"Capacity Building and Strengthening Institutional Arrangement"

Workshop: "Environmental Impact Assessment (EIA) (for Assessors)"

Environmental Impact Report's main aspects

Methods of Environmental Impact identification and Prediction in terms of appropriate tools

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WHAT IS EIA ?

Environmental assessment is a procedure that ensures that the environmental implications of decisions are taken into account before the decisions are made.

The process involves an analysis of the likely effects on the environment, recording those effects in a report, undertaking a public consultation exercise on the report, taking into account the comments and the report when making the final decision and informing the public about that decision afterwards.

In principle, environmental assessment can be undertaken for individual projects such as a dam, motorway, airport or factory ('Environmental Impact Assessment') or for plans, programmes and policies ('Strategic Environmental Assessment').

Main aspects of EIA

Environmental Impact Assessment is a tool used for decision making regarding projects, developments and programmes such as incinerators, airport runways.

EIA is intended to identify the Environmental, Social and Economic impacts of a proposed development *prior* to decision making.

This means that it is easy to identify;

- The most environmentaly suitable option at an early stage.
- The Best Practicable Environmental Option.
- Alternative processes.

Article 3 of UE Directive

The environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case and in accordance with Articles 4 to 11, the direct and indirect effects of a project on the following factors:

- human beings, fauna and flora;
- soil, water, air, climate and the landscape;
- material assets and the cultural heritage;
- the interaction between the factors mentioned in the first, second and third indents.

The Environmental Assessment is carried out by the **Developer** although the task is often carried out by Environmental Consultants.

Environmental Assessment is carried out in order to produce an **Environmental Statement**.

The Environmental Statement must include:

A description of the project: location, design, scale, size etc.

Description of significant effects.

Mitigating Measures

A Non-Technical summary.

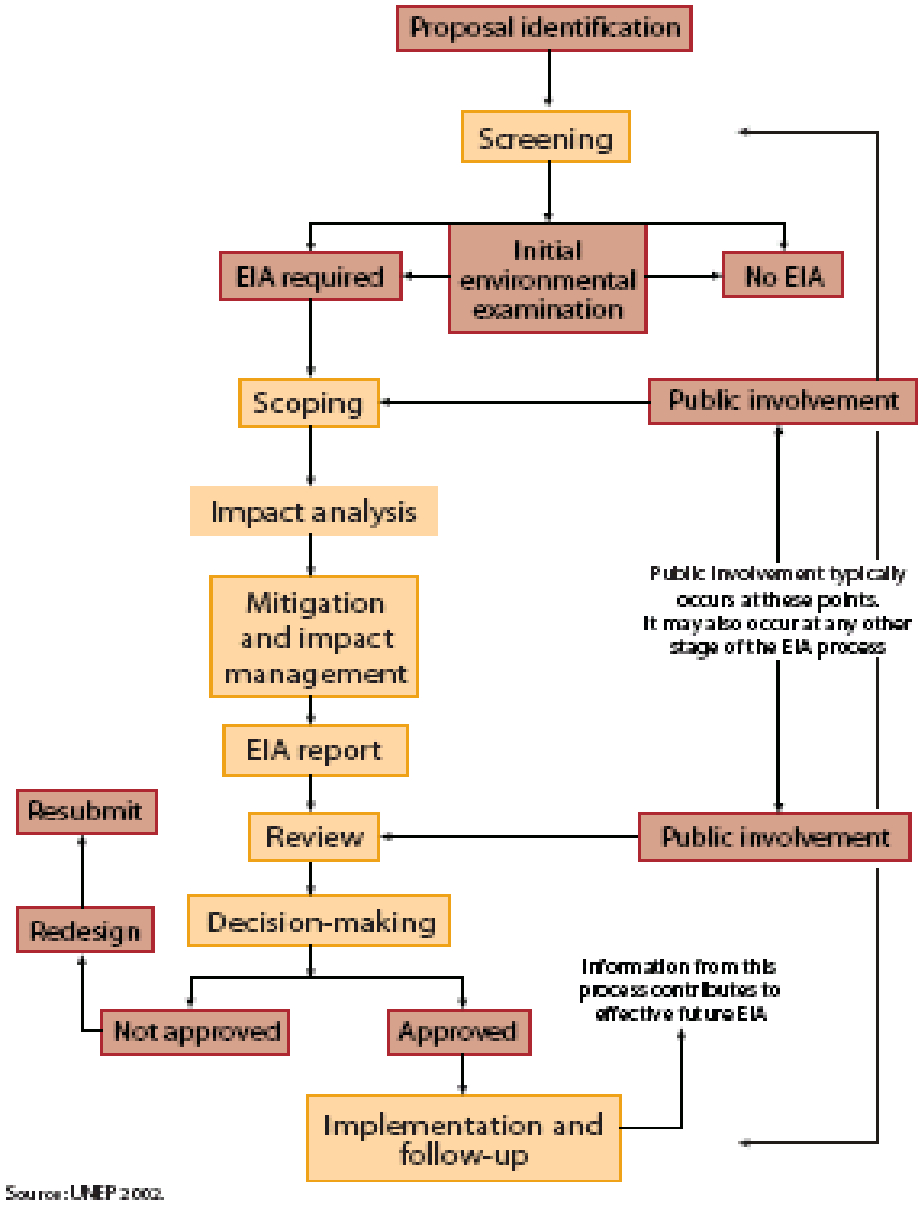
There are two steps in EIA.

