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# **Topic 4**

## **Screening**

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**Introduction**

**Checklist**

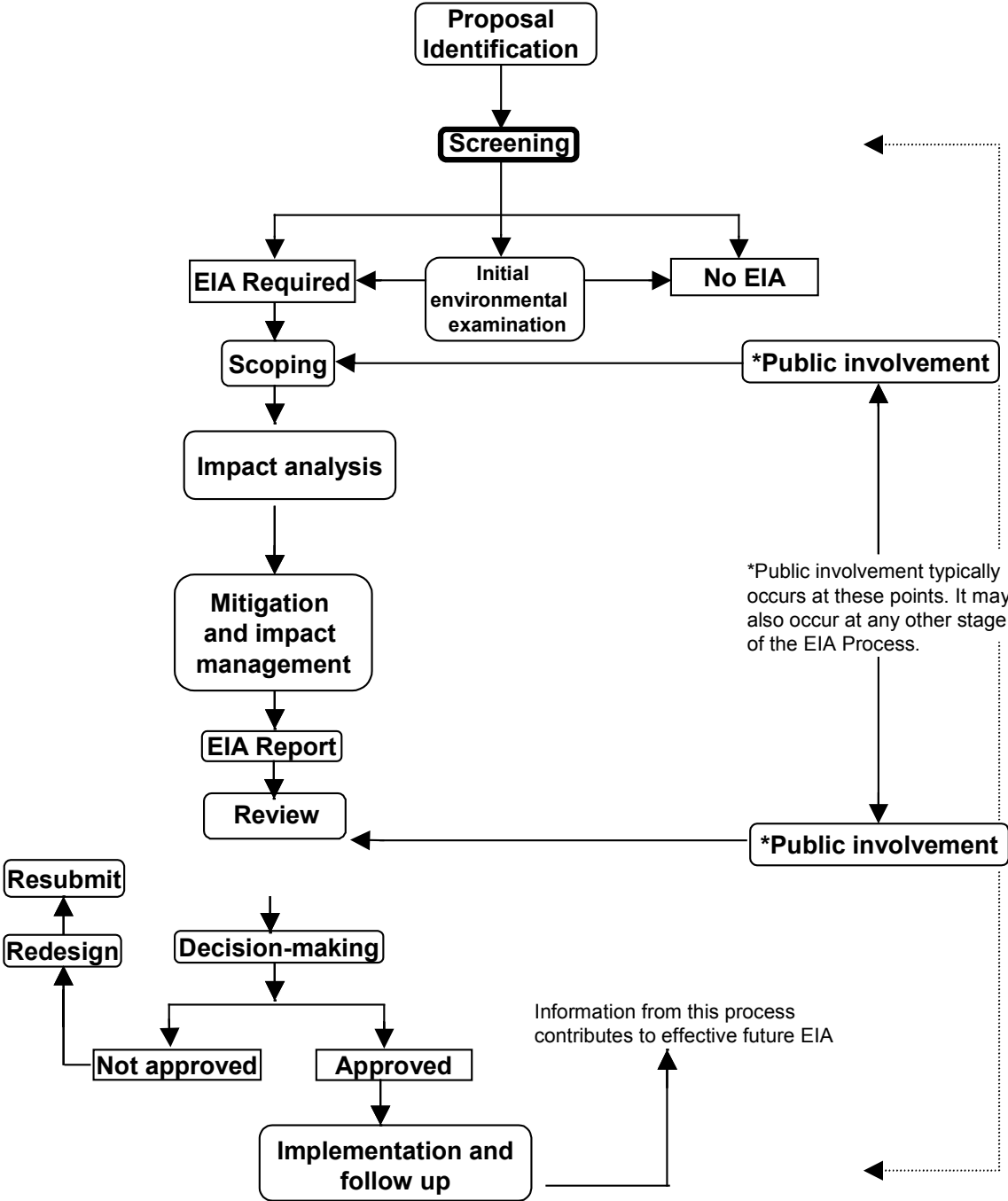
**Session outline**

**Reference list and further reading**

**Training activities**

**Support materials**

# Screening in the EIA process



## Topic 4—Screening

### Objectives

To introduce the concept of screening.

To describe different procedures and methods for the conduct of screening, and to compare their strengths and weaknesses.

To emphasise the importance of 'significance' in screening.

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### Relevance

Screening determines whether or not a proposal requires an EIA and, if so, what level of analysis is necessary. This process brings clarity and certainty to the implementation of EIA, ensuring that it neither entails excessive review nor overlooks proposals that warrant examination.

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### Timing

Two 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.*

Topic 4  
Screening

**Information checklist**

Obtain or develop the following, as appropriate:

- a description of current screening practice (where it exists) and how it fits into the whole EIA process;
- the responsibilities and roles of the various parties in screening;
- legal requirements, lists of included (and excluded) projects, threshold criteria, environmental overviews, guidelines for assessing significance, etc. used during screening;
- examples of the conduct of screening (locally if possible), application of mechanisms, completed reports etc. along with the final screening decision;
- contact list of people, agencies, organisations and environmental information/ data systems able to provide assistance in relation to screening; and
- other resources that may be available such as 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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This topic introduces the different procedures and methods for identifying whether or not an EIA is required for a proposal. It examines their relative strengths and weaknesses, and allows participants to gain initial familiarity with the concept of impact 'significance' and its importance in triggering the right level of EIA review.

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**Introduce the purpose of screening. Outline the characteristics and outcomes of the screening process, noting that full EIA is required only for certain types of major projects. Mention that in some EIA systems there is an overlap between the screening and the scoping stages of the EIA process (see also Topic 5 – Scoping).**

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1

Screening is the first stage of the EIA process. Some type of screening procedure is necessary because of the large number of projects and activities that are potentially subject to EIA. The purpose of screening is to identify the proposals that require an EIA and exclude those that do not. It is intended to ensure that the form or level of any EIA review is commensurate with the importance of the issues raised by a proposal.

The conduct of screening thus involves making a preliminary determination of the expected impact of a proposal on the environment and of its relative significance. A certain level of basic information about the proposal and its location is required for this purpose. The time taken to complete the screening process will depend upon the type of proposal, the environmental setting and the degree of experience or understanding of its potential effects. Most proposals can be screened very quickly (in an hour or less) but some will take longer and a few will require an extended screening or initial assessment.

Similarly, the majority of proposals may have few or no impacts and will be screened out of the EIA process. A smaller number of proposals will require further assessment. Only a limited number of proposals, usually major projects, will warrant a full EIA because they are known or considered to have potentially significant adverse impacts on the environment; for example, on human health and safety, rare or endangered species, protected areas, fragile or valued ecosystems, biological diversity, air and water quality, or the lifestyle and livelihood of local communities.

Topic 4

Screening



2

The screening process can have one of four outcomes:

- no further level of EIA is required;
- a full and comprehensive EIA is required;
- a more limited EIA is required (often called preliminary or initial assessment); or
- further study is necessary to determine the level of EIA required (often called an initial environmental evaluation or examination [IEE]).



3

Screening establishes the basis for scoping, which identifies the key impacts to be studied and establishes terms of reference for an EIA. Many EIA systems have formal screening and scoping procedures. In some cases, however, these terms may be used differently or applied at the discretion of the proponent (as with scoping in the European EIA Directive). Also, on occasion, the screening and scoping stages may overlap, for example, when a further study (or IEE) is undertaken to determine whether or not the potential impacts are significant enough to warrant a full EIA.

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**Discuss the different procedures and methods used to screen proposals, highlighting their advantages and disadvantages. Indicate how they might be combined into a comprehensive approach to screening or extended as part of an initial assessment.**

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The requirements for screening and the procedure to be followed are often defined in the applicable EIA law or regulations. In many cases, the proposals to which EIA applies are listed in an annex. Usually, the proponent is responsible for carrying out screening, although this is done by the competent authority in some EIA systems. Whatever the requirements, screening should occur as early as possible in the development of the proposal so that the proponent and other participants are aware of the EIA obligations. It should be applied systematically and consistently (so that the same decisions would be reached if others conducted the screening process).

