

“Capacity Building and Strengthening Institutional Arrangement”

Workshop: “Environmental Impact Assessment (EIA)  
(for Assessors)”

**Methods of Environmental Impact Identification  
and Prediction in terms of appropriate tools**

**Check list for: Screening, Scoping, Review**

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APAT

Agency for Environmental Protection and Technical Services

**GUIDANCE ON EIA****Guidance on EIA**  
***Screening***

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## GLOSSARY OF TERMS

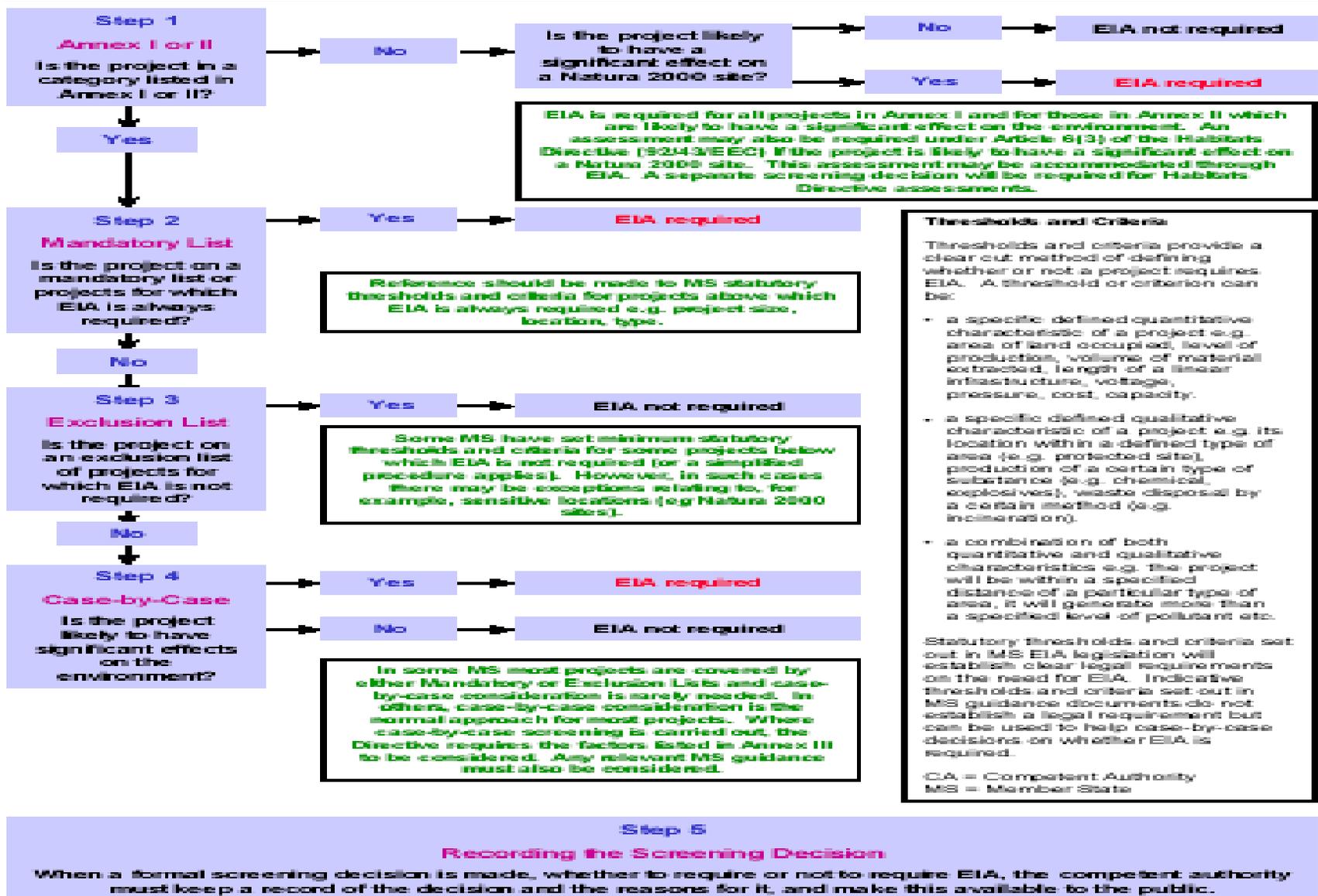
Term	Explanation
Accession Countries	Countries which are seeking to become Members States of the European Union.
Competent Authority (CA)	Those which the Member States designate as responsible for performing the duties arising from the Directive.
Developer	The applicant for authorisation for a private Project or the public authority which initiates a Project.
Development Consent	The decision of the Competent Authority or Authorities which entitles the Developer to proceed with the Project.
Effect/Impact	Any change in the physical, natural or cultural environment brought about by a development Project. Effect and Impact are used interchangeably.
EIA Team	The team which carries out the Environmental Studies and prepares the Environmental information for submission to the Competent Authority
Environmental Impact Assessment (EIA)	A term used in this document to describe the procedure which fulfils the assessment requirements of Directive 97/11/EC.
Environmental Impact Statement (EIS)	In many but not all EIA Regimes, the Environmental information provided by the Developer to the Competent Authority is presented in the form of an Environmental Impact Statement. This is a document or documents containing the Environmental information required under Article 5 of Directive 85/337/EEC as amended by Directive 97/11/EC. The abbreviation EIS is used in the guidance to cover both Environmental Impact Statements and other formats in which environmental information is provided.
Environmental Information	The information provided by a Developer to a Competent Authority on <i>inter alia</i> the Project and its environmental effects. The requirements for this information are set out in Article 5 and Annex IV of the Directive (see Environmental Impact Assessment).
Environmental Studies	The surveys and investigations carried out by the Developer and the EIA Team in order to prepare the Environmental information for submission to the Competent Authority.
Exclusion List	A list of thresholds and criteria for specified categories of projects defining those projects for which EIA is not required because they are considered to be unlikely to have significant effects on the environment. An exclusive list may be over-ridden by other requirements e.g. that EIA is required for projects in certain locations.