The two stages are

•Preliminary Assessment: Carried out in the early stages of planning

•Detailed Assessment: Carried out during project planning until the project plan is completed and are reported formally as an ***Environmental Statement.***

There are five stages in the Environmental Assessment process



(1) UNEP Environmental Impact Assessment Training Resource Manual, Second Edition Published June 2002 by UNEP ISBN: 92 807 2230 1

EIA 'best practice' (1)

Environmental Impact Assessment should be:

Purposive – the process should inform decision-making and result in appropriate levels of environmental protection and community well-being.

Rigorous – the process should apply 'best practicable' science, employing methodologies and techniques appropriate to address the problems being investigated.

Practical – the process should result in information and outputs which assist with problem solving and are acceptable to and able to be implemented by proponents.

Cost-effective – the process should achieve the objectives of EIA within the limits of available information, time, resources and methodology.

Efficient – the process should impose the minimum cost burdens in terms of time and finance on proponents and participants consistent with meeting accepted requirements and objectives of EIA.

EIA 'best practice' (2)

Focused – the process should concentrate on significant environmental effects and key issues; i.e., the matters that need to be taken into account in making decisions.

Adaptive – the process should be adjusted to the realities, issues and circumstances of the proposals under review without compromising the integrity of the process, and be iterative, incorporating lessons learned throughout the proposal's life cycle.

Participative – the process should provide appropriate opportunities to inform and involve the interested and affected publics, and their inputs and concerns should be addressed explicitly in the documentation and decision-making.

Interdisciplinary – the process should ensure that the appropriate techniques and experts in the relevant biophysical and socioeconomic disciplines are employed, including use of traditional knowledge as relevant.

EIA 'best practice' (3)

- **Credible –** the process should be carried out with professionalism, rigor, fairness, objectivity, impartiality and balance, and be subject to independent checks and verification.
- **Integrated –** the process should address the interrelationships of social, economic and biophysical aspects.
- **Transparent –** the process should have clear, easily understood requirements for EIA content; ensure public access to information; identify the factors that are to be taken into account in decision making; and acknowledge limitations and difficulties.
- **Systematic –** the process should result in full consideration of all relevant information on the affected environment, of proposed alternatives and their impacts, and of the measures necessary to monitor and investigate residual effects.

The EIA process should provide for (1):

Screening – to determine whether or not a proposal should be subject to EIA and, if so, at what level of detail.

Scoping – to identify the issues and impacts that are likely to be important and to establish terms of reference for EIA.

Examination of alternatives – to establish the preferred or most environmentally sound option for achieving the objectives of a proposal

Impact analysis – to identify and predict the likely environmental, social and other related effects of the proposal.

Mitigation and impact management – to establish the measures that are necessary to avoid, minimise or offset predicted adverse impacts and, where appropriate, to incorporate these into an environmental management plan or system.

The EIA process should provide for (2):

Evaluation of significance – to determine the importance or acceptability of residual impacts that cannot be mitigated.

Preparation of environmental impact statement (EIS) or report – to document the impacts of the proposal, the significance of effects, and the concerns of the interested public and the communities affected by the proposal.