The screening procedures employed for this purpose can be classified into two broad, overlapping approaches:

- *prescriptive or standardised approach* – proposals subject to or exempt from EIA are defined or listed in legislation and regulations; and
- *discretionary or customised approach* – proposals are screened on an individual or case-by-case base, using indicative guidance.



4

Specific methods used in screening include:

- legal (or policy) definition of proposals to which EIA does or does not apply;
- inclusion list of projects (with or without thresholds) for which an EIA is automatically required;

- exclusion list of activities which do not require EIA because they are insignificant or are exempt by law (e.g. national security or emergency activities); and
- criteria for case-by-case screening of proposals to identify those requiring an EIA because of their potentially significant environmental effects.

Both prescriptive and discretionary approaches have a place and their specific procedures can be combined into a comprehensive procedure (as shown in Figure 1). Where inclusive project lists are used, the disposition of most proposals will be immediately apparent. However, some proposals will be on the borderline in relation to a listed threshold and for others, the environmental impacts may be unclear or uncertain. In these situations, case-by-case screening should be undertaken, applying any indicative guidelines and criteria established for this purpose. This process gives the proponent or competent authority greater discretion than mandatory lists in determining the requirement for EIA.



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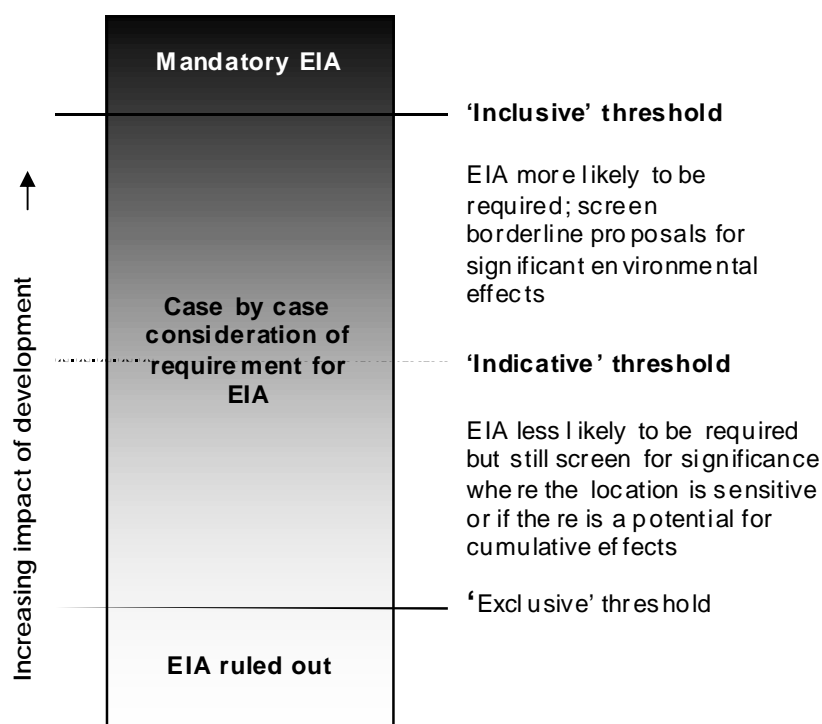


Figure 1: A framework for screening





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In this context, screening is a flexible process and can be extended into preliminary forms of EIA study. These 'extended screening' procedures include:

- initial environmental examination – carried out in cases where the environmental impacts of a proposal are uncertain or unknown (e.g. new technologies or undeveloped areas);
- environmental overview – carried out as a rapid assessment of the environmental issues and impacts of a proposal; and
- class screening – carried out for a family of small projects or repetitive activities, where the environmental effects and means of mitigation are known but there is potential for cumulative impacts (e.g. dredging, road realignment, bank stabilisation).

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**Discuss the use of project lists and thresholds, noting their strengths and weaknesses. Consider if these are locally applicable.**

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Project lists are widely used to screen proposals. These lists are of two types. Most are 'inclusion' lists, which describe the project types and size thresholds that are known or considered to have significant or serious environmental impacts. Usually, listed projects that fall within these predetermined thresholds will be subject automatically to full and comprehensive EIA. Some EIA systems also maintain 'exclusion' lists of activities that are exempt because they are known to have little or no environmental impact.

The inclusion lists used by countries and international organisations differ in content, comprehensiveness, threshold levels and requirements for mandatory application. In certain EIA systems, scale thresholds are specified for each type of listed project for which an EIA is mandatory. Other projects that may require an EIA are screened individually against environmental significance criteria, such as emission levels or proximity to sensitive and protected areas. Internationally, reference is often made to:

- Annexes 1 and 11 of the European EIA Directive, which respectively list projects subject to mandatory EIA and non-mandatory EIA; and
- Annex E of the World Bank Operational Directive on EA, which is illustrative and provides a framework for screening.

Use of these lists is reported by the World Bank to be a reliable aid to the classification of proposals into one of three categories (see Box 1):

- projects requiring a full EIA because of their likely environmental effects (see Box 2);



- projects not requiring a full EIA but warranting a further level of assessment (see Box 3); and
- projects not requiring further environmental analysis (for example health and nutrition, institutional and human resource development and technical assistance).

Listed projects provide a standardised framework for screening proposals. This approach is simple to apply, at least in its most basic form of identifying the type and size of project for which EIA is mandatory or almost certainly required. However, project lists should be used cautiously and with due regard to their weaknesses, especially if they are the sole basis for screening. The automatic application of EIA to proposals may be avoided by staying just below the predetermined size threshold; for example building a major road in 19 km sections when the threshold for inclusion is 20 km. Secondary project lists or other screening procedures should be in place to ensure such proposals are subject to the appropriate level of EIA.

World Bank and international experience indicates that project lists should be used flexibly in screening proposals. Reference should be made to the location and setting of the proposal, as well as its scale. A low-head hydropower dam or small-scale quarry (<100 ha) normally would not merit full EIA (e.g. by reference to the World Bank Annex E lists). However, the proposal may need to be reclassified if it is located in or near sensitive and valued ecosystems, or heritage resources, displaces people who are particularly vulnerable and difficult to resettle or has evident cumulative impacts (e.g. one of a series of quarries or dams). The methods available for this purpose are discussed below.

As necessary, project lists should be revised and updated over time to incorporate increasing experience and to respond to new demands. The reform of project lists and thresholds preferably should take place through a consultative process, involving government agencies, industry and the public. When developing project lists from scratch, care should be taken not to adopt those established elsewhere without adequate review of their suitability. Project lists are drawn up with reference to the developmental and physical characteristics that are particular to a country or jurisdiction, and it is unlikely they will be directly transferable without alteration.

#### **Box 1: Environmental screening – World Bank classification**

- Category A: for projects likely to have significant adverse environmental impacts that are serious (i.e., irreversible, affect vulnerable ethnic minorities, involve involuntary resettlement, or affect cultural heritage sites), diverse, or unprecedented, or that affect an area broader than the sites of facilities subject to physical works. A full EIA is required.

- Category B: for projects likely to have adverse environmental impacts that are less significant than those of Category A projects, meaning that few if any of the impacts are likely to be irreversible, that they are site-specific, and that mitigation measures can be designed more readily than for Category A projects. Normally, a limited EIA will be undertaken to identify suitable mitigation and management measures, and incorporate them into the project.
- Category C: for projects that are likely to have minimal or no adverse environmental impacts. No EIA is required.

*Source: World Bank (1993)*

#### **Box 2: World Bank Category A projects/components**

The projects or components included in this list are likely to have adverse impacts that normally warrant classification in Category A

- dams and reservoirs
- forestry and production projects
- industrial plants (large scale)
- irrigation, drainage, and flood control (large scale)
- land clearance and levelling (large scale)
- mineral development (including oil and gas)
- port and harbour development
- reclamation and new land development
- resettlement and new land development
- river basin development
- thermal and hydropower development
- manufacture, transportation, and use of pesticides
- other hazardous and/or toxic materials

*Source: World Bank (1993)*

#### **Box 3: World Bank Category B projects/components**

The following projects and components may have environmental impacts for which more limited analysis is appropriate.

