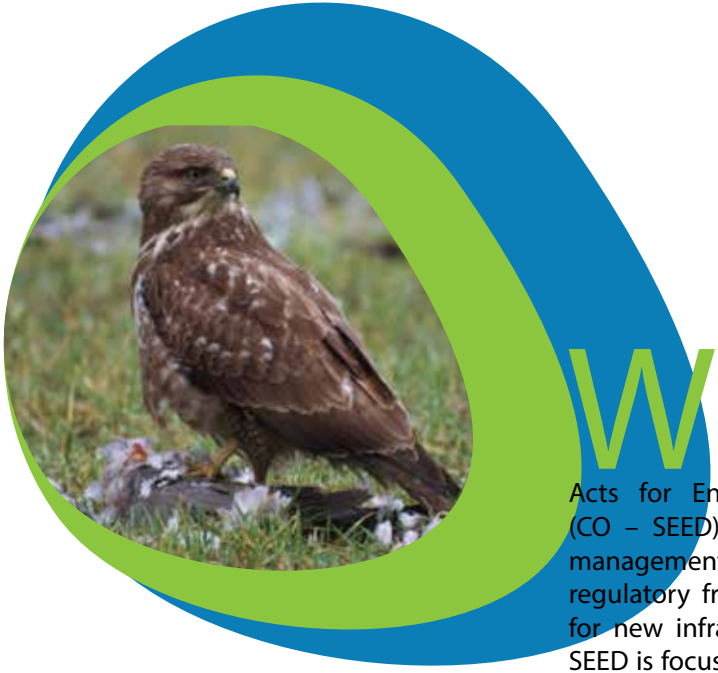
CO-SEED
CIVIL SOCIETY ACTS FOR ENVIRONMENTALLY SOUND SOCIO-ECONOMIC DEVELOPMENT

A checklist for the review of environmental impact assessment studies

This project is funded by the European Union



WWF - with partners in Albania, Bosnia and Herzegovina, Montenegro, Serbia, and Turkey - is implementing the Civil Society Acts for Environmentally Sound Socio-Economic Development (CO – SEED) project. CO-SEED is contributing to the sustainable management of natural resources by supporting improvements to regulatory frameworks and ensuring the decision-making process for new infrastructure is more participatory and transparent. CO-SEED is focusing on improving the process of environmental impact assessments and strategic environmental assessments by creating a network of informed civil society organizations across the region and increasing media interest in sustainable, environmentally friendly development. As part of this process CO-SEED and its regional network of civil society partners developed this checklist. The checklist is designed to aid evaluators – including concerned citizens, representatives of civil society organizations, and government officials – of Environmental Impact Assessments by including a set of questions that all good quality assessments will be able to answer.

CO-SEED
CIVIL SOCIETY ACTS FOR ENVIRONMENTALLY SOUND SOCIO-ECONOMIC DEVELOPMENT

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Print-friendly versions of the checklist questions are available online at:
http://co-seed.eu/en/publications/research-activities

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CONTENT

INTRODUCTION

An environmental impact assessment is a process of identifying future consequences of proposed actions with the purpose of ensuring that environmental implications are duly considered in decision-making. By proactively identifying consequences, environmental impact assessment facilitates informed decision-making based on social acceptance of environmental risks of economic development. The goal is to avoid environmental changes that would result in net harm to local people and their environment. When properly implemented, these assessments ensure transparency and inclusion, spread democratic values, and increase public participation in development of society.