Review of the EIS – to determine whether the report meets its terms of reference, provides a satisfactory assessment of the proposal(s) and contains the information required for decision-making.

Decision-making – to approve or reject the proposal and to establish the terms and conditions for its implementation.

Follow up – to ensure compliance with the terms and conditions of approval; to monitor the impacts of development and the effectiveness of mitigation measures; and, where required, to undertake environmental audit and process evaluation to strengthen future EIA applications and mitigation measures and to optimise environmental management.

EIA operating principles of good practice and performance

EIA should be applied:

- to all proposals likely to cause potentially significant adverse impacts or add to actual or potentially foreseeable cumulative effects;
- so that the scope of review is consistent with the size of the proposal and commensurate with the likely issues and impacts;
- to provide timely and appropriate opportunities for public and stakeholder involvement, with particular attention given to indigenous peoples and other vulnerable minorities whose cultural traditions and way of life may be at risk; and
- in accordance with the legislation, procedure and guidance in force and with reference to international standards of EIA good practice.

EIA should be undertaken

throughout the project cycle, beginning as early as possible in the pre-feasibility stage;

- with explicit reference to the requirements for decision-making and project approval and authorization consistent with the application of ‘best practicable’ science and mitigation techniques;

- in accordance with proposal-specific terms of reference, which should include clearly defined tasks, responsibilities, requirements for information and agreed timelines for their completion; and

- to gain the inputs and views of all those affected by or interested in the proposal and/or its environmental impacts.

EIA should address, as necessary and appropriate:

- all relevant environmental impacts, including land use, social, cultural, economic, health and safety effects;
- cumulative effects and area-wide, ecosystem-level and global changes that may occur as a result of the interaction of the proposal with other past, current or foreseeable activities;
- alternatives to the proposal, including design, location, demand and activity alternatives;
- mitigation measures for each of the main impacts identified; and
- sustainability considerations, including the effects of depletion of non-renewable resources, of exceeding the regenerative and assimilative capacity of renewable resources and of reduction of biological diversity, taking account of relevant international agreements and commitments.

EIA should result in:

- systematic identification of the views and inputs of those consulted, including the balance of opinion on major issues and areas of agreement and disagreement;
- comparison of the impacts of the main alternatives considered with an environmental justification for the preferred option;
- best estimate prediction and evaluation of the potentially significant residual effects that cannot be mitigated;
- feasible, cost-effective measures to mitigate the main impacts identified (often called an environmental management plan);
- preparation of an EIA report that presents this information in form that is clear, understandable and relevant for decision-making, noting any important qualifications for the predictions made and mitigation measures proposed; and
- resolution of problems and conflicts during the EIA process to the extent this is possible

EIA should provide the basis for:

- informed decision-making and project approvals, in which the terms and conditions are clearly specified and implemented;
- design of environmentally sound and acceptable projects that meet health and environmental standards and resource management objectives;
- appropriate follow-up, including monitoring, management and auditing, to check for unforeseen impacts or mitigation measures that do not work as intended; and
- future improvements in EIA process and practice, drawing on the information from follow up activities.

Key Elements of EIA

1 **Screening: decide whether an EIA is required based on information collected;**

2 **Scoping:** identify key issues and concerns of interested parties;

3 **Identifying and evaluating project alternatives:** list alternative sites and techniques and the impacts of each;

4 **Mitigating measures** dealing with uncertainty: review the proposed actions to prevent or minimise the potential adverse effects of the project;

5 **Issuing environmental statements**: report the findings of the EIA.

6- **Pubblic participation**

Screening is a process to determine whether a proposed project requires a fully-fledged EIA, and has the following three objectives:

(a) Singling-out proposed projects with potentially significant adverse environmental impacts, or projects whose impacts are not known, in order to ensure that projects are not licensed without adequate consideration or mitigation of negative environmental effects;

(b) Cutting down the time and costs of EIA by requiring fully-fledged EIAs only of projects with significant environmental impact;

(c) Rejecting a proposed project at an early stage of development if Government authorities consider its potential environmental impact to be too severe to mitigate.

Screening

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.

Screening

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.

Screening

This is used *to decide whether an Environmental Assessment is required*.

Generally, we are two lists:

List 1 - Environmental Assessments are required in **every case**.