- agro-industries
- electrical transmission
- aquaculture and drainage (small-scale)
- irrigation and drainage (small-scale)
- renewable energy
- rural electrification

- tourism
- rural water supply and sanitation
- watershed projects (management or rehabilitation)
- rehabilitation, maintenance, and upgrading projects (small-scale)

Source: World Bank (1993)



4-1

An example of a project list for screening can be found in the resource material at the end of this topic (Handout 4-1).

**Discuss the use of indicative guidance and criteria for case-by-case screening, noting any constraints and issues that might need to be addressed. Consider if these are locally applicable.**

Case-by-case screening is carried out when the significance of the potential environmental impact of a proposal is unclear or uncertain. This process typically applies to proposals that fall just below or close to the thresholds established for listed projects. In addition, non-borderline proposals may be subject to screening if they are located in sensitive areas or there is a potential for cumulative effects in combination with other current and foreseeable activities. The framework outlined in Figure 1 contains a sieve of screening applications with a progressively finer mesh for including proposals. It has gained a degree of international acceptance as a standard of good practice.



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The specific criteria for case-by-case screening differ from country to country. Typically, however, they are based on a number of common factors related to the consideration of the significance of environmental impacts. These include the location of proposals, environmental sensitivity and any likely health and social effects on the local population. In this context, reference may be made to the screening criteria listed in the European Directive, which apply to the selection of listed projects for which EIA is not mandatory.



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These criteria may be adapted to wider use in case-by-case screening. A proposal can be tested for significance by taking account of:

- location near to protected or designated areas or within landscapes of special heritage value;
- existing land use(s) and commitments;
- the relative abundance, quality and *regenerative capacity* of natural resources;
- the *absorption capacity* of the natural environment, paying particular attention to wetlands, coastal zones, mountain and forest areas; and
- areas in which the *environmental quality standards laid down in law have been exceeded already*.

Using the emphasised aspects above, consideration can be given to sustainability criteria when carrying out case-by-case screening. However, this approach demands considerable information about the environment, which is unlikely to be available at a relatively early stage in project development. In these circumstances, only a qualified determination of the environmental significance of a proposal may be possible and screening decisions must be open to change if new information indicates the advisability of reclassification. (One means of doing so is to incorporate a 'bump-up' or 'bump-down' provision into the screening procedure.)

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**Discuss the use of extended screening and initial assessment, noting any constraints and issues that may need to be addressed. Consider if this approach is locally applicable.**

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Certain proposals may be subject to an extended screening or initial assessment (also called a preliminary EIA). Such an approach can be used when the requirement for EIA could not be reasonably determined by the application of the screening procedures described previously; for example when a proposal involves use of a new technology or is located in a near-natural or frontier area or involves discharges into a water body that may exceed health or environmental standards. Often, this process, itself, may be sufficient to complete the requirement for EIA established by a particular country. In this case, a screening report should describe the results and identify any mitigation measures or actions that need to be taken.

When undertaking this type of preliminary EIA study, the proponent or competent authority may need to assemble considerable information. A checklist of the types of information that could be relevant for such a study are summarised in Box 4. This is accompanied by a framework of criteria and questions that can help in the conduct of a preliminary EIA (see Annex 1). It is based upon Australian and New Zealand EIA practice and provides a detailed procedure for undertaking an extended screening or initial assessment. As and where necessary, it could be adapted to wider application in conjunction with the methods described below.



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**Box 4: Information that may be required for a preliminary EIA study**

- a description of the proposal
- applicable policies, plans and regulations, including environmental standards and objectives
- the characteristics of the environment, including land use, significant resources, critical ecological functions, pollution and emission levels etc.
- the potential impacts of the proposal and their likely significance
- the degree of public concern and interest about the proposal.

### Initial environmental evaluation or examination (IEE)

In some EIA systems, an IEE is required when the potential environmental impacts of a proposal cannot be established by the application of standard screening procedures. Typically, an IEE is a relatively low-cost analysis that makes use of information already available. It is carried out using EIA procedures and methods, which are scaled to purpose. (Further information on the various steps involved can be found in the topics that follow.)

For example, key issues can be identified by a rapid scoping exercise, based on consultation with local people and agencies. A site or area visit should take place to survey the current situation and obtain 'baseline' information. Simple methods, such as a checklist or matrix, are used in impact identification and often focus on appropriate mitigation measures. Depending on its findings, the IEE report can be used either as a scoping document when a proposal is referred to a full EIA or to support environmentally sound planning and design when a proposal does not require further review.

An IEE is a preliminary EIA study that:

- describes the proposal and the environmental setting;
- considers alternatives to improve the environmental benefits;
- addresses the concerns of the local community;
- identifies the potential environmental effects;
- identifies measures to mitigate adverse impacts; and
- describes, as necessary, environmental monitoring and management plans.

### Environmental Overview

The *Environmental Overview* was developed by UNDP as an in-house tool to integrate environmental considerations into its proposed activities at either the project or strategic level (see Topic 15 – *Future directions*). Strictly speaking, the Environmental Overview is not equivalent to a preliminary EIA study. However, it is based on similar steps, involves key stakeholders and leads toward the same ends. An Environmental Overview can be completed quickly through the interaction of a mix of specialists. It follows a structured sequence of questions, draws primarily on the more important data sources and conforms to strict guidelines on the organisation and length of the final document.

The Environmental Overview is used by UNDP in the stage of formulating proposals. It leads to early identification of the following:

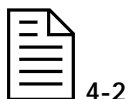
- the environmental and social baseline conditions of the target area;
- the major environmental and socio-economic impacts and opportunities associated with the implementation of the proposal;
- the modifications or alternatives to the draft proposal; and



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- the measures that are necessary to address the environmental impacts and issues.

The purpose of the overview is to incorporate environmental objectives into the design of the proposal, rather than produce a report. Recently, the Environmental Overview has been promoted as an effective tool for programme design, and, specifically, one that is designed to overcome the 'checklist mentality' of EIA. So far, however, the Environmental Overview has been subject to little testing outside of UNDP initiatives. A copy of the table of contents for the Environmental Overview can be found in the resource material at the end of this topic (Handout 4-2) and may be reviewed in light of the above comments.



### Class screening

A class screening may be undertaken for any type of project or activity where there is a reasonably sound knowledge of the environmental effects and the mitigation measures are well established. This approach is used in certain countries, notably Canada (at both federal and provincial levels), and aspects are also evident in the EIA procedure of the World Bank (see Box 3). It is applicable to small-scale projects that are routine and replicable, such as dredging, installation of culverts and realignments to an existing road.

A class screening will document the accumulated information on their likely impacts and standard mitigation practices. This report then serves as a model in the conduct of future screening of other projects of the same type. It does not relieve a proponent or competent authority of its responsibility for screening and, where necessary, of factoring additional information on site-specific and cumulative effects into a class assessment report or preparing a separate document if a project does not meet all of the previously agreed requirements for mitigation. However, in such cases, class assessment can greatly simplify and streamline the screening process.

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**Discuss how screening is initiated and how issues might be 'referred', focusing on the applicable EIA process.**

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Except where exempt by law, all proposed activities should undergo screening to determine whether or not they are subject to EIA. Because of their numbers, the screening procedure needs to be efficient, transparent and robust. In most EIA systems, the proponent or competent authority is responsible for all aspects of the screening process, from initiation to making the final decision on whether or not an EIA is necessary and, if so, at what level. Normally, this process will be undertaken in compliance with the applicable EIA legislation and requirements.

Leading EIA systems have established a number of procedural ‘checks and balances’ for this purpose. They include provision for:

- public notification and record of screening decisions;
- access to relevant information and documentation; and in some cases
- right or avenue of third party appeal for those who consider that the screening procedure has been applied inappropriately.