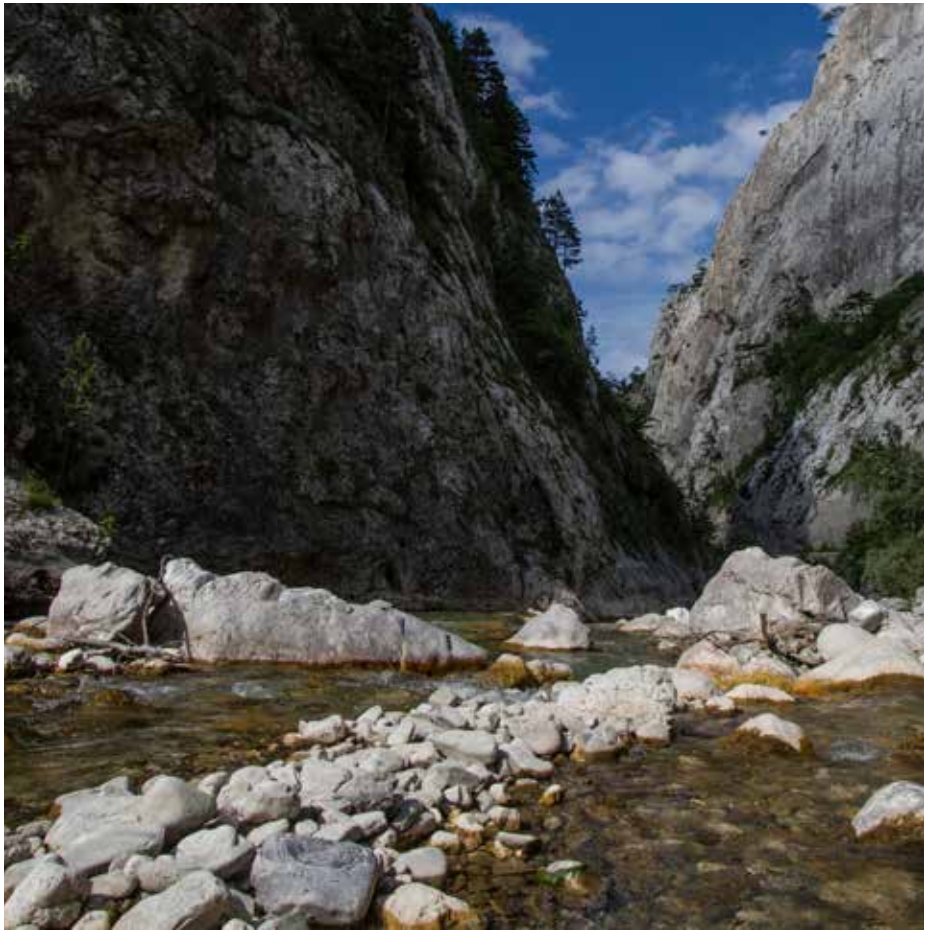
The International Association for Impact Assessment (IAIA) defines environmental impact assessment (EIA) as "the process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made".

While the details of EIA procedures differ across countries, owing to differing regulatory frameworks, the process can generally be divided into three main phases:

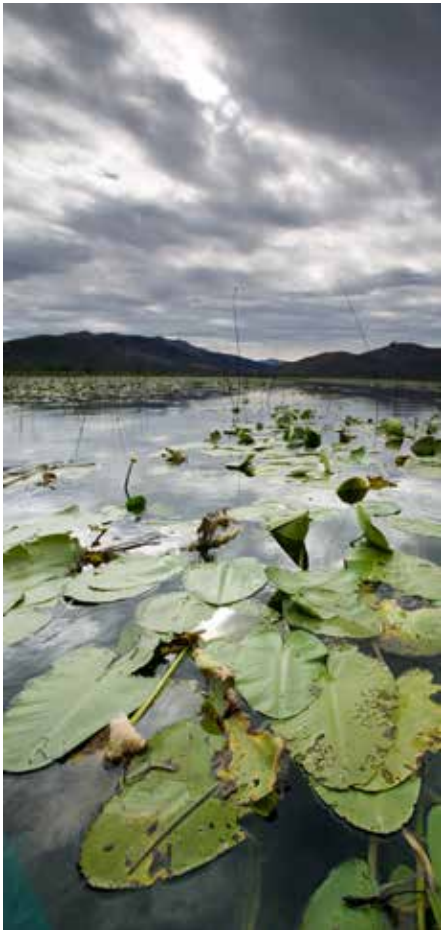
1. Determination if there is a need to assess possible impacts on the environment, considering the characteristics of a planned action (i.e. type, size, location), sometimes referred to as scoping;
2. Preparation of a comprehensive assessment of possible impacts on the environment and how those should be mitigated, the result of which is an environmental study;
3. Public consultations on the findings of the study and final decision-making.