Refered to project for public and private projects which are likely to have significant effects on the environment

List 2 - Environmental Assessments are required **if the project** is likely to give rise to *significant* environmental effects by virtue of factors of their nature, size or location.

Screening is a comprehensive and clear method of decision making. It is practical, quick and easy to use.

Screening approaches

Two main approaches can be used to screen proposed projects:

(a) Screening based on project delineation, which is based on project type and may be based on application of one of the following methods:

(i) General assessment of the proposed activity, in terms of key features of the local environment or the project itself (such as land area, total cost of the project, number of employees);

(ii) Sensitive area criteria to evaluate the capacity of the chosen area to accommodate the proposed activity without adverse environmental impacts;

(iii) Positive and negative lists of activities that are exempted from EIA, or require EIA, respectively. These lists are drawn up according to various criteria, such as those mentioned above.

(b) Screening based on preliminary study, which starts by identifying possible effects of the proposed project and evaluating the significance of those effects, in order to reach a decision on the need for an EIA. Two main techniques could be used:

(i) The matrix technique uses a matrix with the main parameters describing the project along one axis, and the environmental parameters along the other. The interaction of each pair of parameters is examined for its socioeconomic implications and possible adverse environmental impact. If certain areas of potential adverse impacts are discovered, a second level matrix is constructed for these areas. At the end, if no adverse impacts are detected, or if they exist but could be resolved by mitigation measures, there will be no need to proceed to a detailed EIA;

(ii) Initial environmental evaluation technique: if for some reason none of the above methods can be used for screening (a lack of environmental data needed for screening, or hazy evidence to support the likelihood of impacts), then it is advisable to undertake a short and focused IEE. It could be regarded as the first part of a full EIA. In this case a form is filled in to check on the likely environmental impacts and their significance. This may involve the use of matrices, checklists, or other methods favoured by the assessors.

The screening methods mentioned above are not mutually exclusive.

Assessing the significance of impacts

Two groups of environmental impacts can be distinguished on the basis of how easy it is to determine whether an impact is significant:

(a) Impacts for which there are standard criteria, codes, regulations or objectives.

(b) Impacts that should be assessed on the basis of qualitative judgement based on:

(i) Opinions of qualified decision makers in municipalities, or ministerial departments;

(ii) Opinions of specialists (environmentalists, ecologists, hydrologists, geographers, agronomists sociologists, urban planners) at the LA, universities, research institutions, or companies (national or multinational);

(iii) Past experience, national or international, of similar (well-documented) projects;

(iv) Surveys of public opinion;

(v) Compatibility of the proposed project with the Government's development policy in general.

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.

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.

