effects of pollution, and impacts on species or ecosystems of global importance.	Pre-feasibility (s) Feasibility (s) Design and Engineering (r)
(f) Impact Significance	<i>Define the meaning of the term "significant" and assess the significance of the expected impacts.</i>	Where possible, determine thresholds that reflect local environmental and socio-economic values.	State the environmental quality standards to be applied in the assessment.	Pre-feasibility (s) Feasibility (s)

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**H. MITIGATION AND MONITORING**


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17. ENVIRONMENT MANAGEMENT PLAN	<i>Provide a detailed plan covering mitigation of predicted impacts, management of residual effects, relocation and compensation schemes, decommissioning, and training programmes.</i>	Allocate roles and responsibilities and show how the Management Plan is expected to influence project final design, operation and eventual decommissioning.	Present mitigation plans in sufficient detail that they can be incorporated into the criteria for project design, operation and shutdown.	Design and Engineering (r) Monitoring and Evaluation (r)
18. ENVIRONMENT MONITORING PLAN	<i>Provide a comprehensive and detailed plan covering the environmental and social variables to be monitored, the location and timing of sampling and the use to be made of monitoring data.</i>	Clearly state the institutions(s) responsible for the monitoring plan and how the resulting information will influence the operation of the project.	Provide sufficient guidance (and training where necessary) on sampling protocols and analytical standards to ensure the generation of reliable data.	Monitoring and Evaluation (r)

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**I. CONCLUSIONS AND RECOMMENDATIONS**


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19. PROJECT DECISIONS	<i>Indicate the extent to which the proposed project conforms with the general principles of sustainable development.</i>	Show how the project has been modified to make it more sustainable and explain the shortcomings that remain.	Compare the proposed project with reasonable alternatives, in terms of benefits and environmental impacts.	Feasibility (s)
20. TECHNICAL MATTERS	<i>Summarise the design and operational changes that are considered critical to improving the environmental acceptability of the project.</i>	Note any legal, policy, procedural or administrative impediments to achieving the required changes to the project.	Note any engineering constraints or risks to achieving the necessary technical changes.	Feasibility (s)
21. NON-TECHNICAL SUMMARY	<i>Summarise, in non-technical terms, the key findings and recommendations of the assessment, including the main economic benefits, significant environmental effects and proposed mitigation measures.</i>	Summarise any changes required to in-place management systems to ensure that the project is designed and operated in accordance with the recommendations of the environmental assessment.	Highlight the technical and procedural aspects of the assessment that pose the greatest risk to the successful completion and operation of the project, and the recommended strategies to circumvent these.	Feasibility (s)

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## Sample Terms of Reference (ToR) for environmental assessment

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### Sample Terms of Reference (ToR) for Environmental Assessment

**Introduction:** state the purpose of the terms of reference.

**Background information:** briefly describe the need for, objectives of and major components of the proposal.

**Objectives:** summarise the scope of the EIA and timing in relation to project preparation, design, and approval.

**EIA requirements:** identify the regulations and guidelines governing the conduct of the EIA and/or specify the content of its report.

**Study area:** outline the time, space and jurisdictional boundaries of the study.

**Scope of work:** identify the tasks to be carried out, information deficiencies to be addressed, studies to be carried out, methodologies etc.

**Task 1. Description of the proposed project:** provide a brief description of the relevant parts of the project, using maps (at appropriate scale) where necessary.

**Task 2. Description of the environment:** assemble, evaluate and present baseline data on the relevant environmental characteristics of the study area. Include information on any changes anticipated before the project commences.

**Task 3. Legislative and regulatory considerations:** describe the pertinent regulations and standards governing environmental quality, health and safety, protection of sensitive areas, protection of endangered species, siting, land use control, etc.

**Task 4. Determination of the potential impacts of the proposed project:** distinguish between significant positive and negative impacts, direct and indirect impacts, and immediate and long-term impacts. Identify impacts that are unavoidable or irreversible. Wherever possible, describe impacts quantitatively, in terms of environmental costs and benefits.

**Task 5. Analysis of alternatives to the proposed project:** describe alternatives that were examined in the course of developing the proposed project and identify other alternatives which would achieve the same objective.

**Task 6. Development of management plan to mitigate negative impacts:** recommend feasible and cost-effective measures to prevent or reduce significant negative impacts to acceptable levels and describe the actions necessary to implement them.

**Task 7. Identification of institutional needs to implement environmental assessment recommendations:** review the authority and capability of institutions at local, provincial/regional, and national levels.

Recommend steps to strengthen or expand them so that the management and monitoring plans in the environmental assessment can be implemented.

### Sample Terms of Reference (ToR) for environmental assessment

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**Task 8. Development of a monitoring plan:** prepare a detailed plan to monitor the implementation of mitigation measures and the impacts of the project during construction and operation.

**Task 9. Public/NGO participation and inter-agency co-ordination:** describe how the arrangements for obtaining the views of local NGOs and affected groups, and in keeping records of meetings and other activities, communications, and comments and their deposition.

**EIA report:** keep it concise and limited to significant environmental issues. The main text should focus on findings, conclusions and recommended actions, supported by summaries of the data collected and citations for any references used.

*Source: adapted from World Bank 1991*