An environmental study is a key document in the permitting chain. Its purpose is to inform the design and configuration of a proposed development, to avoid negative impacts, and to identify mitigation measures including compensation for unavoidable impacts. Thus all environmental studies need to provide expert, comprehensive, and objective advice on whether a proposed development's environmental impact is at an acceptable level.

The evaluation of the quality of such a study is not exclusively the task of the competent public authority responsible for final decision-making; experts and interested public, including non-governmental organisations, can and should engage in commenting on the information and conclusions presented in environmental studies. In this way, a study's fitness to serve as basis for making a development decision can be checked and improved.



ABOUT THIS CHECKLIST



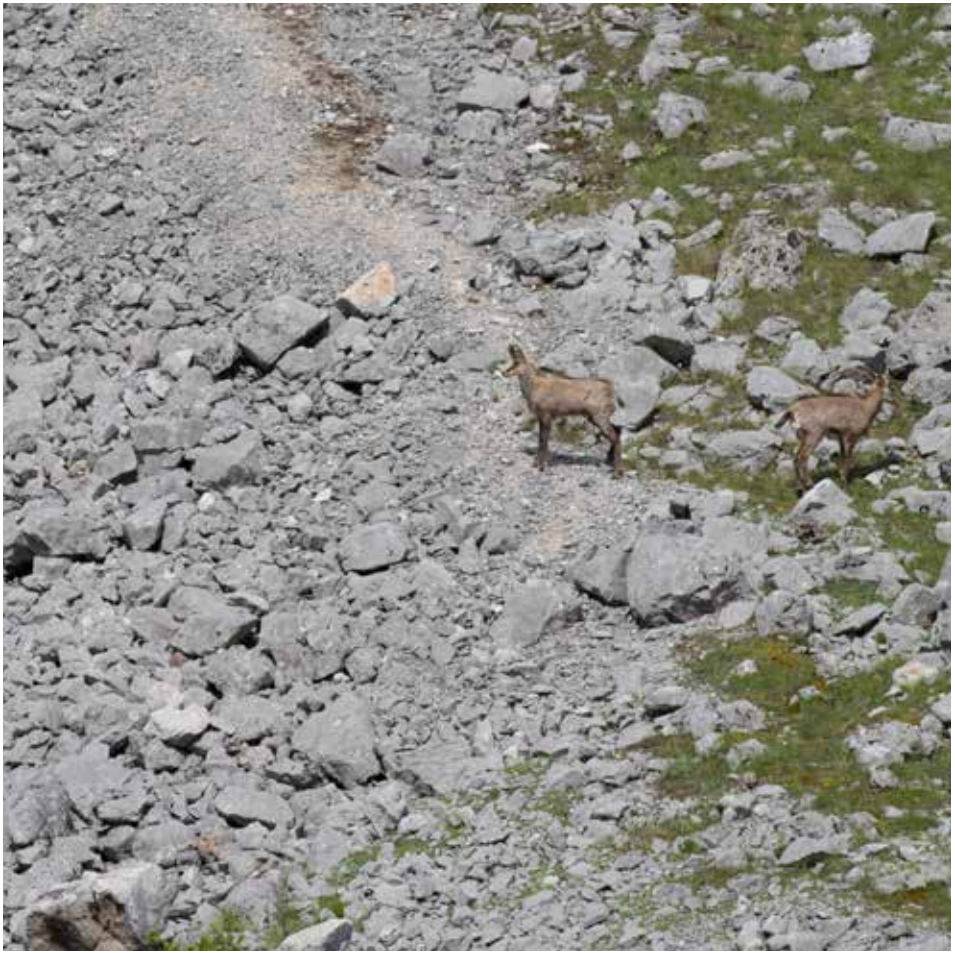
Environmental studies are often long documents. It may be necessary to read them more than once to appropriately judge whether they meet their intended purpose of objective and unbiased assessment of impacts of a proposed development on the environment. For non-practitioners in the field of environmental assessments, including non-governmental organisations and members of local communities, it may be even more difficult to assess the information presented in such a study and to react to it with quality comments. This may lead to those participants being perceived as less credible partners in consultations, with their comments disregarded or their opinions not sought at all.