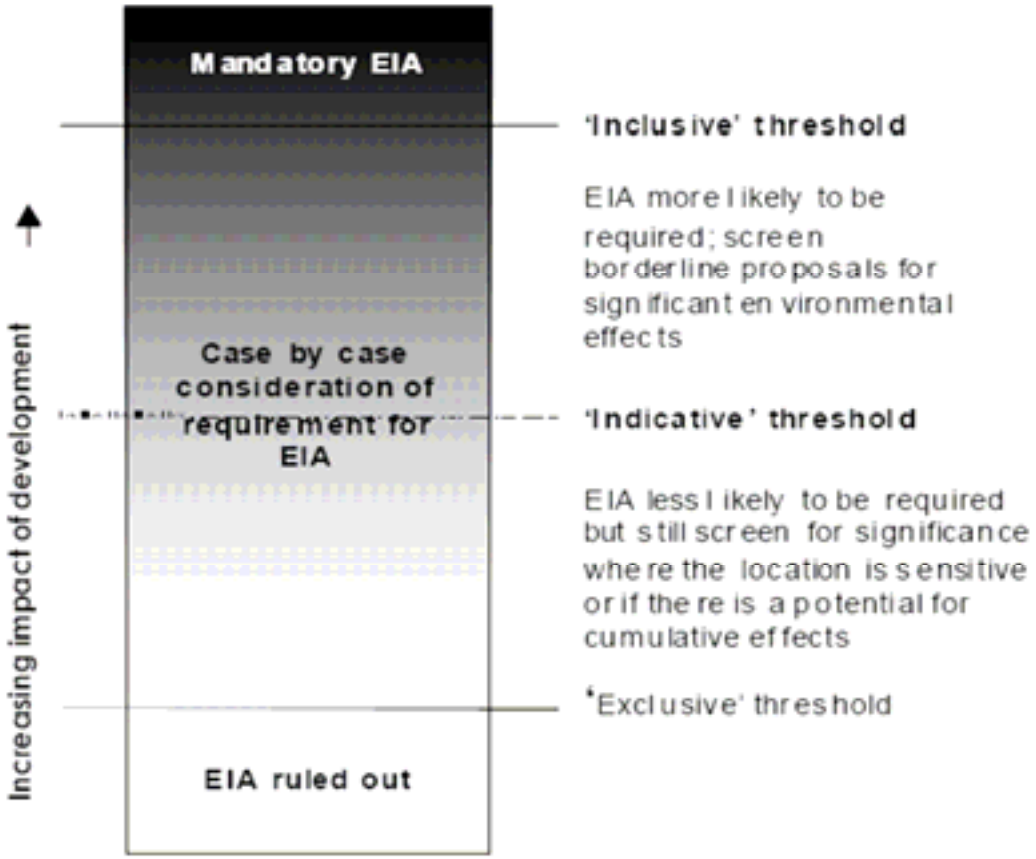


Figure 1: A framework for screening

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*.

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 that 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 (1arge 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)

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).

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.

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.

Checklist of Information Needed for Screening (Guide lines UE)

Information for Screening and Scoping

1. Contact Details of the Developer

· Name of the company.

· Main postal address, telephone, fax and e-mail details for the company.

· Name of the main contact person and direct postal address, telephone, fax and e-mail details.

2. Characteristics of the Project (1)

· Brief description of the proposed project.

· Reasons for proposing the project.

· A plan showing the boundary of the development including any land required temporarily duringconstruction.

· The physical form of the development (layout, buildings, other structures, construction materials, etc).

· Description of the main processes including size, capacity, throughput, input and output.

· Any new access arrangements or changes to existing road layout.

· A work programme for construction, operation and commissioning phases, and restoration and after-usewhere appropriate.

2. Characteristics of the Project (1)

Construction methods.

- Resources used in construction and operation (materials, water, energy, etc.)
- The relationship with other existing/planned projects.
- Information about alternatives being considered?
- Information about mitigating measures being considered.
- Other activities which may be required as a consequence of the project (*eg* new roads, extraction ofaggregate, provision of new water supply, generation or transmission of power, increased housing andsewage disposal).
- Details of any other permits required for the project

3. Location of the Project

· Maps and photographs showing the location of the project relative to surrounding physical, natural and man-made features.

· Existing land-uses on and adjacent to the site and any future planned land uses.

· Zoning or land-use policies.

· Protected areas or features.

· Sensitive areas.

· Details of any alternative locations which have been considered.

4. Characteristics of the Potential Impact (1)

A brief description of the likely impacts of the project considering the following factors:

· Impacts on people, human health, fauna and flora, soils, land use, material assets, water quality andhydrology, air quality, climate, noise and vibration, the landscape and visual environment, historic and

cultural heritage resources, and the interactions between them.

· Nature of the impacts (*i.e.* direct, indirect, secondary, cumulative, short, medium and long-term, permanentand temporary, positive and negative).

4. Characteristics of the Potential Impact (2)

- Extent of the impact (geographical area, size of the affected population/habitat/species).
- Magnitude and complexity of the impact.
- Probability of the impact.
- Duration, frequency and reversibility of the impact.
- Mitigation incorporated into the project design to reduce, avoid or offset significantadverse impacts.
- Transfrontier nature of the impact.

Questions to be Considered For further guidance on factors to be considered see the more detailed questions listed in the Scoping Guidance	Yes / No / ? . Briefly describe	Is this likely to result in a significant effect? Yes/No/? - Why?
Brief Project Description: Development of 500 houses adjacent to an existing rural settlement at ABCville.		
1. Will construction, operation or decommissioning of the Project involve actions which will cause physical changes in the locality (topography, land use, changes in waterbodies, etc)?	Yes. The project will involve development of a large site currently in agricultural use and crossed by a small river.	Yes. Loss of agricultural land and diversion of river
3. Will the Project involve use, storage, transport, handling or production of substances or materials which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health?	No except in the small amounts typically used by householders	No
4. Will the Project produce solid wastes during construction or operation or decommissioning?	Yes. Construction will require excavation of a small hill and transport and disposal or re-use of a large quantity of spoil.	Yes. Transport could have significant impact on neighbouring village