Impact	see Effect.
Mandatory List	A list of thresholds and criteria for specified categories of projects defining those projects for which EIA is always required because they are considered to be likely to have significant effects on the environment.
Negative list	See Exclusion List
Positive List	See Mandatory List
Project	The execution of construction works or of other installations or schemes and other interventions in the natural surroundings and landscape including those involving the extraction of mineral resources.
Review	The process of establishing whether an EIS is adequate for the Competent Authority to use it to inform the decision on Development Consent. It is important to note that the decision will usually involve consideration of other information in addition to the environmental information, but the aim of review is to check that the environmental information is adequate.
Screening	The process by which a decision is taken on whether or not EIA is required for a particular Project.
Scoping	The process of identifying the content and extent of the Environmental Information to be submitted to the Competent Authority under the EIA procedure.

**Figure 1 The Environmental Impact Assessment (EIA) Process**

KEY STAGES	NOTES
<b>Project Preparation</b>	The developer prepares the proposals for the project
<b>Notification to Competent Authority</b>	In some MS there is a requirement for the developer to notify the CA in advance of the application for development consent. The developer may also do this voluntarily and informally.
<b>Screening</b>	The CA makes a decision on whether EIA is required. This may happen when the CA receives notification of the intention to make a development consent application, or the developer may make an application for a Screening Opinion. The Screening decision must be recorded and made public. (See the guidance on <a href="#">Screening in EIA</a> ) (Article 4).
<b>Scoping</b>	The Directive provides that developers may request a Scoping Opinion from the CA. The Scoping Opinion will identify the matters to be covered in the environmental information. It may also cover other aspects of the EIA process (see the guidance on <a href="#">Scoping in EIA</a> ). In preparing the opinion the CA must consult the environmental authorities (Article 5(2)). In some MS Scoping is mandatory.
<b>Environmental Studies</b>	The developer carries out studies to collect and prepare the environmental information required by Article 5 of the Directive (see <a href="#">Appendix D</a> ).
<b>Submission of Environmental Information to Competent Authority</b>	The developer submits the environmental information to the CA together with the application for development consent. If an application for an Annex I or II project is made without environmental information the CA must screen the project to determine whether EIA is required (see above) (Articles 5(1) and 5(3)). In most MS the environmental information is presented in the form of an Environmental Impact Statement (EIS).
<b>Review of Adequacy of the Environmental Information</b>	In some MS there is a formal requirement for independent review of the adequacy of the environmental information before it is considered by the CA. In other MS the CA is responsible for determining whether the information is adequate. The guidance on <a href="#">EIS Review</a> is designed to assist at this stage. The developer may be required to provide further information if the submitted information is deemed to be inadequate.
<b>Consultation with Statutory Environmental Authorities, Other Interested Parties and the Public</b>	The environmental information must be made available to authorities with environmental responsibilities and to other interested organisations and the general public for review. They must be given an opportunity to comment on the project and its environmental effects, before a decision is made on development consent. If transboundary effects are likely to be significant other affected MS must be consulted (Articles 6 and 7).
<b>Consideration of the Environmental Information by the Competent Authority before making Development Consent Decision</b>	The environmental information and the results of consultations must be considered by the CA in reaching its decision on the application for development consent (Article 8).
<b>Announcement of Decision</b>	The decision must be made available to the public including the reasons for it and a description of the measures that will be required to mitigate adverse environmental effects (Article 9).
<b>Post-Decision Monitoring if Project is Granted Consent</b>	There may be a requirement to monitor the effects of the project once it is implemented.

**Figure 2 The Steps in Screening**



EIA is required for all projects in Annex I and for those in Annex II which are likely to have a significant effect on the environment. An assessment may also be required under Article 6(3) of the Habitats Directive (92/43/EEC) if the project is likely to have a significant effect on a Natura 2000 site. This assessment may be accommodated through EIA. A separate screening decision will be required for Habitats Directive assessments.

Reference should be made to MS statutory thresholds and criteria for projects above which EIA is always required e.g. project size, location, type.

Some MS have set minimum statutory thresholds and criteria for some projects below which EIA is not required (or a simplified procedure applies). However, in such cases there may be exceptions relating to, for example, sensitive locations (e.g. Natura 2000 sites).

In some MS most projects are covered by either Mandatory or Exclusion Lists and case-by-case consideration is rarely needed. In others, case-by-case consideration is the normal approach for most projects. Where case-by-case screening is carried out, the Directive requires the factors listed in Annex III to be considered. Any relevant MS guidance must also be considered.

**Thresholds and Criteria**

Thresholds and criteria provide a clear cut method of defining whether or not a project requires EIA. A threshold or criterion can be:

- a specific defined quantitative characteristic of a project e.g. area of land occupied, level of production, volume of material extracted, length of a linear infrastructure, voltage, pressure, cost, capacity.
- a specific defined qualitative characteristic of a project e.g. its location within a defined type of area (e.g. protected site), production of a certain type of substance (e.g. chemical, explosives), waste disposal by a certain method (e.g. incineration).
- a combination of both quantitative and qualitative characteristics e.g. the project will be within a specified distance of a particular type of area, it will generate more than a specified level of pollutant etc.

Statutory thresholds and criteria set out in MS EIA legislation will establish clear legal requirements on the need for EIA. Indicative thresholds and criteria do not establish a legal requirement but can be used to help case-by-case decisions on whether EIA is required.

CA = Competent Authority  
MS = Member State

## **APPENDIX C**

### **ANNEX III SCREENING SELECTION CRITERIA**

Article 4(3) of Directive 97/11/EC requires that Competent Authorities must take into account the selection criteria set out in Annex III of the Directive when making screening decisions on a case-by-case basis and when setting thresholds and criteria for projects requiring EIA.

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#### **1. Characteristics of Projects**

The characteristics of projects must be considered having regard, in particular, to:

- \* the size of the project,
- \* the cumulation with other projects,
- \* the use of natural resources,
- \* the production of waste,
- \* pollution and nuisances,
- \* the risk of accidents, having regard in particular to substances or technologies used.

#### **2. Location of Projects**

The environmental sensitivity of geographical areas likely to be affected by projects must be considered, having regard, in particular, to:

- \* the existing land use,
- \* the relative abundance, quality and regenerative capacity of natural resources in the area,
- \* the absorption capacity of the natural environment, paying particular attention to the following areas:
  - \* wetlands;
  - \* coastal zones;
  - \* mountain and forest areas;
  - \* nature reserves and parks;
  - \* areas classified or protected under Member States' legislation;
  - \* special protection areas designated by Member States pursuant to Directive 79/409/EEC and 92/43/EEC;
  - \* areas in which the environmental quality standards laid down in Community legislation have already been exceeded;
  - \* densely populated areas;
  - \* landscapes of historical, cultural or archaeological significance.