There is a number of guidance documents already available which aim to facilitate better and easier preparation and review of environmental studies. Most are aimed at practitioners and decision-makers, with only a few focusing on ensuring that non-expert participants in the process deliver the best possible opinions. To help fill this gap, this document is intended to provide guidance to non-practitioners interested in actively engaging in decision-making on environmental impact assessments. It should be used by non-governmental organizations and members of local communities to gauge if all important aspects of assessing impact on the environment have been considered in an environmental study.

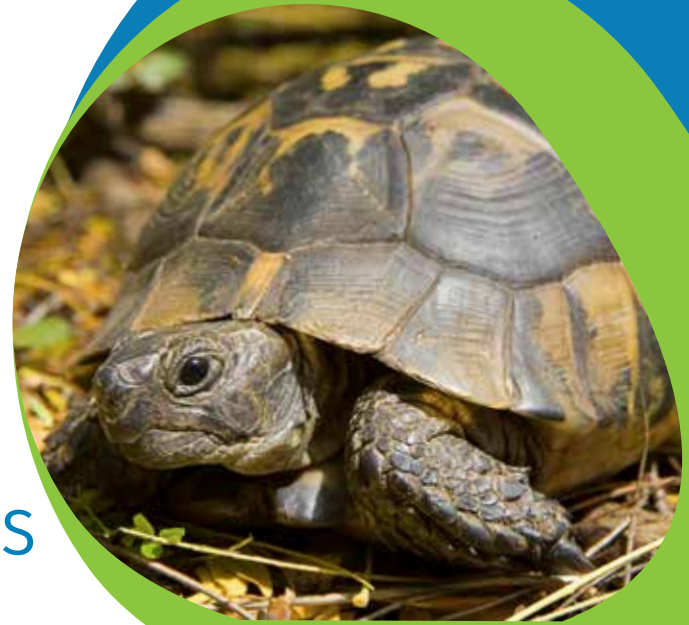
This checklist is focused only on the scientific and technical adequacy of an environmental study. It is not a scoring tool that would result in a 'grade' on the quality of the assessment. Rather it provides guidelines to interested public for offering high quality feedback on environmental studies in order to ensure the content meets good practice standards for environmental decision-making. By replying to a set of questions, readers should be able to conclude which parts, if any, of the environmental study are not up to standards of best

practices and which information may be missing or is under-evaluated. By doing so, reviewers can formulate constructive and credible feedback to share during public consultations.

Compliance with national legal frameworks, international best practices, or any other possible requirements is not considered in this document. Likewise, evaluation of the quality, transparency and inclusiveness of a decision-making process, as embodied in public participation principles and relevant national frameworks and international conventions, are not considered. However, this does not imply that evaluating these aspects are not important and should be disregarded. In fact, proper implementation of both is paramount for good practice environmental decision making, and it is recommended that evaluators of an environmental study also take them into account.



HOW TO USE THIS CHECKLIST



The checklist is based on the European Commission's 'Guidance on EIA: EIS Review' from June 2001, which was reviewed in detail. Considering the audience for this document, non-governmental organizations and the general public, the most pertinent questions were selected to enable a comprehensive check of the quality of an environmental study by non-specialists.

For the purpose of clarity and ease of following an environmental study, this checklist is divided into specific sections dedicated to the most important segments of an environmental study. The importance of these sections is explained under each heading, followed by a set of questions to which qualitative answers are to be provided after the study had been read. Possible answers are:

Not applicable.

This answer is appropriate in cases where questions are specific to one type of development or technology, which is not the topic of the environmental study being evaluated. These questions carry no weight in evaluating the overall quality of the study.

For example, if an environmental study is prepared for the construction of a hydropower plant within the borders of a national park, questions relating to nuclear waste would be 'not applicable' for evaluation.

Fully meets best practices.

This answer indicates that the information that would answer the relevant question is well elaborated, based on appropriate data and other information, and thus can serve as a basis for making development decisions. Such data and information need to be up-to-date, comprehensive, and relevant for the topic of discussion; with official sources properly quoted and any cited background studies available for review.