9. Will the Project result in social changes, for example, in demography, traditional lifestyles, employment?	No. The existing village was mainly built in the 1950s.	No
Scoping Guidance 10. Are there any other factors which should be considered such as consequential development which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality?	Yes/No? - Why? Yes. The project will require extension of the village sewage works which is already overloaded.	Yes. There is not much space to extend the works and it already causes odour problems in the village

THE SCREENING CHECKLIST

Questions to be Considered For further guidance on factors to be considered see the more detailed questions listed in the Scoping Guidance	Yes / No / ? . Briefly describe	Is this likely to result in a significant effect? Yes/No/? – Why?
Brief Project Description:		
1. Will construction, operation or decommissioning of the Project involve actions which will cause physical changes in the locality (topography, land use, changes in waterbodies, etc)?		
2. Will construction or operation of the Project use natural resources such as land, water, materials or energy, especially any resources which are non-renewable or in short supply?		
3. Will the Project involve use, storage, transport, handling or production of substances or materials which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health?		

Key Elements of EIA

1 **Screening:** decide whether an EIA is required based on information collected;

2 **Scoping: identify key issues and concerns of interested parties;**

3 **Identifying and evaluating project alternatives:** list alternative sites and techniques and the impacts of each;

4 **Mitigating measures** dealing with uncertainty: review the proposed actions to prevent or minimise the potential adverse effects of the project;

5 **Issuing environmental statements**: report the findings of the EIA.

6- Pubblic participation

What is Scoping?

Scoping is used to identify the key issues of concern at an early stage in the planning process.

Scoping should be carried out at an early stage in order to aid site selection and identify any possible alternatives.

The scoping process should involve *all interested parties* such as the proponent and planning or environmental agencies and members of the public.

Scoping

Why carry out Scoping?

To identify the ***key issues*** and ***concerns*** of the interested parties.

Who is concerned?

What are their concerns?

Why are they concerned?

What is the threshold of concern where change becomes unacceptable?

When ineffective scoping occurs delays are caused by additional time being required to assess unidentified impacts.

Once the site for development has been selected the scoping angle changes.

There will be a *decrease in the number of issues* and an *increase in attention to detail* .

Scoping should be an ongoing exercise throughout the course of the project.

Scoping

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.

Types d'impacts

	Convention d'Espoo (ONU)	Banque mondiale	Etats-Unis	Canada	Australie	Communauté Européenne	France	Pays-Bas	Suisse
Impacts directs	■	■	■	■	■	■	■	■	■
Impacts indirects			■		■	■	■	■	■
Impacts cumulatifs		■	■	■	■	■		■	
Impacts irréversibles		■	■						
Impacts synergiques	■							■	■
Impacts secondaires					■	■		■	▨
Impacts positifs		■	■		■	■			
Impacts temporaires						■	■		▨
Impacts permanents						■	■		▨
Impacts transfrontières	■	■		■		■	■	■	▨
Impacts inévitables		■	■						

▨ Précisé dans les directives seulement (scoping)

Scoping

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.

Scoping

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?

Scoping

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?

Scoping

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?

Scoping Checklist (UE)

This checklist is designed to help users identify the likely significant environmental effects of proposed projects during scoping.

It is to be used in conjunction with the Checklist of Criteria for Evaluating the Significance of Impacts.

There are two stages:

- first, identifying the potential impacts of projects;
- second selecting those which are likely to be significant and therefore require most attention in the assessment.

Scoping Checklist

No.	Questions to be considered in Scoping	Yes/ No/ ?	Which Characteristics of the Project Environment could be affected?	Is the effect likely to be significant? Why?
1. Will the project involve any actions during construction, operation or decommissioning which would create changes in the locality as a result of the nature, scale, form or purpose of the new development?				
1.6	Demolition works?	yes	Will require demolition of 2 historic buildings	Yes - Buildings are nationally designated
1.11	Dredging?	yes	Will involve dredging of canal to create new waterfront	No - Canal is regularly dredged anyway
2. Will the project use any natural resources, especially any resources which are non-renewable or in short supply?				
2.4	Aggregates?	Yes	Creation of development platform will use large amount of imported material – soil and aggregate. Indirect effect at extraction sites which are in greenfield area	Yes – major change in environment at extraction sites. Impact on large numbers of people nearby. Will place major strain on local supplies