#### **3. Characteristics of the Potential Impact**

The potential significant effects of projects must be considered in relation to criteria set out under 1 and 2 above, and having regard in particular to:

- \* the extent of the impact (geographical area and size of the affected population),
  - \* the transfrontier nature of the impact,
  - \* the magnitude and complexity of the impact,
  - \* the probability of the impact,
  - \* the duration, frequency and reversibility of the impact.
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## THE SCREENING CHECKLIST

<b>Questions to be Considered</b> For further guidance on factors to be considered see the more detailed questions listed in the <u>Scoping Guidance</u>	<b>Yes / No / ? . Briefly describe</b>	<b>Is this likely to result in a significant effect? Yes/No/? – Why?</b>
<b>Brief Project Description:</b>		
<b>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)?</b>		
<b>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?</b>		
<b>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?</b>		
<b>4. Will the Project produce solid wastes during construction or operation or decommissioning?</b>		
<b>5. Will the Project release pollutants or any hazardous, toxic or noxious substances to air?</b>		
<b>6. Will the Project cause noise and vibration or release of light, heat energy or electromagnetic radiation?</b>		

<p>7. Will the Project lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater, coastal waters or the sea?</p>		
<p>8. Will there be any risk of accidents during construction or operation of the Project which could affect human health or the environment?</p>		
<p>9. Will the Project result in social changes, for example, in demography, traditional lifestyles, employment?</p>		
<p>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?</p>		
<p>11. Are there any areas on or around the location 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?</p>		

<b>Questions to be Considered</b> For further guidance on factors to be considered see the more detailed questions listed in the <b>Scoping Guidance</b>	<b>Yes / No / ? . Briefly describe</b>	<b>Is this likely to result in a significant effect? Yes/No/? – Why?</b>
<b>12. Are there any other areas on or around the location which are important or sensitive for reasons of their ecology e.g. wetlands, watercourses or other waterbodies, the coastal zone, mountains, forests or woodlands, which could be affected by the project?</b>		
<b>13. Are there any areas on or around the location which are 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?</b>		
<b>14. Are there any inland, coastal, marine or underground waters on or around the location which could be affected by the project?</b>		
<b>15. Are there any areas or features of high landscape or scenic value on or around the location which could be affected by the project?</b>		
<b>16. Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected by the project?</b>		
<b>17. Are there any transport routes on or around the location which are susceptible to congestion or which cause environmental problems, which could be affected by the project?</b>		

<p>18. Is the project in a location where it is likely to be highly visible to many people?</p>		
<p>19. Are there any areas or features of historic or cultural importance on or around the location which could be affected by the project?</p>		
<p>20. Is the project located in a previously undeveloped area where there will be loss of greenfield land?</p>		
<p>21. Are there existing land uses on or around the location e.g. homes, gardens, other private property, industry, commerce, recreation, public open space, community facilities, agriculture, forestry, tourism, mining or quarrying which could be affected by the project?</p>		
<p>22. Are there any plans for future land uses on or around the location which could be affected by the project?</p>		
<p>23. Are there any areas on or around the location which are densely populated or built-up, which could be affected by the project?</p>		

<b>Questions to be Considered</b> For further guidance on factors to be considered see the more detailed questions listed in the <u>Scoping Guidance</u>	<b>Yes / No / ? . Briefly describe</b>	<b>Is this likely to result in a significant effect? Yes/No/? – Why?</b>
24. Are there any areas on or around the location which are occupied by sensitive land uses e.g. hospitals, schools, places of worship, community facilities, which could be affected by the project?		
25. Are there any areas on or around the location which contain important, high quality or scarce resources e.g. groundwater, surface waters, forestry, agriculture, fisheries, tourism, minerals, which could be affected by the project?		
26. Are there any areas on or around the location which are already subject to pollution or environmental damage e.g. where existing legal environmental standards are exceeded, which could be affected by the project?		
27. Is the project location susceptible to earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions e.g. temperature inversions, fogs, severe winds, which could cause the project to present environmental problems?		
<b>Summary of features of project and of its location indicating the need for EIA</b>		

**GUIDANCE ON EIA**

Guidance on EIA  
*Scoping*

June 2001

## 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?
<b>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)?</b>				
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?			
1.5	Construction works?			
1.6	Demolition works?			

1.7	Temporary sites used for construction works or housing of construction workers?			
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations?			
1.9	Underground works including mining or tunnelling?			
1.10	Reclamation works?			
1.11	Dredging?			
1.12	Coastal structures eg seawalls, piers?			
1.13	Offshore structures?			
1.14	Production and manufacturing processes?			

1.15	Facilities for storage of goods or materials?			
1.16	Facilities for treatment or disposal of solid wastes or liquid effluents?			

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?
1.17	Facilities for long term housing of operational workers?			
1.18	New road, rail or sea traffic during construction or operation?			
1.19	New road, rail, air, waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?			
1.20	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?			
1.21	New or diverted transmission lines or pipelines?			
1.22	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?			

1.23	Stream crossings?			
1.24	Abstraction or transfers of water from ground or surface waters?			
1.25	Changes in waterbodies or the land surface affecting drainage or run-off?			
1.26	Transport of personnel or materials for construction, operation or decommissioning?			
1.27	Long term dismantling or decommissioning or restoration works?			
1.28	Ongoing activity during decommissioning which could have an impact on the environment?			

1.29	Influx of people to an area in either temporarily or permanently?			
1.30	Introduction of alien species?			
1.31	Loss of native species or genetic diversity?			
1.32	Any other actions?			
<b>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?</b>				
2.1	Land especially undeveloped or agricultural land?			
2.2	Water?			

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?
2.3	Minerals?			
2.4	Aggregates?			
2.5	Forests and timber?			
2.6	Energy including electricity and fuels?			
2.7	Any other resources?			

**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?**

3.1	Will the project involve use of substances or materials which are hazardous or toxic to human health or the environment (flora, fauna, water supplies)?			
3.2	Will the project result in changes in occurrence of disease or affect disease vectors (eg insect or water borne diseases)?			
3.3	Will the project affect the welfare of people eg by changing living conditions?			
3.4	Are there especially vulnerable groups of people who could be affected by the project eg hospital patients, the elderly?			
3.5	Any other causes?			