For example, if an environmental study is prepared for the construction of a hydropower plant within the borders of a national park, reviewers should indicate that questions related to impact on biodiversity fully meet best practices only when the environmental study clearly evaluates impacts on biodiversity of the protected area.

Partially meets best practices.

This answer indicates that there is not enough information or analysis provided in the environmental study to fully answer a particular question; the study does not consider all important data or up-to-date information, so before any development decision can be made these evaluations should be improved.

For example, if an environmental study is prepared for the construction of a hydropower plant within the borders of a national park, if information that would answer questions related to impact on biodiversity only refers to the existence of a protected area without any meaningful consideration of impacts, such questions should be evaluated as 'partially meets best practices'.

Does not meet best practices.

This answer indicates a significant deviation from the purpose of an environmental study, raising serious concerns about the quality of a decision that can be made based on the information presented in the study. It implies that these aspects of the study need to be re-evaluated or improved with more data before a development decision can be made.

For example, if an environmental study is prepared for the construction of a hydropower plant within the borders of a national park and information in the study that would be used to answer questions related to impact on biodiversity does not even include mention of the existence of a protected area, such questions should be evaluated as 'does not meet best practices'.

Before reading an environmental study, evaluators should familiarize themselves with this checklist in order to understand what type of information to look for in the study. While reading the environmental study, answers to each question should be recorded using the qualitative descriptors mentioned above.

It is also recommended to note any impressions, questions or concerns arising from evaluation of each question, to better formulate comments to the study. After answering all questions, synthesized feedback should be developed and delivered to the competent authority during public consultations. Remember that, in addition to enabling critical evaluation of a study, this checklist can help identify positive examples and good practices; include those in feedback as it is equally important to point out aspects of the work that are being undertaken according to good standards and best practices.

DESCRIPTION OF THE PROJECT

Detailed and comprehensive presentation of a planned project is important to be able to adequately assess possible impacts. It is equally important to understand the purpose of the project in order to determine how important it is overall for society, its scale and design, production process(es), and location within the environment. The availability of such comprehensive information will ensure that all requirements of the proposed development are accounted for (land requirements, time horizon, etc.) in decision-making.

1 Is the alignment of the project with relevant strategies, development plans, and regulatory frameworks explained?

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?

3 Are all the main components of the project described and represented graphically on a plan showing the boundary of the development, including any land required temporarily during construction?

4 Are all activities described during (i) construction, (ii) operation and (iii) decommissioning stages (if appropriate), including size, capacity, throughput, input and output?

5 Are all additional services and/or developments required for the project described and, if applicable, quantified, including details of other permits required?

6 Are any developments likely to occur and likely to be altered as a consequence of the project identified?

7 Are any other existing or planned developments with which the project could have cumulative effects identified?

8 Is the area of land occupied by each of the permanent project components, based on project layout, quantified and shown on a scaled map?

9 Is the area of land required temporarily for construction quantified and mapped, and a plan for reinstatement of that land described?

10 Are the size, form and appearance of any structures or other works developed as part of the project described?

11 For projects involving the displacement of people or businesses, are the numbers and other characteristics of those displaced described?

12 Are the types and quantities of outputs produced by the project described based on calculation (and not estimates)?

13 Are the types and quantities of raw materials and energy needed for construction and operation discussed?

14 Are the environmental implications of the sourcing of raw materials discussed?

15 Is employment created or lost as a result of the project during (i) construction, (ii) operation, and (iii) decommissioning (if appropriate) discussed?

16 Are the types and quantities of appropriate residues and emissions (i.e. solid waste, liquid effluents, and gaseous and particulate emissions) generated during (i) construction, (ii) operation and (iii) decommissioning (if appropriate) identified?

17 Are the composition and toxicity or other hazards of all appropriate residues and emissions (i.e. solid wastes, liquid effluents, and gaseous and particulate emissions) produced by the project discussed?

18 Are the methods for collecting, storing, treating, transporting, and finally disposing of all appropriate residues and emissions (i.e. solid wastes, liquid effluents, gaseous and particulate emissions) described?

19 Are the locations for final disposal of all appropriate residues and emissions (i.e. solid wastes, liquid effluents, gaseous and particulate emissions) discussed?