11

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**Briefly recall the possible outcomes from the screening process, referring to the flow chart of the EIA process.**

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Usually, screening has one of four outcomes:

- no further EIA requirement applies – the proposal will have an insignificant impact;
- a preliminary EIA study is required – the proposal will have an environmental impact that must be addressed but can be mitigated;
- a full or comprehensive EIA is required to complete the screening process – the proposal will have a potentially significant environmental impact; or
- an IEE is required – the potential environmental effects of the proposal are unclear or uncertain.

Certain types of proposals often fall automatically into one of these particular categories. For instance, large dams, power stations and oil refineries are nearly always environmentally significant and require full EIA. By contrast, social development or community health proposals rarely demand further assessment. An extended screening process (or IEE) may be undertaken for proposals for which the potential environmental impact cannot be identified readily.

For proposals that require full or further EIA, the next step in the process is to identify the key issues and impacts that need to be analysed. This process of defining the issues to be considered is called ‘scoping’. It is dealt with next in Topic 5– *Scoping*.

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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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## **Annex 1: Criteria for the determination of the need for, and level of, environmental impact assessment**

### **Character of the receiving environment**

Consider:

- Is it, or is it likely to be, part of the conservation estate or subject to treaty?
- Is it an existing or potential environmentally significant area?
- Is it vulnerable to major natural or induced hazards?
- Is it a special purpose area?
- Is it an area where human communities are vulnerable?
- Does it involve a renewable or a non-renewable resource?
- Is it a degraded area, subject to significant risk levels, or a potentially contaminated site?

*NOTE: Off-site (out of area) as well as on-site (local) characteristics should be considered, where relevant.*

### **Potential impact of proposal**

Consider:

- Will implementation or construction, operation and/or decommissioning of the proposal have the potential to cause significant changes to the receiving environment (on-site or off-site, transboundary, short term or long term)?
- Could implementation of the proposal give rise to health impacts or unsafe conditions?
- Will the proposal significantly divert resources to the detriment of other natural and human communities?

*NOTE: This should include consideration of the magnitude of the impacts, their spatial extent, the duration and the intensity of change, the total life cycle and whether and how the impacts are manageable.*

### **Resilience of natural and human environments to cope with change**

Consider:

- Can the receiving environment absorb the level of impact predicted without suffering irreversible change?
- What are the implications of the proposal for bio-diversity?
- Can land uses at and around the site be sustained?
- Can sustainable uses of the site be achieved beyond the life of the proposal?
- Are contingency or emergency plans proposed or in place to deal with accidental events?



*NOTE: Cumulative as well as individual impacts should be considered in the context of sustainability.*

### **Confidence of prediction of impacts**

Consider:

- What level of knowledge do we have on the resilience of a given significant ecosystem?
- Is the proposal sufficiently detailed and understood to enable the impacts to be established?
- Is the level and nature of change to the natural human environment sufficiently understood to allow the impact of the proposal to be predicted and managed?
- Is it practicable to monitor the predicted effects?
- Are present community values on land use and resource use known or likely to change?

### **Presence of planning, policy framework and other decision-making processes**

Consider:

- Is the proposal consistent with existing policy frameworks?
- Do other approval processes exist to adequately assess and manage proposal impacts?
- What legislation, standard codes or guidelines are available to properly monitor and control operations and the types or quantity of the impacts?

### **Degree of public interest**

Consider:

- Is the proposal controversial or could it lead to controversy or concern in the community?
- Will the amenity, values or lifestyle of the community be adversely affected?
- Will large numbers of people require relocation?
- Will the proposal result in inequities between sectors of the community?

*Based on criteria developed by the Australian and New Zealand Environmental and Conservation Council (ANZECC) 1996*

### Reference list

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

Australian and New Zealand Environmental and Conservation Council (ANZECC) (1996) *Guidelines and Criteria for Determining the Need for and Level of Environmental Impact Assessment in Australia*. Working Group on National Environmental Impact Assessment, ANZECC, Canberra.

Brown A (1998) The Environmental Overview as a Realistic Approach to Strategic Environmental Assessment in Developing Countries in Porter A and Fittipaldi J (eds) *Environmental Methods Review: Retooling Impact Assessment for the New Century*, pp. 127-134. The Press Club, Fargo, USA.

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

OECD (1992) *Guidelines on Environment and Aid: Good Practices for Environmental Impact Assessment of Development Projects*. OECD, Paris.

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World Bank (1993) *Environmental Screening, Environmental Assessment Sourcebook Update No 2*, Environment Department, The World Bank, Washington D.C.

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### Further reading

Bulleid P (1997) Assessing the Need for EIA. In Weston J (ed) *Planning and Environmental Impact Assessment in Practice*, (pp. 26-41). Longman, Harlow, UK.

Canter L (1996) *Environmental Impact Assessment (Second Edition)*. McGraw Hill Publishing Company, New York.

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Donnelly A, Dalal-Clayton B and Hughes R (1998) *A Directory of Impact Assessment Guidelines, (Second Edition)*. International Institute for Environment and Development (IIED). Russell Press, Nottingham.

European Bank for Reconstruction and Development (EBRD) (1992) *Environmental Procedures*. EBRD, London.

Kristoffersen H and Tesli A (eds) (1996) *Environmental Impact Assessment in the Baltic Countries and Poland – Screening and Quality Control*. Nordic Council of Ministers, NORD 12, Copenhagen.

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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

- 4-1 What are the strengths and weaknesses of the screening procedure used in the local EIA process?
  - 4-2 Discuss the relative strengths and weaknesses of the following screening methods: project lists with thresholds; case-by-case screening; initial environmental evaluation (IEE) and other types of preliminary EIA study.
  - 4-3 Consider if a list of projects that must always undergo EIA is a useful approach? How would you go about drawing up or amending such a list and choosing the projects to be included?
  - 4-4 What are the benefits and disadvantages of proponents making screening decisions? Is it necessary to make the reasons for the decisions available to the public?
  - 4-5 What are the benefits and disadvantages of allowing an appeal process for screening decisions?
  - 4-6 If a country's EIA legislation or policy prescribes/designates activities in terms of project type only, what are the advantages and disadvantages of also specifying projects by size (e.g. a reservoir or mine lease area more than a certain number of hectares)?
  - 4-7 How might cumulative effects and/or sustainability criteria be incorporated in screening decision-making?
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### Speaker themes

- 4-1 Invite a speaker who has been involved in the conduct of screening to discuss the strengths and weaknesses of the system used locally, giving examples.
  - 4-2 Arrange for speakers representing different stakeholders in the EIA process (e.g. the screening decision-maker, the proponent, the public) to participate in a panel discussion focused on the strengths and weaknesses of the applicable process of screening and how it could be improved.
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## Group Activity 4-1: Screening

**Title:** Comparison of screening methods

**Aim:** To gain familiarity with the strengths and weaknesses of different screening methods.

**Group size:** Four to six participants

**Duration:** Three hours

### Resources required:

- Three local case studies providing background information used for or relevant to screening the proposals.
- The screening method and any criteria used for these proposals and one or two other sets of criteria (from donors or other countries) that can be used for comparison. (Handout 4-1 can be used).
- The screening decisions on these proposals and, if possible, the reasons for these decisions.

### Description of activity:

Applying the different types of screening method to the three case studies, answer the following questions:

- What differences were evident in the way that the different methods operated?
- What further information would you have liked to have, or other aspects that you would like to have considered, before you had to make the screening decision?
- Which method was the easiest to use?
- Which method do you feel gave the most reliable answer to whether EIA was necessary or not? Why?
- What limitations did each of the screening methods have?
- What could be the repercussions of these limitations?
- Compare and discuss the groups' findings with the actual decision made, where available.
- Suggest modifications that could be made to the local screening process to improve its accuracy, reproducibility, certainty of outcome and accountability.