4. Will the Project produce solid wastes during construction or operation or decommissioning?				
4.1	Spoil, overburden or mine wastes?			
4.2	Municipal waste (household and or commercial wastes)?			
4.3	Hazardous or toxic wastes (including radioactive wastes)?			
4.4	Other industrial process wastes?			
4.5	Surplus product?			
4.6	Sewage sludge or other sludges from effluent treatment?			
4.7	Construction or demolition wastes?			

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?
4.8	Redundant machinery or equipment?			
4.9	Contaminated soils or other material?			
4.10	Agricultural wastes?			
4.11	Any other solid wastes?			

<b>5. Will the Project release pollutants or any hazardous, toxic or noxious substances to air?</b>				
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources?			
5.2	Emissions from production processes?			
5.3	Emissions from materials handling including storage or transport?			
5.4	Emissions from construction activities including plant and equipment?			
5.5	Dust or odours from handling of materials including construction materials, sewage and waste?			
5.6	Emissions from incineration of waste?			
5.7	Emissions from burning of waste in open air (eg slash material, construction debris)?			
5.8	Emissions from any other sources?			

6. Will the Project cause noise and vibration or release of light, heat energy or electromagnetic radiation?				
6.1	From operation of equipment eg engines, ventilation plant, crushers?			
6.2	From industrial or similar processes?			
6.3	From construction or demolition?			
6.4	From blasting or piling?			
6.5	From construction or operational traffic?			

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?
6.6	From lighting or cooling systems?			
6.7	From sources of electromagnetic radiation (consider effects on nearby sensitive equipment as well as people)?			
6.8	From any other sources?			

**7. Will the Project lead to risks of contamination of land or water from releases of pollutants onto the ground or into sewers, surface waters, groundwater, coastal waters or the sea?**

7.1	From handling, storage, use or spillage of hazardous or toxic materials?			
7.2	From discharge of sewage or other effluents (whether treated or untreated) to water or the land?			
7.3	By deposition of pollutants emitted to air, onto the land or into water?			
7.4	From any other sources?			
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?			

B.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous or toxic substances?			
B.2	From events beyond the limits of normal environmental protection eg failure of pollution control systems?			
B.3	From any other causes?			
B.4	Could the project be affected by natural disasters causing environmental damage (eg floods, earthquakes, landslip, etc)?			

<b>9. Will the Project result in social changes, for example, in demography, traditional lifestyles, employment?</b>			
<b>9.1</b>	<b>Changes in population size, age, structure, social groups etc?</b>		
<b>9.2</b>	<b>By resettlement of people or demolition of homes or communities or community facilities eg schools, hospitals, social facilities?</b>		
<b>9.3</b>	<b>Through in-migration of new residents or creation of new communities?</b>		
<b>9.4</b>	<b>By placing increased demands on local facilities or services eg housing, education, health?</b>		

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?
9.5	By creating jobs during construction or operation or causing the loss of jobs with effects on unemployment and the economy?			
9.6	Any other causes?			

9.1	<p>Will the project lead to pressure for consequential development which could have significant impact on the environment eg more housing, new roads, new supporting industries or utilities, etc?</p>			
9.2	<p>Will the project lead to development of supporting facilities, ancillary development or development stimulated by the project which could have impact on the environment eg:</p> <ul style="list-style-type: none"> <li>• supporting infrastructure (roads, power supply, waste or waste water treatment, etc)</li> <li>• housing development</li> <li>• extractive industries</li> <li>• supply industries</li> <li>• other?</li> </ul>			
9.3	<p>Will the project lead to after-use of the site which could have an impact on the environment?</p>			
9.4	<p>Will the project set a precedent for later developments?</p>			
9.5	<p>Will the project have cumulative effects due to proximity to other existing or planned projects with similar effects?</p>			

## APPENDIX A

### ENVIRONMENTAL INFORMATION REQUIREMENTS SET OUT IN ANNEX IV OF DIRECTIVE 97/11/EC

Article 5(1) of Directive 97/11/EC requires the Developer to provide to the Competent Authority the information set out below in so much as the information is relevant to the given stage of the consent procedure and to the specific characteristics of the project and of the environmental features likely to be affected, and the developer may reasonably be required to compile the information having regard *inter alia* to current knowledge and methods of assessment.

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#### Environmental Information Requirements for EIA

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1. Description of the project, including in particular:
    - a description of the physical characteristics of the whole project and the land-use requirements during the construction and operational phases,
    - a description of the main characteristics of the production processes, for instance, nature and quantity of the materials used,
    - an estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed project.
  2. An outline of the main alternatives studied by the developer and an indication of the main reasons for this choice, taking into account the environmental effects.
  3. A description of the aspects of the environment likely to be significantly affected by the proposed project, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between the above factors.
  4. A description of the likely significant effects of the proposed project on the environment resulting from:
    - the existence of the project,
    - the use of natural resources,
    - the emission of pollutants, the creation of nuisances and the elimination of waste,
 and the description by the developer of the forecasting methods used to assess the effects on the environment.
  5. A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment
  6. A non-technical summary of the information provided under the above headings.
  7. An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the developer in compiling the required information.
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**GUIDANCE ON EIA****Guidance on EIA**  
***EIS Review***

June 2001

## The Review Checklist

SECTION 1 DESCRIPTION OF THE PROJECT				
No.	Review Question	Relevant?	Adequately Addressed?	What further information is needed?
<b>The Objectives and Physical Characteristics of the Project</b>				
1.1	Are the need for and objectives of the project explained?			
1.2	Is the programme for implementation of the Project described, detailing the estimated length of time and start and Finish dates for construction, operation and decommissioning? (this should include any phases of different activity within the main phases of the Project, for example extraction phases for mining operations)			
1.3	Are all the main components of the project described (for assistance see the Checklist of Project Activities in Part C of the Scoping Guide in this series)			
1.4	Is the location of each Project component identified, using maps, plans and diagrams as necessary?			

**SECTION 1 DESCRIPTION OF THE PROJECT**

No.	Review Question	Relevant?	Adequately Addressed?	What further information is needed?
1.5	Is the layout of the site (or sites) occupied by the project described? (including ground levels, buildings, other physical structures, underground works, coastal works, storage facilities, water features, planting, access corridors, boundaries)			
1.6	For linear projects, are the route corridor, the vertical and horizontal alignment and any tunnelling and earthworks described?			
1.7	Are the activities involved in construction of the project all described?			
1.8	Are the activities involved in operation of the project all described?			