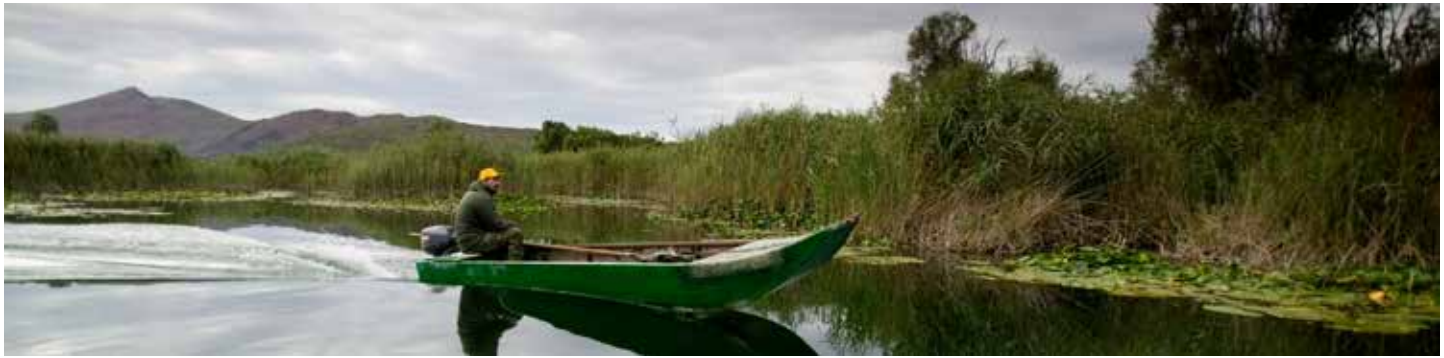
20 Are any sources of noise, heat, light or electromagnetic radiation from the project identified and quantified?

21 Are the methods for estimating the quantities and composition of all residues and emissions identified and any uncertainty attached to estimates of residues and emissions discussed?

22 Are any risks associated with the project discussed, such as risks from handling of hazardous materials, risks from spills, fire, explosion, risks of traffic accidents, risks from breakdown or failure of processes or facilities, and risks from exposure of the project to natural disasters?

23 Are measures to prevent and respond to accidents and abnormal events described?

CONSIDERATION OF ALTERNATIVES



Assessment of alternative development options is essential for sound decision-making processes and central to an effective environmental impact assessment. Consideration of different options to meet the same target will ensure that the more sustainable option is chosen, leading to lower environmental and social risks.

Alternative options include different locations, sizes, technologies, design or operational procedures, as well as a no-action (zero) alternative. The latter does not simply entail presenting baseline/existing situation, but outlining the future situation based on evolution of baseline conditions without the particular proposed development being realized. A proper assessment of alternatives includes their description, presentation of their environmental implications, and explanation of the reasons for their adoption or rejection.