## Group Activity 4-2: Screening

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**Title:** Screening proposals

**Aim:** To understand how screening is conducted.

**Group size:** Class or small group activity

**Duration:** Three hours

### Resources required

- Five short case studies, one suited to extended screening.
- Background information, with associated maps, for the proposals that could be required to support the screening decisions.

### Description of activity

- Provide the class or groups with the five short case studies and ask them to screen the proposals, giving reasons for their decisions.
- Bring the groups back together after the first hour to discuss progress.
- As a group, develop a list of information which would be required in order to screen projects adequately.

If appropriate, the above activity can include an extended screening process referring to Handout 4-2, and would benefit from being undertaken in conjunction with a site visit to a project.

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1

### 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



2

### Outcomes of screening

- full or comprehensive EIA required
- more limited EIA required
- further study needed to determine EIA requirement
- no further requirement for EIA



3

### 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



4

### Screening methods

- legal/policy definition
- inclusion list of projects (with/without thresholds)
- exclusion list of projects
- criteria for case-by-case screening



5

### Figure 1: A framework for screening



6

### Extended screening methods

- initial environmental evaluation or examination (IEE)
- environmental overview
- class screening



7

**Typical proposals requiring full EIA include:**

- 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)



8

**Location and environmental criteria for case-by-case 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
- existing land uses
- adjacent to protected or designated areas
- within landscapes of special heritage value
- abundance and quality of natural resources



9

**Extended screening – information required by decision-makers**

- description of the proposal
- conditions and characteristics of the environment
- applicable policy planning and regulatory objectives
- identification of potential impacts
- degree of public concern and interest



10

**An initial environmental examination**

- describes the proposal
- considers alternatives
- addresses the concerns of the community
- identifies potential environmental effects
- established mitigation measures
- includes mitigation and follow up if necessary



11

**Flowchart of the process**



## Project Screening Lists

## Screening List A: Projects requiring no environmental analysis

DG VII Sectoral Classification

SOCIAL INFRASTRUCTURE AND SERVICES	
Education	<ul style="list-style-type: none"> <li>• Educational facilities (small-scale)</li> <li>• Teaching facilities and equipment</li> <li>• Scholarships and conferences</li> <li>• Teaching staff and resource personnel</li> <li>• Audio-visual productions</li> <li>• Training</li> </ul>
Health	<ul style="list-style-type: none"> <li>• Medical centres (small-scale)</li> <li>• Medical supplies and equipment</li> <li>• Medical staff and community health workers</li> <li>• Training</li> <li>• Nutrition</li> </ul>
Population	<ul style="list-style-type: none"> <li>• Family planning</li> </ul>
ECONOMIC INFRASTRUCTURE AND SERVICES	<ul style="list-style-type: none"> <li>• Telecommunications</li> <li>• Research</li> </ul>
PRODUCTION SECTOR	<ul style="list-style-type: none"> <li>• Trade (except trade in tropical hardwoods, endangered species, hazardous materials)</li> </ul>
MULTI SECTOR	<ul style="list-style-type: none"> <li>• Micro-projects/programmes (small-scale capital and service)</li> </ul>
FINANCIAL ASSISTANCE	<ul style="list-style-type: none"> <li>• Programme assistance (general and sectoral import programmes)</li> <li>• Non-project/special country support (stabex)</li> </ul>
FOOD AID	<ul style="list-style-type: none"> <li>• Food aid</li> </ul>
EMERGENCY OPERATIONS	<ul style="list-style-type: none"> <li>• Emergency assistance</li> <li>• Assistance to refugee returnees and displaced persons</li> </ul>
AID THROUGH PRIVATE ORGANISATIONS	(REFER TO APPROPRIATE SECTOR)
TECHNICAL ASSISTANCE	<ul style="list-style-type: none"> <li>• Studies, including evaluations</li> <li>• Technical assistance for project implementation</li> <li>• Technical assistance for policy formulation</li> <li>• Works supervision</li> <li>• Institution building at the government/local level</li> </ul>

\* Under certain local circumstances, the Delegation can over-ride this categorisation and place the project in Category B, for instance in cases of substantial amounts of food aid.

Source: Commission of the European Communities (1993)

## Project Screening Lists

**Screening List B: Projects requiring further environmental analysis**

DG VIII Sectoral Classifications

**SOCIAL INFRASTRUCTURE AND SERVICES**

1. Rural and Urban Water Supply and Sanitation	<ul style="list-style-type: none"> <li>• Rural water supply and sanitation</li> <li>• Land drainage (small scale)</li> <li>• Sewerage systems</li> <li>• Installations for the disposal of sewerage sludge</li> </ul>
2. Waste Disposal	<ul style="list-style-type: none"> <li>• Recycling plants</li> <li>• Installations for the disposal of domestic refuse (large scale)</li> </ul>
3. Urban Development	<ul style="list-style-type: none"> <li>• Housing and commercial projects</li> </ul>

**ECONOMIC INFRASTRUCTURE AND SERVICES**

4. Transport	<ul style="list-style-type: none"> <li>• Upgrading/rehabilitation of major rural roads</li> <li>• Airports with basic runway length less than 2,100m</li> </ul>
5. Ports and Harbours	<ul style="list-style-type: none"> <li>• Inland ports which permit the passage of vessels under 1350 tonnes</li> <li>• Upgrading of port or harbour facilities (large scale)</li> </ul>
6. Energy	<ul style="list-style-type: none"> <li>• Thermal power stations and other combustion installations with a heat output of less than 300 megawatts</li> <li>• Electricity transmission lines</li> <li>• Rural electrification</li> <li>• Renewable energy (large scale)</li> <li>• Mini-Hydro</li> </ul>

**PRODUCTION SECTOR**

7. Agriculture	<ul style="list-style-type: none"> <li>• Widespread introduction of new management practices (eg. mechanisation, mixed cropping)</li> <li>• Widespread introduction of new crops</li> <li>• Pest control programmes (large scale)</li> <li>• Widespread introduction of fertilisers</li> <li>• Watershed management and rehabilitation</li> </ul>
8. Irrigation	<ul style="list-style-type: none"> <li>• Surface-water fed irrigation projects covering between 100 and 500 hectares</li> <li>• Ground-water fed irrigation projects covering between 200 and 1000 hectares</li> </ul>
9. Forestry	<ul style="list-style-type: none"> <li>• Protected forest reserves (large-scale)</li> <li>• Agro-forestry (large-scale)</li> <li>• Productive forest reserves (large-scale)</li> </ul>
10. Livestock	<ul style="list-style-type: none"> <li>• Intensive rearing of cattle (&gt;50 heads), pigs (&gt;100 heads), or poultry (&gt;500 heads)</li> </ul>

## Project Screening Lists

## Screening List B: Projects requiring further environmental analysis (cont)

11. Fisheries and Aquaculture	<ul style="list-style-type: none"> <li>• Intensive aquaculture (large-scale)</li> <li>• Extensive aquaculture (exceeding 50ha, or exceeding 10ha if affecting mangroves)</li> <li>• Artisanal fisheries (large-scale)</li> <li>• Introduction of new species</li> <li>• Introduction of new harvesting technology</li> </ul>
12. Mineral Extraction and Processing	<ul style="list-style-type: none"> <li>• Extraction of aggregate minerals such as marble, sand, gravel, shale, salt, phosphates and potash</li> <li>• Extraction of non-metallic or energy producing minerals (small-scale)</li> </ul>
13. Industry	<ul style="list-style-type: none"> <li>• Agro-industries, including manufacture of vegetable and animal oils and fats, manufacture, packing and canning of animal, fish and vegetable products</li> <li>• Manufacture of timber products, pulp, paper and board (large-scale)</li> <li>• Tannery and leather-dressing factories</li> <li>• Production of chemicals, including pesticides (small-scale)</li> <li>• Industries utilising hazardous materials (small-scale)</li> </ul>
14. Tourism	<ul style="list-style-type: none"> <li>• Accommodation (large-scale)</li> <li>• Amenities (large-scale), such as water, energy, sanitation, waste disposal</li> <li>• Facilities (large-scale), such as beach use, marinas, modifications to ports, entertainment complexes</li> <li>• Ecological or cultural-tourism (dependent upon conservation-worthy ecosystems, flora or fauna; or local populations with a particular cultural identity)</li> </ul>
15. Resettlement	<ul style="list-style-type: none"> <li>• All other resettlement schemes</li> </ul>