<b>Production Processes and Resources Used</b>				
1.22	Are all the processes involved in operating the Project described? (e.g. manufacturing or engineering processes, primary raw material production, agricultural or forestry production methods, extraction processes)			
1.23	Are the types and quantities of outputs produced by the Project described? (these could be primary or manufactured products, goods such as power or water or services such as homes, transport, retailing, recreation, education, municipal services (water, waste, etc))			
1.24	Are the types and quantities of raw materials and energy needed for construction and operation discussed?			
1.25	Are the environmental implications of the sourcing of raw materials discussed?			
1.26	Is efficiency in use of energy and raw materials discussed?			

**Residues and Emissions**

1.33	<p>Are the types and quantities of solid waste generated by the Project identified? (including construction or demolition wastes, surplus spoil, process wastes, by-products, surplus or reject products, hazardous wastes, household or commercial wastes, agricultural or forestry wastes, site clean-up wastes, mining wastes, decommissioning wastes)</p> <ul style="list-style-type: none"> <li>• during construction</li> <li>• during operation</li> <li>• during decommissioning</li> </ul>			
1.34	<p>Are the composition and toxicity or other hazards of all solid wastes produced by the Project discussed?</p>			
1.35	<p>Are the methods for collecting, storing, treating, transporting and finally disposing of these solid wastes described?</p>			
1.36	<p>Are the locations for final disposal of all solid wastes discussed?</p>			
1.37	<p>Are the types and quantities of liquid effluents generated by the Project identified? (including site drainage and run-off, process wastes, cooling water, treated effluents, sewage)</p> <ul style="list-style-type: none"> <li>• during construction</li> <li>• during operation</li> <li>• during decommissioning</li> </ul>			

Risks of Accidents and Hazards				
1.49	<p>Are any risks associated with the Project discussed?</p> <ul style="list-style-type: none"> <li>• risks from handling of hazardous materials</li> <li>• risks from spills fire, explosion</li> <li>• risks of traffic accidents</li> <li>• risks from breakdown or failure of processes or facilities</li> <li>• risks from exposure of the Project to natural disasters (earthquake, flood, landslide, etc)</li> </ul>			
1.50	<p>Are measures to prevent and respond to accidents and abnormal events described?            (preventive measures, training, contingency plans, emergency plans, etc )</p>			

**SECTION 2 CONSIDERATION OF ALTERNATIVES**

No.	Review Question	Relevant?	Adequately Addressed?	What further information is needed?
2.1	Is the process by which the Project was developed described and are alternatives considered during this process described? (for assistance, see the guidance on types of alternatives which may be relevant in Part B3 of the Scoping Guide in this series)			
2.2	Is the baseline situation in the No Project situation described?			
2.3	Are the alternatives realistic and genuine alternatives to the Project?			
2.4	Are the main reasons for choice of the proposed Project explained, including any environmental reasons for the choice?			
2.5	Are the main environmental effects of the alternatives compared with those of the proposed Project?			
<b>Other Questions on Consideration of Alternatives</b>				

<b>SECTION 3 DESCRIPTION OF ENVIRONMENT LIKELY TO BE AFFECTED BY THE PROJECT</b>				
<b>No.</b>	<b>Review Question</b>	<b>Relevant?</b>	<b>Adequately Addressed?</b>	<b>What further information is needed?</b>
<b>Aspects of the Environment</b>				
3.1	Are the existing land uses of the land to be occupied by the Project and the surrounding area described and are any people living on or using the land identified? (including residential, commercial, industrial, agricultural, recreational and amenity land uses and any buildings, structures or other property)			
3.2	Are the topography, geology and soils of the land to be occupied by the Project and the surrounding area described?			
3.3	Are any significant features of the topography or geology of the area described and are the conditions and use of soils described? (including soil quality stability and erosion, agricultural use and agricultural land quality)			
3.4	Are the fauna and flora and habitats of the land to be occupied by the Project and the surrounding area described and illustrated on appropriate maps?			
3.5	Are species populations and characteristics of habitats that may be affected by the Project described and are any designated or protected species or areas defined?			

3.6	Is the water environment of the area described? (including running and static surface waters, groundwaters, estuaries, coastal waters and the sea and including run off and drainage. NB not relevant if water environment will not be affected by the Project)			
3.7	Are the hydrology, water quality and use of any water resources that may be affected by the Project described? (including use for water supply, fisheries, angling, bathing, amenity, navigation, effluent disposal)			
3.8	Are local climatic and meteorological conditions and existing air quality in the area described? (NB not relevant if the atmospheric environment will not be affected by the project)			
3.9	Is the existing noise climate described? (NB not relevant if acoustic environment will not be affected by the Project)			
3.10	Is the existing situation regarding light, heat and electromagnetic radiation described? (NB not relevant if these characteristics of the environment will not be affected by the Project)			

3.11	Are any material assets in the area that may be affected by the Project described? (including buildings, other structures, mineral resources, water resources)			
3.12	Are any locations or features of archaeological, historic, architectural or other community or cultural importance in the area that may be bisected the Project described, including any designated or protected sites?			
3.13	Is the landscape or townscape of the area that may be affected by the Project described, including any designated or protected landscapes and any important views or viewpoints?			

<b>Data Collection and Survey Methods</b>				
3.16	Has the study area been defined widely enough to include all the area likely to be significantly affected by the Project?			
3.17	Have all relevant national and local agencies been contacted to collect information on the baseline environment?			
3.18	Have sources of data and information on the existing environment been adequately referenced?			
3.19	Where surveys have been undertaken as part of the Environmental Studies to characterise the baseline environment are the methods used, any difficulties encountered and any uncertainties in the data described?			
3.20	Were the methods used appropriate for the purpose?			
3.21	Are any important gaps in the data on the existing environment identified and the means used to deal with these gaps during the assessment explained?			
3.22	If surveys would be required to adequately characterise the baseline environment but they have not been practicable for any reason, are the reasons explained and proposals set out for the surveys to be undertaken at a later stage?			

<b>Scoping of Effects</b>				
4.1	Is the process by which the scope of the Environmental Studies was defined described? (for assistance, see the Scoping Guide in this series)			
4.2	Is it evident that a systematic approach to scoping was adopted?			
4.3	Is it evident that full consultation was carried out during scoping?			
4.4	Are the comments and views of consultees presented?			