Scoping Checklist

No.	Questions to be considered in Scoping	Yes/ No/ ?	Which Characteristics of the Project Environment could be affected?	Is the effect likely to be significant? Why?
3.4	Are there especially vulnerable groups of people who could be affected by the project eg hospital patients, the elderly?	Yes	Project location is adjacent to regional hospital and long term care centre. Potential for significant noise and other disturbance during construction	Yes - Hospital environment may become much noisier over one year construction period.
4. Will the project produce solid wastes during construction or operation or decommissioning?				
4.2	Municipal waste (household and or commercial wastes)?	Yes	New population will generate household and other wastes	No- there is ample local waste management capacity

Scoping Checklist

When using this Scoping Checklist it is important to remember that secondary and high order effects occur as a result of a primary interaction between a project activity and the project environment.

So a change in site run-off can affect the hydrology of a watercourse; this can subsequently affect water quality and the ecology of the watercourse; and this can then affect fishing and other uses of the water.

Where a primary effect is identified the user should always think about whether secondary or further effects on other aspects of the environment could arise as a result.

Scoping Checklist

Users should remember that effects can occur not only **Permanently** and over the long term but also **temporarily**, for ex. just during construction, commissioning or decommissioning or just during certain phases of project operation, or that may occur only intermittently, for ex. during certain periods of activity or times of year or as a result of abormal events affecting the project (accidents, freak weather conditions, earthquakes, etc.).

The Directive requires EIA to consider effects that could arise **indirectly** from the project, for ex. as a result of other development which takes place as a consequence of the project e.g. to provide access, power or water supplies, sewage treatment or waste disposal, or to house or provide jobs for people attracted to the area by the project. It requires consideration of cumulative that could arise from a combination of the project's effects with those of other existing or planned developments in the surrounding area.

Part 1 of The Scoping Checklist: QUESTIONS ON PROJECT CHARACTERISTICS

No.	Questions to be considered in Scoping	Yes/No/?	Which Characteristics of the Project Environment could be affected and how?	Is the effect likely to be significant? Why?
1. Will construction, operation or decommissioning of the Project involve actions which will cause physical changes in the locality (topography, land use, changes in waterbodies, etc)?				
1.1	Permanent or temporary change in land use, landcover or topography including increases in intensity of land use?			
1.2	Clearance of existing land, vegetation and buildings?			
1.3	Creation of new land uses?			
1.4	Pre-construction investigations eg boreholes, soil testing?			

QUESTION - ARE THERE FEATURES OF THE LOCAL ENVIRONMENT ON OR AROUND THE PROJECT LOCATION WHICH COULD BE AFFECTED BY THE PROJECT?

- Areas which are protected under international or national or local legislation for their ecological, landscape, cultural or other value, which could be affected by the project?
- Other areas which are important or sensitive for reasons of their ecology e.g.
  - Wetlands,
  - Watercourses or other waterbodies,
  - the coastal zone,
  - mountains,
  - forests or woodlands
- Areas used by protected, important or sensitive species of fauna or flora e.g. for breeding, nesting, foraging, resting, overwintering, migration, which could be affected by the project?
- Inland, coastal, marine or underground waters?
- Areas or features of high landscape or scenic value?
- Routes or facilities used by the public for access to recreation or other facilities?
- Transport routes which are susceptible to congestion or which cause environmental problems?
- Areas or features of historic or cultural importance?

1.1. Question - Is the Project in a location where it is likely to be highly visible to many people?

Question - Is the Project located in a previously undeveloped area where there will be loss of greenfield land?

Question - Are there existing land uses on or around the Project location which could be affected by the Project? For example:

- Homes, gardens, other private property,
- Industry,
- Commerce,
- Recreation,
- public open space,
- community facilities,
- agriculture,
- forestry,
- tourism,
- mining or quarrying

Question - Are there any plans for future land uses on or around the location which could be affected by the Project?

Question - Are there any areas on or around the location which are densely populated or built-up, which could be affected by the Project?

Question - Are there any areas on or around the location which are occupied by sensitive land uses which could be affected by the Project?

- hospitals,
- schools,
- places of worship,
- community facilities

Environmental Statements

The EIA required to produce the Environmental Statement (EIS).