Source: Commission of the European Communities (1993)

## Project Screening Lists

**Screening List C: Projects requiring a full Environmental Impact Assessment**

DG VIII Sectoral Classifications

**SOCIAL INFRASTRUCTURE AND SERVICES**

1. Rural and Urban Water Supply and Sanitation	<ul style="list-style-type: none"> <li>• Canalisation and flood-relief works (large-scale)</li> <li>• Dams and reservoirs (medium and large-scale)</li> <li>• Wastewater treatment plants (large-scale)</li> <li>• Land drainage (large-scale)</li> </ul>
2. Waste Disposal	<ul style="list-style-type: none"> <li>• Waste disposal installations for the incineration, chemical treatment or land fill of toxic, hazardous and dangerous wastes</li> <li>• Installations for the disposal in industrial wastes</li> </ul>
3. Urban Development	<ul style="list-style-type: none"> <li>• Hospital and educational facilities (large-scale)</li> </ul>

**ECONOMIC INFRASTRUCTURE AND SERVICES**

4. Transport	<ul style="list-style-type: none"> <li>• Major urban roads</li> <li>• New and upgraded motorways/express roads</li> <li>• Rural road programmes</li> <li>• Oil and gas pipelines and installations</li> <li>• Rail infrastructure</li> <li>• Elevated and underground railways and suspended lines used mainly for passenger transport</li> <li>• Inland waterways</li> <li>• Airports with a basic runway length of 2,100m or more</li> </ul>
5. Ports and Harbours	<ul style="list-style-type: none"> <li>• Trading ports</li> <li>• Ports for inland waterways traffic which permit the passage of vessels over 1350 tonnes</li> <li>• Large scale expansions to existing ports and harbours</li> </ul>
6. Energy	<ul style="list-style-type: none"> <li>• Thermal power stations and other combustion installations with a heat output of 300 megawatts or more</li> <li>• Hydroelectric power (large-scale)</li> </ul>

**PRODUCTION SECTOR**

7. Agriculture	<ul style="list-style-type: none"> <li>• Land clearing/conversion to agriculture (large-scale)</li> <li>• Land reclamation (large-scale)</li> </ul>
8. Irrigation	<ul style="list-style-type: none"> <li>• Surface-water fed irrigation projects covering more than 500 hectares</li> <li>• Ground-water fed irrigation projects more than 1000 hectares</li> </ul>
9. Forestry	<ul style="list-style-type: none"> <li>• Plantation afforestation/reforestation (large-scale)</li> </ul>
10. Livestock	<ul style="list-style-type: none"> <li>• Large-scale open range rearing of cattle, horses, sheep etc</li> </ul>

## Project Screening Lists

## Screening List C: Projects requiring a full Environmental Impact Assessment

11. Fisheries and Aquaculture	<ul style="list-style-type: none"> <li>• Industrial Fisheries</li> </ul>
12. Mineral Extraction and Processing	<ul style="list-style-type: none"> <li>• Deep drilling, such as geothermal, oil, and water supplies</li> <li>• Extraction of metallic and energy-producing minerals by open-cast mining</li> <li>• Extraction of coal/lignite by underground or open-cast mining</li> <li>• Surface industrial installations for the extraction of coal, petroleum, natural gas and ores</li> <li>• On-site mineral processing facilities (large-scale)</li> </ul>
13. Industry	<ul style="list-style-type: none"> <li>• Industrial estates</li> <li>• Major industrial facilities including the following: <ul style="list-style-type: none"> <li>- Oil refineries</li> <li>- Gasification or liquefaction plants of 500 tonnes or more of coal or bituminous shale per day</li> <li>- Installations for the production of ferrous and non-ferrous metals, including smelting, refining, drawing, rolling and surface treatment (large-scale)</li> <li>- Installations for the extraction and processing of asbestos and cement products</li> <li>- Treatment and production of chemicals (large-scale), including integrated chemical installations</li> <li>- Manufacture or transport of pesticides or other hazardous and/or toxic materials</li> </ul> </li> </ul>
14. Tourism	<ul style="list-style-type: none"> <li>• Coastal development (large-scale)</li> </ul>
15. Resettlement	<ul style="list-style-type: none"> <li>• Resettlement schemes (large-scale)</li> </ul>

Source: Commission of the European Communities (1993)

## Environmental overview (initial environmental evaluation)

### Operational guidelines

Taken from UNDP, *Handbook and Guidelines for Environmental Management and Sustainable Development* (New York, 1992), part II, pages 30-39. <sup>3</sup>

#### Environmental Management Tools

Four management tools to be used at each step of UNDP operations are discussed in this section.

In addition, environmental documents and related reference materials are now being produced in copious amounts. As many of these materials could be used to prepare Environmental Overviews and Management Strategies, a library-style reference system on the environment could be set up in each field office. That is, environmental information arriving at UNDP field offices could be categorized and collected in one place for staff members to be able to consult and retrieve.

Field offices that already have libraries could set up sections on the environment and encourage Programme Officers to forward all appropriate documents to this facility. Field office environmental focal points may also assist offices in assuring that environmental management processes are completed as outlined here and that environmental information flowing into the office is disseminated to the appropriate staff members, government counterparts and NGOs. Activities of the Sustainable Development Network and the Global Environment Facility should also be linked to the guidelines.

#### Tool 1: Environmental Checklist for UNDP Technical Cooperation

To ensure that proper consideration has been given to the environment, a checklist serves as a reminder to those participating in activity implementation (See Box 1.) These specific questions should be answered to facilitate the process of assessing whether the environmental dimension has been included.

#### Tool 2: Environmental Overviews

An Environmental Overview (EO) is an assessment tool that forms the basis for an Environmental Management Strategy. The aim of this short document is to provide basic information on the present environmental situation of a country or project. It will also include an assessment of how the environment might be altered if the programme or project is implemented. This tool is the simplest instrument which can be used to determine whether a proposed activity is being designed and implemented within an environmentally sound and sustainable approach. The EOs will be used in designing all UNDP activities.

All Environmental Overviews should:

- identify the main environmental opportunities and constraints that the implementation of the programme or project could bring about;
- suggest alternatives to the programme/project design that would take better advantage of potential environmental opportunities and/or mitigate likely environmental disturbances associated with the programme/project; and
- identify areas of uncertainty regarding modifications to the environment, as well as those potential social and economic conflicts that might arise if environmental changes are introduced in the programme/project area.

Whether the overview is prepared for a Country Programme or for specific projects and programmes, it should not be longer than seven pages. Box 2 (Preparation of Environment Overviews for UNDP Country Programmes [EOCs]) and Box 3 (Preparation of Environmental Overviews for UNDP-sponsored Projects and Programmes [EOPs]) contain annotated outlines of what to include in each type of overview. Only Box 3 is included in this reading excerpt.

The responsibility of preparing EOs belongs to those who are proposing a programme or project and, when appropriate, should be included in the terms of reference. This would include UNDP staff, other UN agency professionals, government or NGO counterparts and outside experts.

### Environmental overview (initial environmental evaluation)

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For the Country Programme, the EOC should be prepared at the same time the Advisory Note is being drafted. For a project or programme document, the EOP should be done before or while the Project Formulation Framework (PFF) is being drafted but not finalised. This leaves ample time to make revisions if necessary and to incorporate mitigation measures and other environmental considerations throughout the Note or PFF. Once the EO is prepared, some of the information it contains should be incorporated into appropriate sections of the Advisory Note (eventually the Country Programme) or the actual PFF (for example, justification, objectives and so forth). The EO should also be attached as an annex to the programme/project document so that it can be reviewed by the Project/Programme Activity Committee (PAC) and the Action-Committee (AC).