<b>Prediction of Direct Effects</b>				
4.5	Are direct, primary effects on land uses, people and property described and where appropriate quantified?			
4.6	Are direct, primary effects on geological features and characteristics of soils described and where appropriate quantified?			
4.7	Are direct, primary effects on fauna and flora and habitats described and where appropriate quantified?			
4.8	Are direct, primary effects on the hydrology and water quality of water features described and where appropriate quantified?			
4.9	Are direct, primary effects on uses of the water environment described and where appropriate quantified?			
4.10	Are direct, primary effects on air quality and climatic conditions described and where appropriate quantified?			
4.11	Are direct, primary effects on the acoustic environment (noise or vibration) described and where appropriate quantified?			

4.12	Are direct, primary effects on heat, light or electromagnetic radiation described and where appropriate quantified?			
4.13	Are direct, primary effects on material assets and depletion of non-renewable natural resources (e.g. fossil fuels, minerals) described?			
4.14	Are direct, primary effects on locations or features of cultural importance described?			
4.15	Are direct, primary effects on the quality of the landscape and on views and viewpoints described and where appropriate illustrated?			
4.16	Are direct, primary effects on demography, social and socio-economic condition in the area described and where appropriate quantified?			

**Prediction of Secondary, Temporary, Short Term, Permanent, Long Term, Accidental, Indirect, Cumulative Effects**

No.	Review Question	Relevant?	Adequately Addressed?	What further information is needed?
4.17	Are secondary effects on any of the above aspects of the environment caused by primary effects on other aspects described and where appropriate quantified? (e.g. effects on fauna, flora or habitats caused by soil, air or water pollution or noise; effects on uses of water caused by changes in hydrology or water quality; effects on archaeological remains caused by desiccation of soils)			
4.18	Are temporary, short term effects caused during construction or during time limited phases of project operation or decommissioning described?			
4.19	Are permanent effects on the environment caused by construction, operation or decommissioning of the Project described?			
4.20	Are long term effects on the environment caused over the lifetime of Project operations or caused by build up of pollutants in the environment described?			

4.21	Are effects which could result from accidents, abnormal events or exposure of the Project to natural or man-made disasters described and where appropriate quantified?			
4.22	Are effects on the environment caused by activities ancillary to the main project described? (ancillary activities are part of the project but usually take place distant from the main Project location e.g. construction of access routes and infrastructure, traffic movements, sourcing of aggregates or other raw materials, generation and supply of power, disposal of effluents or wastes)			
4.23	Are indirect effects on the environment caused by consequential development described? (consequential development is other projects, not part of the main Project, stimulated to take place by implementation of the Project e.g. to provide new goods or services needed for the Project, to house new populations or businesses stimulated by the Project)			
4.24	Are cumulative effects on the environment off the Project together with other existing or planned developments in the locality described? (different future scenarios including a worst case scenario should be described). For further guidance on assessment of cumulative impacts see <a href="http://europa.eu.int/comm/environment/eia/eia-support">http://europa.eu.int/comm/environment/eia/eia-support</a>			
4.25	Are the geographic extent, duration, frequency, reversibility and probability of occurrence of each effect identified as appropriate?			

Prediction of Effects on Human Health and Sustainable Development Issues				
4.26	Are primary and secondary effects on human health and welfare described and where appropriate quantified? (e.g. health effects caused by release of toxic substances to the environment, health risks arising from major hazards associated with the Project, effects caused by changes in disease vectors caused by the project, changes in living conditions, effects on vulnerable groups)			
4.27	Are impacts on issues such as biodiversity, global climate change and sustainable development discussed where appropriate?			

No.	Review Question	Relevant?	Adequately Addressed?	What further information is needed?
4.28	Is the significance or importance of each predicted effect discussed in terms of its compliance with legal requirement and the number, importance and sensitivity of people, resources or other receptors affected?			
4.29	Where effects are evaluated against legal standards or requirements are appropriate local, national or international standards used and relevant guidance followed?			
4.30	Are positive effects on the environment described as well as negative effects?			
4.31	Is the significance of each effect clearly explained?			

**Impact Assessment Methods**

4.32	Are methods used to predict effects described and are the reasons for their choice, any difficulties encountered and uncertainties in the results discussed?			
4.33	Where there is uncertainty about the precise details of the Project and its impact on the environment are worst case predictions described?			
4.34	Where there have been difficulties in compiling the data needed to predict or evaluate effects are these difficulties acknowledged and their implications for the results discussed?			
4.35	Is the basis for evaluating the significance or importance of impacts clearly described?			
4.36	Are impacts described on the basis that all proposed mitigation has been implemented i.e. are residual impacts described?			
4.37	Is the level of treatment of each effect appropriate to its importance for the development consent decision? Does the discussion focus on the key issues and avoid irrelevant or unnecessary information?			
4.38	Is appropriate emphasis given to the most severe, adverse effects of the Project with lesser emphasis given to less significant effects			

**SECTION 6 NON TECHNICAL SUMMARY**

No.	Review Question	Relevant?	Adequately Addressed?	What further information is needed?
6.1	Does the Environmental information include a Non-Technical Summary?			
6.2	Does the Summary provide a concise but comprehensive description of the Project, its environment, the effects of the Project on the environment and the proposed mitigation?			
6.3	Does the Summary highlight any significant uncertainties about the Project and its environmental effects?			
6.4	Does the Summary explain the development consent process for the Project and the role of EIA in this process?			
6.5	Does the Summary provide an overview of the approach to the assessment?			
6.6	Is the Summary written in non-technical language, avoiding technical terms, detailed data and scientific discussion?			
6.7	Would it be comprehensible to a lay member of the public?			

**SECTION 7 QUALITY OF PRESENTATION**

No.	Review Question	Relevant?	Adequately Addressed?	What further information is needed?
8.1	Is the Environmental Information available in one or more clearly defined documents?			
8.2	Is the document(s) logically organised and clearly structured so that the reader can locate information easily?			
8.3	Is there a table of contents at the beginning of the document(s)			
8.4	Is there a clear description of the process which has been followed?			
8.5	Is the presentation comprehensive but concise, avoiding irrelevant data and information?			
8.6	Does the presentation make effective use of tables, figures, maps, photographs and other graphics?			