1 Is the baseline environmental situation in the 'no action' situation described?

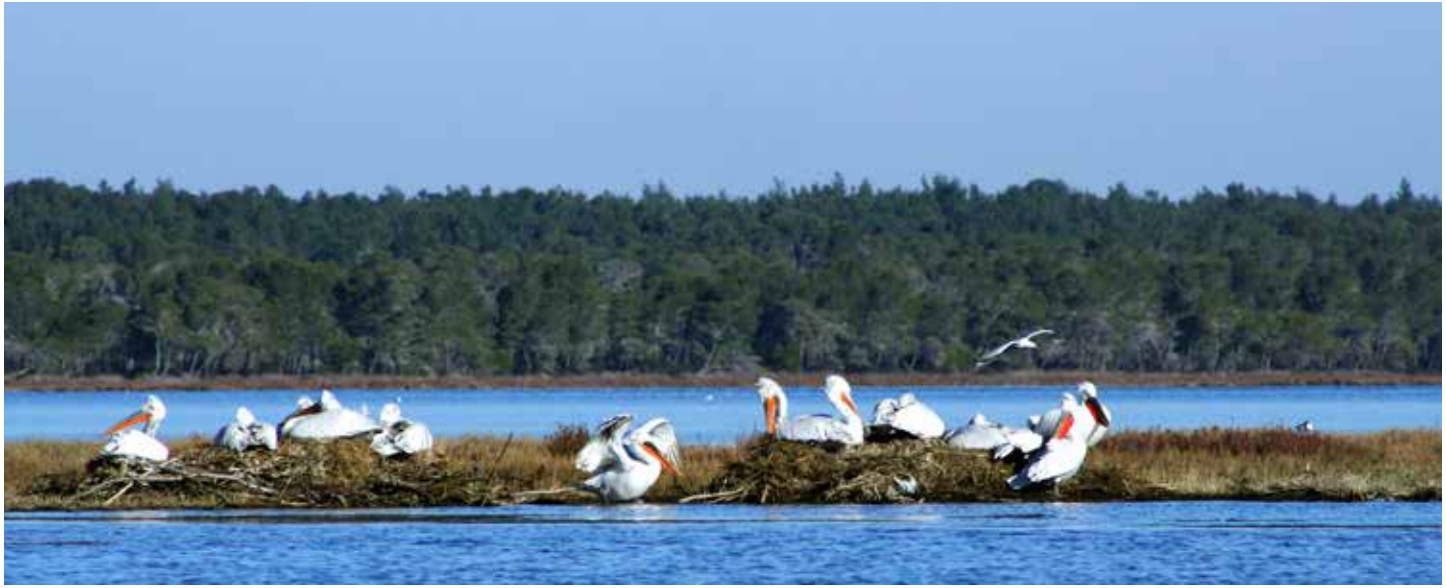
2 Are alternatives considered during the project development described in detail, with their respective environmental effects?

3 Are the considered alternatives and their environmental effects compared to the 'no action' situation and the proposed project?

4 Is the process of project development described, including elaboration of reasons for the chosen project?

DESCRIPTION OF ENVIRONMENT LIKELY TO BE AFFECTED BY THE PROJECT

Appropriate assessment of impacts is possible only if there exists comprehensive and up-to-date analysis of existing conditions in the environment where the proposed development would take place. It is especially important to provide detailed information of existing biodiversity and ecosystems, as this will inform the development of mitigation measures and the overall determination if a proposed development could go ahead. Namely, one goal for undertaking an environmental assessment is to ensure no net loss of biodiversity or irreparable damage to ecosystems. In fact, biodiversity and ecosystems must be conserved to ensure they survive, continuing to provide services, values and benefits for current and future generations.



1 Is the existing land use plan of the area to be occupied by the project and the surrounding area presented? Are the land uses of the area to be occupied by the project and the surrounding area described, including any potential land use conflicts with existing land uses?

2 Are the topography, geology and soils of the land to be occupied by the project and the surrounding area described? Are any significant features of the topography or geology of the area described and are the conditions and use of soils described?

3 Is the water environment of the area described?

4 Are the hydrology, water quality and use of any water resources that may be affected by the project described?

5 Are microclimate and meteorological conditions and existing air quality in the area described?

6 Is the existing situation regarding light, noise, heat and electromagnetic radiation described?

7 Are any material assets in the area that may be affected by the project described?

8 Are locations or features of landscape, townscape, archaeological, historic, architectural or other community or cultural importance in the area that may be negatively affected by project described, including any designated or protected sites, landscapes and important viewpoints?

9 Are demographic, social and socio-economic conditions (e.g. employment) in the area described?

10 Are methods and investigation process undertaken properly disclosed? Have sources of data and information on the existing environment been adequately referenced?

11 Given the environmental information presented and prospective effects of the proposed projects and its alternatives, are there any issues left unclear? Are all the necessary data presented? If there are aspects of the environment that are not adequately described, are there any measures planned to clarify these issues?

DESCRIPTION OF THE LIKELY SIGNIFICANT EFFECTS OF THE PROJECT

Evaluating impacts should be an informed exercise based on good quality data of baseline conditions and the identification of all potentially significant effects of proposed development. Impacts of proposed development on the environment need to be described in as precise terms as possible. Their significance is assessed by asking whether an impact is acceptable in the environmental and social context of a proposed development, including consideration of baseline conditions, alternative development options, direct impacts, and cumulative effects with other existing and planned developments. Criteria and sources of quality standards used in the assessment need to be clearly presented, and the rationale, assumptions and value judgements used in determining significance need to be fully described. In cases when baseline information is poor or there exists uncertainty about impacts, a precautionary approach should be taken when determining significance of impacts.