Generally speaking, EOs are not based on original research, although occasionally independent research might be necessary. EOs should be developed mainly from existing information contained in country environmental profiles such as those prepared by other international organizations, academic institutions, bilateral donors and NGOs (for example, those of the World Bank and Interregional Development Banks, or the national reports prepared for the UN Conference on Environment and Development). New information should be generated only if no other details about the characteristics/functions of the local environment are available. Participatory development techniques that take advantage of grass-roots knowledge will help improve the accuracy of EOs.

An EOP should in principle be prepared for all projects from forestry to education to management training. For projects that lack any environmental factors or potential environmental components, the EOP will be limited to one page of outline subheadings with an explanation in each case as to why it is not applicable. For projects that do not have detailed EOPs, the project document chapter on 'Special Considerations' will explain in brief that no EO was created because of the non-applicability of the topic. Very few projects will fall under this category, however.

UNDP staff should use the information contained in the document as an important input to the evaluation of the proposed programmes and projects. The EOC can influence, for example, the drafting of many sections of the Country Programme.

#### Box 1. Environmental Checklist for UNDP Cooperation

- Has an EOC/EOP been prepared for the programme/project?
- Does the programme/project document include explicit actions to prevent and conserve the environment?
- Have the sources of environmental impact (positive and negative) been properly identified in the programme/project document?
- Does the programme/project document include environmental mitigation measures?
- Have the potential conflicts of interest been properly addressed in the document?

#### Tool 3: Environmental Screening of UNDP Activities Using EOPs

EOPs contain the necessary basic information to allow those who are designing or responsible for the proposed programme/activity to decide whether the activity deserves further environmental consideration. To facilitate this, box 4 provides five main reference points to screen UNDP proposed activities. These criteria are not comprehensive, but mainly serve as a reminder for the environmental reviewer. EOCs will also be annexed to the Country Programme, and this will provide the basis for assessing the environmental performance of the programme or project over time.

After UNDP screens the EOPs, the following choices of action exist:

- Given potential environmental opportunities and/or the absence of negative environmental impacts, write the final document (incorporating the EOP) and submit it to the PAC and, if necessary, the Action Committee.
- Do not pursue the proposal further due to its potential negative impact on the environment.
- Request additional information/clarification regarding the environmental characteristics of the area where the proposed activity is expected to take place; demand elaboration of some aspects of the EOP

### Environmental overview (initial environmental evaluation)

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or expansion of information regarding potential environmental impacts prior to drafting the final document.

- Introduce changes to the design presented in the PFF to eliminate or mitigate potential negative environmental impacts, or to make better use of opportunities.
- Recommend preparing an in-depth Environmental Management Strategy for the project document that would be referred to throughout the implementation of the activity.

If the screening process leads to a choice to provide UNDP support for the programme/project under consideration, the EOP should be annexed to the project document.

#### Tool 4: Environmental Management Strategies

An Environmental Management Strategy (EMS) is a detailed action oriented plan prepared for UNDP projects. Environmental Overviews answer the question 'what' is happening or might happen to the environment with a proposed action. Environmental Management Strategies answer the questions:

- 'how' (to improve the environment or mitigate its disturbance),
- 'when' (at what time, through the life of a project, this will be done),
- 'who' (will be accountable for implementing and monitoring environmental activities),
- 'how long' (before the results will be seen), and
- 'what is required' (in terms of experts, information, institutional and financial support) for integrating environmentally sound and sustainable development principles within a proposed development activity.

#### Box 2 Preparation of Environmental Overview of Programme (Project) and Management Strategy (EOP/MS) Annotated Outline for Tool 2 and Tool 4

Although the text of this EOP/MS refers to projects, it can also be used for programmes. This outline contains a 'menu' of possible topics that might assist staff members to develop EOPs. Thus the sections included here should be completed only when applicable (see also Annex III for a sample EOP and MS). Information can be presented sectorally rather than geographically if necessary. Linkages between sections should be identified

##### 1 Brief Description of the EOP/MS Environment of the Area of the Project (1 page maximum)

In general, this section is intended to provide all those who are participating in the development of a UNDP Project with basic general information on the physical characteristics of the environment in the area. The idea is to highlight any important aspects of the natural environment that might be a determinant in the design, appraisal, extension, approval and assessment of a proposed UNDP regional, national or local project.

##### Land and water ecosystems

Describes those types of land and water ecosystems that characterize the project area (such as plains, valleys, mountain ecosystems, rivers, lakes) and whether any of these are known to represent untapped environmental opportunities or areas of particular environmental concern. Includes information on climate if appropriate, such as when the project relates to specific types of agricultural production. In urban areas, describes briefly the relevant geographical features.

##### Living resources

Describes (1) the biological species (fauna and flora) in the project area that represent particular concerns and/or opportunities for the environment (for example, the unexploited potential of certain resources such as medicines that could be obtained from tropical forest species), (2) the socio-cultural context in the project area (population size, ethnicity, poverty and gender indicators etc.).

##### 2 Main Environmental Issues in the Project Area (1 page maximum)

This section covers the three environmental issues that are most important in the area where the project will be implemented—whether, for example, the area is prone to flooding, there is an ongoing process of desertification, or the sustainable fish catch potential is smaller than present exploitation. Topics to



## Environmental overview (initial environmental evaluation)

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consider might include quality of life of the local population, natural hazards, fragile ecosystems, role of children and women and over-crowding. Consultations with local population groups will improve the accuracy of this section.

### 3 Economics and the Environment in the Project Area (1 page maximum)

This section generally discusses whether the prevailing economic situation in the project area will affect the environment. Lists any prevailing national or local economic policies and regulations in the project area that affect the quality of the environment. Any enforcement mechanisms that prevail in the project area to protect the local environment should also be included. General statements about the population's socio-economic situation may be added if not listed under 1 above.

### 4 Environmental Management in the Project Area (1 page maximum)

This section should describe the capacity of the people and institutions working in the project area to cope with their environmental problems, achieve appropriate environmental management and promote sustainable development.

#### Legal and regulatory

Describes whether there are explicit environmental policies and regulations in the project area and, if so, whether they have the enforcement mechanisms and appropriate technical and financial support to be effective.

#### Major environmental actors

Includes a brief description of the main environmental actors in the project area (government authorities, international organizations, private sector, NGOs, individuals) and their objectives and strategies. Identifies possible conflicts among the actors if the proposed project is implemented. Consider whether women play an active role in all these groups and are able to make the necessary contributions, explain their role.

#### Technical and managerial capacity to deal with environmental issues

Describes generally the existing educational, technical and managerial capacity in the project area (within the public, private, NGO and academic sectors) to deal with the environmental issues relevant to the project. Special emphasis should be given to the presence and activities of grass-roots organizations working on environmental protection. The strength and resources of environmental institutions in the project area should be briefly assessed.

### 5 Major Natural and Socio-Economic Impacts and Opportunities Associated with the Project Implementation (1 page maximum)

Both these sections should incorporate the views of the affected population groups; participatory development techniques should therefore be used whenever possible.

#### Potential impacts on the natural environment

Identifies the potential impacts, both positive and negative, that the implementation of the project may have upon the natural environment. Identifies the three most important environmental impacts that the implementation of the project might bring about, and describes how the project will address them. If the project is on agroforestry, for example, indicates whether soil conservation, watershed management and appropriate selection of pesticides and fertilizers have been envisaged.

#### Potential socio-economic impacts

Lists the three most important potential benefits and costs to the socio-economic impacts environment that may result from the implementation of the project.

### 6 Alternatives for Project Design (1/2 page maximum)

This section will discuss the possibility of altering the project design (technology, project objectives and methodology of implementation) to take better advantage of the opportunities offered by the environment in the project area, and to mitigate and eliminate the environmental disadvantages that the project might create.