The EIS is a comprehensive document that reports the findings of the EIA.

This is the final stage of the EIA process and is now often required by law before a new project can proceed.

A typical EIS can be broken down into three parts with different levels of detail:

A comprehensive and concise document drawing together all relevant information regarding the project;

Non-Technical Summary (NTS) - a brief report of volume one in non-technical language so that it can easily be understood by the public;

A part which contains detailed assessment of the significant environmental effects.

Appraising predicted impacts in draft EIS

Evaluating the significance of predicted impacts is an integral part of EIA analysis and review. Appraisal techniques range from the intuitive to the analytical, from qualitative to quantitative, and from formal to informal.

In general, impacts can be separated into two groups:

(a) Impacts that are appraised on the basis of educated guesses and qualitative judgements built on:

(i) Past experience and documents from similar national and international projects;

(ii) Opinions of specialist experts, and qualified decision makers;

(iii) Opinions of the public directly affected by potential impacts;

(iv) Opinions of concerned NGOs;

(v) Compatibility with general sustainable development objectives.

(b) Impacts that are determined in relation to established regulations, documented standards, accepted codes or defined goals.

(i) Environmental quality standards (or ambient standards) related to air, water, and—to a lesser extent—land.

These standards set maximum allowable thresholds for a specific pollutant in a receiving medium (i.e., air, water or soil).

(ii) Environmental performance standards (emission and effluent standards) limit the amount or the rate of discharge released by a facility into the environment over a specified period of time.

These standards should take into consideration the cumulative effect of releasing a specific pollutant into the environment and the assimilative capacity of the environment to accept that pollutant.

(iii) Technology standards, such as BAT or BATNEEC, must mentioned.

The Qualities of a Good EIS

- A clear structure with a logical sequence for example, describing, existing baseline conditions, predicted impacts (nature, extent and magnitude), scope for mitigation, agreed mitigation measures, significance of unavoidable/residual impacts for each environmental topic.
- A table of contents at the beginning of the document.
- A clear description of the development consent procedure and how EIA fits within it.
- Reads as a single document with appropriate cross-referencing.
- Is concise, comprehensive and objective.
- Is written in an impartial manner without bias.
- Includes a full description of the development proposals.
- Makes effective use of diagrams, illustrations, photographs and other graphics to support the text.
- Uses consistent terminology with a glossary.
- References all information sources used.
- Has a clear explanation of complex issues.
- Contains a good description of the methods used for the studies of each environmental topic.
- Covers each environmental topic in a way which is proportionate to its importance.
- Provides evidence of good consultations.
- Includes a clear discussion of alternatives.
- Makes a commitment to mitigation (with a programme) and to monitoring.
- Has a Non Technical Summary which does not contain technical jargon.

Alternatives

This includes both ***alternative sites*** *and* ***alternative techniques*****.**

This search must be genuine, well documented and carried out before a choice has been made.

It is usually the case that alternative sites are available as well as practical although this is not always the case.

Some projects are site specific such as mining.

The extraction can only occur were the mineral is sited.

In such cases an EIS is pointless although other measures such as scale, mitigating measures and traffic management are addressed.

Mitigating Measures

Action taken to prevent, avoid or minimise the actual or potential adverse effects of a project.

The measure could include the abandoning or modifying of a proposal, substitution of techniques using BATNEEC (Best Available Technology Not Entailing Excessive Costs).

This would include the various pollution abatement techniques that would be required to reduce emissions to the legal limits.

(for details see apposite power point)

EIA in Egypt

- The EEAA Guidelines classify projects into three groups to reflect the potential severity of environmental impacts:
- White list projects: those likely to have minor environmental impact. The developer applies to the CAA before construction works are initiated, with a letter of intent, accompanied by Environmental Screening Form “A”. An EIA is not required for these projects.
- Grey list project: Those, which may result in significant environmental impact. The developer applies to the CAA before construction works are initialed, with a letter of intent accompanied by Environmental Screening Form “B”. A scoped EIA for such projects or for parts of such projects may be required at the discretion of the EEAA.

- Black list projects: Those projects, which require complete EIA due to their potential impacts.

The developer applies to the CAA before construction works are initiated, with a letter of intent, accompanied by the scoped EIA.

The EEAA Guidelines include in Annex 1 sectoral guidelines for establishments that need full EIA.