8.7	Does the presentation make effective use of annexes or appendices to present detailed data not essential to understanding the main text?			
8.8	Are all analyses and conclusions adequately supported with data and evidence?			
8.9	Are all sources of data properly referenced?			
8.10	Is consistent terminology used throughout the document(s)?			
8.11	Does it read as a single document with cross referencing between sections used to help the reader navigate through the document(s)?			
8.12	Is the presentation demonstrably fair and as far as possible impartial and objective?			
<b>Other Questions on Quality of Presentation</b>				

**OVERALL APPRAISAL OF THE EIS**

If the reviewer wishes to use the Review Checklist to make an overall appraisal of the quality of Environmental Information, this can be done using the table below.

No.	Review Topic	Grade	Comment
1	CHARACTERISTICS OF THE PROJECT		
2	ALTERNATIVES CONSIDERED		
3	LOCATION OF THE PROJECT		
4	MITIGATION		
5	CHARACTERISTICS OF THE POTENTIAL IMPACTS		
6	PRESENTATIONAL ISSUES		

**Overall Assessment:**

Comment:

## APPENDIX A

### PROJECTS LISTED IN ANNEX I OF DIRECTIVE 97/11/EC

Article 4(1) of Directive 97/11/EC requires that the following types of projects must be subject to EIA.

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#### Annex I Projects

1. Crude-oil refineries (excluding undertakings manufacturing only lubricants from crude oil) and installations for the gasification and liquefaction of 500 tonnes or more of coal or bituminous shale per day.
2. Thermal power stations and other combustion installations with a heat output of 300 megawatts or more, and nuclear power stations and other nuclear reactors including the dismantling or decommissioning of such power stations or reactors (\*) (except research installations for the production and conversion of fissionable and fertile materials, whose maximum power does not exceed 1 kilowatt continuous thermal load).
3. (a) Installations for the reprocessing of irradiated nuclear fuel  
(b) Installations designed:
  - for the production or enrichment of nuclear fuel,
  - for the processing of irradiated nuclear fuel or high-level radioactive waste,
  - for the final disposal of irradiated nuclear fuel,
  - solely for the final disposal of radioactive waste,
  - solely for the storage (planned for more than 10 years) of irradiated nuclear fuels or radioactive waste in a different site than the production site.
4. (a) Integrated works for the initial smelting of cast-iron and steel  
(b) Installations for the production of non-ferrous crude metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic processes.
5. Installations for the extraction of asbestos and for the processing and transformation of asbestos and products containing asbestos: for asbestos-cement products, with an annual production of more than 20 000 tonnes of finished products, for friction material, with an annual production of more than 50 tonnes of finished products, and for other uses of asbestos, utilization of more than 200 tonnes per year.
6. Integrated chemical installations, i.e. those installations for the manufacture on an industrial scale of substances using chemical conversion processes, in which several units are juxtaposed and are functionally linked to one another and which are:
  - (i) for the production of basic organic chemicals;
  - (ii) for the production of basic inorganic chemicals;
  - (iii) for the production of phosphorous-, nitrogen- or potassium-based fertilizers (simple or compound fertilizers);
  - (iv) for the production of basic plant health products and of biocides;
  - (v) for the production of basic pharmaceutical products using a chemical or biological process;
  - (vi) for the production of explosives.

7. (a) Construction of lines for long-distance railway traffic and of airports (1) with a basic runway length of 2 100 m or more;  
(b) Construction of motorways and express roads (2);  
(c) Construction of a new road of four or more lanes, or realignment and/or widening of an existing road of two lanes or less so as to provide four or more lanes, where such new road, or realigned and/or widened section of road would be 10 km or more in a continuous length.
8. (a) Inland waterways and ports for inland-waterway traffic which permit the passage of vessels of over 1 350 tonnes;  
(b) Trading ports, piers for loading and unloading connected to land and outside ports (excluding ferry piers) which can take vessels of over 1 350 tonnes.
9. Waste disposal installations for the incineration, chemical treatment as defined in Annex II A to Directive 75/442/EEC (3) under heading D9, or landfill of hazardous waste (i.e. waste to which Directive 91/689/EEC (4) applies).
10. Waste disposal installations for the incineration or chemical treatment as defined in Annex II A to Directive 75/442/EEC under heading D9 of non-hazardous waste with a capacity exceeding 100 tonnes per day.

11. Groundwater abstraction or artificial groundwater recharge schemes where the annual volume of water abstracted or recharged is equivalent to or exceeds 10 million cubic metres.
12. (a) Works for the transfer of water resources between river basins where this transfer aims at preventing possible shortages of water and where the amount of water transferred exceeds 100 million cubic metres/year;  
(b) In all other cases, works for the transfer of water resources between river basins where the multi-annual average flow of the basin of abstraction exceeds 2 000 million cubic metres/year and where the amount of water transferred exceeds 5 % of this flow.  
In both cases transfers of piped drinking water are excluded.
13. Waste water treatment plants with a capacity exceeding 150 000 population equivalent as defined in Article 2 point (6) of Directive 91/271/EEC (5).
14. Extraction of petroleum and natural gas for commercial purposes where the amount extracted exceeds 500 tonnes/day in the case of petroleum and 500 000 m<sup>3</sup>/day in the case of gas.
15. Dams and other installations designed for the holding back or permanent storage of water, where a new or additional amount of water held back or stored exceeds 10 million cubic metres.

16. Pipelines for the transport of gas, oil or chemicals with a diameter of more than 800 mm and a length of more than 40 km.
17. Installations for the intensive rearing of poultry or pigs with more than:
  - (a) 85 000 places for broilers, 60 000 places for hens;
  - (b) 3 000 places for production pigs (over 30 kg); or
  - (c) 900 places for sows.
18. Industrial plants for the
  - (a) production of pulp from timber or similar fibrous materials;
  - (b) production of paper and board with a production capacity exceeding 200 tonnes per day.
19. Quarries and open-cast mining where the surface of the site exceeds 25 hectares, or peat extraction, where the surface of the site exceeds 150 hectares.
20. Construction of overhead electrical power lines with a voltage of 220 kV or more and a length of more than 15 km.
21. Installations for storage of petroleum, petrochemical, or chemical products with a capacity of 200 000 tonnes or more.

## APPENDIX B

### PROJECTS LISTED IN ANNEX II OF DIRECTIVE 97/11/EC

Article 4(2) of Directive 97/11/EC requires that the following types of projects must be subject to EIA if it is determined, either by case-by-case examination or on the basis of thresholds and criteria set by the Member State, that they are likely to have significant effects on the environment.