## Environmental overview (initial environmental evaluation)

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### 7 Identification of Environmental Objectives of the Proposed Activity (1/2 page)

The EOP/MS should state clearly and succinctly the environmental objectives of the alternative. These must conform with the broader development objectives of the country and therefore might go beyond the particular activity's goals. If a proposed activity does not explicitly indicate any environmental objectives, UNDP staff should request that such objectives be identified.

For example, a project on animal-husbandry might identify production targets but not explicitly include environmental objectives. If the proposed activity will introduce new technologies or exotic animal and plant varieties, relocate people or introduce new chemical products, the local environment will be affected. The strategy, in this case, will help identify and clearly design the environmental objectives of such an animal-husbandry project. Environmental objectives could include soil protection, plant conservation and integrated agricultural development.

### 8 Identification of Conflicts of Interest

Some of the objectives pursued by different environmental actors might conflict. For example, the interests of companies that commercialize chemical fertilizers will conflict with activities aiming to promote organic fertilization. The EOP/MS must identify such conflicts of interest and devise possible alternatives to avoid them. In the previous example, an incentive might be proposed for the commercial chemical enterprise to sell other fertilizers (including organic) that will promote soil fertility without damaging the environment.

### 9 Formulation of an Operational Strategy

The most important action-oriented part of the EOP/MS is the formulation of an operational strategy that will allow the achievement of the environmental objectives and goals proposed by the EOP/MS. The strategy must be formulated by the staff proposing, designing or evaluating the activity in consultation with project participants.

#### Specific environmental targets to be achieved

Identifies specific environmental targets in addition to the main environmental policy objectives identified in Section 2. If the proposed activity entails manufacturing processes (such as tanneries or food processing) which generate waste, for example, specific environmental targets would be set such as reducing all waste emissions by 15% over a period of three years and installing interim measures.

#### Participants in environmental management

Identifies the objectives and strategies of the major actors related to the environment in the area where the proposed activity will take place.

#### Plan of activities and timetable

Identifies a number of activities that will lead to the implementation of the strategy. A timetable must also be formulated indicating when such activities are expected to occur, and who will be responsible for them. As the EOP/MS will eventually become part of either the programme or project document, the proposed environmental activities and timetable should be compatible with the overall activities and timetable of the Programme or Project. Relevant national and local activities and timetables should also be considered.

#### Environmental information

Provides reliable and accurate environmental information as the basis for sustainable decision making, while acknowledging that accurate environmental information is difficult to obtain, especially in developing countries. The EOP/MS might include efforts to obtain the most accurate environmental information relevant to the proposed activity or to initiate work that will generate the necessary information over an identified period.

#### Supporting needs

Identifies the specific needs required for the successful implementation of the strategy. The needs to be identified include:

- Education and training

### Environmental overview (initial environmental evaluation)

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- Technical and managerial skills
- Access to environmental data banks
- Institutional support
- Financial aspect

The development and implementation of the EOP/MS requires technical and financial resources. Technical assistance might be needed from UNDP in order to develop the strategy and identify the resources required to carry it out.

#### Assigning implementation responsibilities

States clearly who will be accountable for implementing each one of the activities proposed within the strategy.

#### Decision making

Analyzes the environmental chain of command and responsibilities in the area where an activity is being considered. This analysis should not be restricted to the chain of command in the environmental field (ministry of the environment, forestry sector) but should include the other sectors of the economy that are intimately related to the environment such as industry, trade, health, and so on. The objective is to identify to whom suggestions and recommendations—indeed, the entire EOP/MS—would be addressed. It should also include what would be the most efficient way to influence the decision-making process to protect and enhance the environment.

### 10 Monitoring the EOP/MS

Every UNDP-sponsored activity is monitored regularly to ensure that its stated objectives are being achieved in the time framework envisaged. As the EOP/MS will probably be incorporated into the programme or project document that describes the proposed activity, it should be monitored according to the procedures presented. Constant, cautious monitoring on an as frequent a basis as possible, using specific success indicators for the points raised in the strategy, will help guarantee that the objectives are achieved.

The main difference between an EO and an EMS is that the latter is an ongoing effort demanding close UNDP monitoring throughout the activity while the former is a more static undertaking completed during project formulation. The EMS should be prepared by those proposing the implementation of a project: mainly government officials, NGOs, academic institutions and UN agencies responsible for implementation. Terms of reference will need to refer to the EMS preparation.

The EMS, as part of the EOP/MS, steps 7 to 10, will be prepared according to the specifications provided in Box 3, using participatory development techniques to the greatest extent possible. The length of an EMS can vary greatly, so guidelines on the length of each section are not included. UNDP staff are responsible for ensuring that the EMS is prepared according to these guidelines. It is recommended that the proposed project executer undertake the technical coordinating responsibilities, using, as necessary, appropriate UN agencies and/or other affiliated agencies or NGOs.

The ideas expressed in the EMS eventually need to be incorporated into the objectives, activities, inputs, work plan and so on of the project or programme document. Special references should also be made to the EMS and, if necessary, a specific section summarizing the EMS should be added. The EMS should also be attached as an annex to these documents to assist in monitoring the activities over time.

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**Environmental overview (initial environmental evaluation)**


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**BOX 3 Criteria for Screening UNDP EOCs and EOPs Tool 3**

It is recommended that the programmes/projects that fall within any of the following categories be subject to further environmental consideration:

**Environmentally Sensitive Areas or Activities**

- Activities leading to encroachments on tropical rain forests, wetlands, mangrove forests, coral reefs, coastal zones or other vulnerable areas
- Activities changing natural vegetation and/or the habitats of wildlife species, or in areas inhabited by endangered species
- Activities in legally declared protected areas
- Ecologically fragile areas (including those identified as such by NGOs)
- Areas subject to desertification, arid and semi-arid zones, drylands
- Ecotourism activities
- Areas of unique conservation, historical, cultural, archaeological or aesthetic interest
- Areas of particular social significance (habitats for nomadic people or indigenous populations)
- Areas where pre-established pollution limits have been exceeded or where activities would lead to air, water, soil, radioactive or noise pollution

**Livestock, Farming and Fishing Practices**

- Sustainable agriculture
- Activities leading to soil erosion or in soil-conservation areas
- Integrated pest control or pesticide use/management
- Agroforestry
- Afforestation
- Activities leading to increased grazing
- Introduction or modifications of new crops or livestock
- Introduction of new species where there is limited knowledge of the ecological functions of the local ecosystem
- Biotechnology
- Activities with the possibility of exceeding carrying capacity (eg. catching larger quantities of fish than can be replaced by natural rate of growth)
- Controlled breeding and exploitation of fish or shellfish carried out in marine or inland waters or in artificial ponds

**Activities Dealing with Water Resources**

- Water management
- Irrigation and flood control
- Hydroelectric
- Ground water
- Management of inland wetland ecosystems
- Health and sanitation

**Infrastructure and Industrial Strengthening**

- Large infrastructure and urbanization activities (eg. port development, airports and railway systems)
- Energy generation
- Mining (land and water)
- Activities leading to conflicts over use of resources (eg. port development and tourism)
- All industrial development
- Activities causing emissions to soil, water and air and/or that may endanger the environment

**Environmental overview (initial environmental evaluation)**

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- Activities demanding considerable increases in consumption of raw materials (water, land, fossil fuels)
- Activities creating major changes in landscape
- Activities creating risks of accidents that could have serious consequences for local people or the natural environment
- Occupational safety and training
- Activities that introduce immigrant labour and change local social fabric

**Urbanisation, Land Development and Waste Management**

- Human settlements (housing, office, commercial buildings)
- Land-use planning or road building
- Activities leading to accumulation of waste and creation of unwanted disposal sites
- Production, transport or storage of hazardous wastes.
- UNDP Environmental Overview
- ADB Checklist of Environmental Parameters for Major Dam/:Reservoir/Hydropower Projects