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#### Annex II Projects

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##### 1. Agriculture, silviculture and aquaculture

- (a) Projects for the restructuring of rural land holdings;
- (b) Projects for the use of uncultivated land or semi-natural areas for intensive agricultural purposes;
- (c) Water management projects for agriculture, including irrigation and land drainage projects;
- (d) Initial afforestation and deforestation for the purposes of conversion to another type of land use;
- (e) Intensive livestock installations (projects not included in Annex I);
- (f) Intensive fish farming;
- (g) Reclamation of land from the sea.

##### 2. Extractive industry

- (a) Quarries, open-cast mining and peat extraction (projects not included in Annex I);
- (b) Underground mining;
- (c) Extraction of minerals by marine or fluvial dredging;
- (d) Deep-drillings, in particular:
  - geothermal drilling,
  - drilling for the storage of nuclear waste material,
  - drilling for water supplies,with the exception of drillings for investigating the stability of the soil;
- (e) Surface industrial installations for the extraction of coal, petroleum, natural gas and ores, as well as bituminous shale.

### 3. Energy industry

- (a) Industrial installations for the production of electricity, steam and hot water (projects not included in Annex I);
- (b) Industrial installations for carrying gas, steam and hot water; transmission of electrical energy by overhead cables (projects not included in Annex I);
- (c) Surface storage of natural gas;
- (d) Underground storage of combustible gases;
- (e) Surface storage of fossil fuels;
- (f) Industrial briquetting of coal and lignite;
- (g) Installations for the processing and storage of radioactive waste (unless included in Annex I);
- (h) Installations for hydroelectric energy production;
- (i) Installations for the harnessing of wind power for energy production (wind farms).

### 4. Production and processing of metals

- (a) Installations for the production of pig iron or steel (primary or secondary fusion) including continuous casting;
- (b) Installations for the processing of ferrous metals:
  - (i) hot-rolling mills;
  - (ii) smithies with hammers;
  - (iii) application of protective fused metal coats;
- (c) Ferrous metal foundries;
- (d) Installations for the smelting, including the alloyage, of non-ferrous metals, excluding precious metals, including recovered products (refining, foundry casting, etc.);
- (e) Installations for surface treatment of metals and plastic materials using an electrolytic or chemical process;
- (f) Manufacture and assembly of motor vehicles and manufacture of motor-vehicle engines;
- (g) Shipyards;
- (h) Installations for the construction and repair of aircraft;
- (i) Manufacture of railway equipment;
- (j) Swaging by explosives;
- (k) Installations for the roasting and sintering of metallic ores.

**5. Mineral industry**

- (a) Coke ovens (dry coal distillation);
- (b) Installations for the manufacture of cement;
- (c) Installations for the production of asbestos and the manufacture of asbestos-products (projects not included in Annex I);
- (d) Installations for the manufacture of glass including glass fibre;
- (e) Installations for smelting mineral substances including the production of mineral fibres;
- (f) Manufacture of ceramic products by burning, in particular roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain.

**6. Chemical industry (Projects not included in Annex I)**

- (a) Treatment of intermediate products and production of chemicals;
- (b) Production of pesticides and pharmaceutical products, paint and varnishes, elastomers and peroxides;
- (c) Storage facilities for petroleum, petrochemical and chemical products.

**7. Food industry**

- (a) Manufacture of vegetable and animal oils and fats;
- (b) Packing and canning of animal and vegetable products;
- (c) Manufacture of dairy products;
- (d) Brewing and malling;
- (e) Confectionery and syrup manufacture;
- (f) Installations for the slaughter of animals;
- (g) Industrial starch manufacturing installations;
- (h) Fish-meal and fish-oil factories;
- (i) Sugar factories.

**8. Textile, leather, wood and paper industries**

- (a) Industrial plants for the production of paper and board (projects not included in Annex I);
- (b) Plants for the pretreatment (operations such as washing, bleaching, mercerization) or dyeing of fibres or textiles;
- (c) Plants for the tanning of hides and skins;
- (d) Cellulose-processing and production installations.

**9. Rubber industry - Manufacture and treatment of elastomer-based products.****10. Infrastructure projects**

- (a) Industrial estate development projects;
- (b) Urban development projects, including the construction of shopping centres and car parks;
- (c) Construction of railways and intermodal transshipment facilities, and of intermodal terminals (projects not included in Annex I);
- (d) Construction of airfields (projects not included in Annex I);
- (e) Construction of roads, harbours and port installations, including fishing harbours (projects not included in Annex I);
- (f) Inland-waterway construction not included in Annex I, canalisation and flood-relief works;
- (g) Dams and other installations designed to hold water or store it on a long-term basis (projects not included in Annex I);
- (h) Tramways, elevated and underground railways, suspended lines or similar lines of a particular type, used exclusively or mainly for passenger transport;
- (i) Oil and gas pipeline installations (projects not included in Annex I);
- (j) Installations of long-distance aqueducts;
- (k) Coastal work to combat erosion and maritime works capable of altering the coast through the construction, for example, of dykes, moles, jetties and other sea defence works, excluding the maintenance and reconstruction of such works;
- (l) Groundwater abstraction and artificial groundwater recharge schemes not included in Annex I;
- (m) Works for the transfer of water resources between river basins not included in Annex I.

## 11. Other projects

- (a) Permanent racing and test tracks for motorised vehicles;
- (b) Installations for the disposal of waste (projects not included in Annex I);
- (c) Waste-water treatment plants (projects not included in Annex I);
- (d) Sludge-deposition sites;
- (e) Storage of scrap iron, including scrap vehicles;
- (f) Test benches for engines, turbines or reactors;
- (g) Installations for the manufacture of artificial mineral fibres;
- (h) Installations for the recovery or destruction of explosive substances;
- (i) Knackers' yards.

## 12. Tourism and leisure

- (a) Ski-runs, ski-lifts and cable-cars and associated developments;

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- (b) Marinas;
- (c) Holiday villages and hotel complexes outside urban areas and associated developments;
- (d) Permanent camp sites and caravan sites;
- (e) Theme parks.

13. Any change or extension of projects listed in Annex I or Annex II, already authorised, executed or in the process of being executed, which may have significant adverse effects on the environment;  
Projects in Annex I, undertaken exclusively or mainly for the development and testing of new methods or products and not used for more than two years.