1 Is the process by which the scope of the environmental study was defined described?

2 Was full consultation carried out during scoping, and are the comments and views fully presented?

3 Are relevant direct, primary effects on land uses, people, and property described, and where appropriate quantified?

4 Are relevant direct, primary effects on geological features and characteristics of soils described, and where appropriate quantified?

5 Are relevant direct, primary effects on fauna, flora, and habitats described, and where appropriate quantified?

6 Are relevant direct, primary effects on the hydrology and water quality of water features described, and where appropriate quantified?

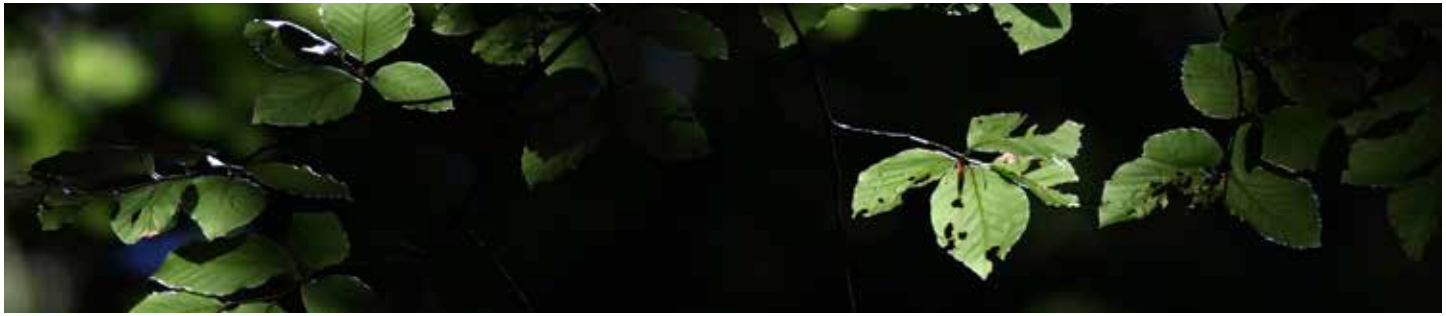
7 Are relevant direct, primary effects on uses of the water environment described, and where appropriate quantified?

8 Are relevant direct, primary effects on air quality and climatic conditions described, and where appropriate quantified?

9 Are relevant direct, primary effects on the acoustic environment (e.g. noise or vibration) described, and where appropriate quantified?

10 Are relevant direct, primary effects on heat, light or electromagnetic radiation described, and where appropriate quantified?

11 Are relevant direct, primary effects on material assets and depletion of non-renewable natural resources (e.g. fossil fuels, minerals) described?



12 Are relevant direct, primary effects on locations or features of cultural importance described?

13 Are relevant direct, primary effects on the quality of the landscape, and on views and viewpoints described, and where appropriate illustrated?

14 Are relevant direct, primary effects on demography, social and socio-economic condition in the area described, and where appropriate quantified?

15 Are secondary effects on any of the above aspects of the environment caused by primary effects on other aspects described, and where appropriate quantified?

16 Are temporary, short term, long term, and permanent effects caused during construction or during time-limited phases of project operation or decommissioning described?

17 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?

18 Are cumulative effects on the environment of the project, together with other existing or planned developments in the locality, described?

19 Are the geographic extent, duration, frequency, reversibility, and probability of occurrence of each effect identified, as appropriate?

20 Are primary and secondary effects on human health and welfare described, and where appropriate quantified, where appropriate?

21 Are impacts on issues such as biodiversity, global climate change, and sustainable development discussed, where appropriate?

22 Is the significance or importance of each predicted effect discussed in terms of its compliance with legal requirements and the number, importance, and sensitivity of people, resources, or other affected?

23 Where effects are evaluated against legal standards or requirements, are appropriate local, national or international standards used and relevant guidance followed?

24 Are methods used to predict effects described, and are the reasons for their choice, any difficulties encountered, and uncertainties in the results discussed?

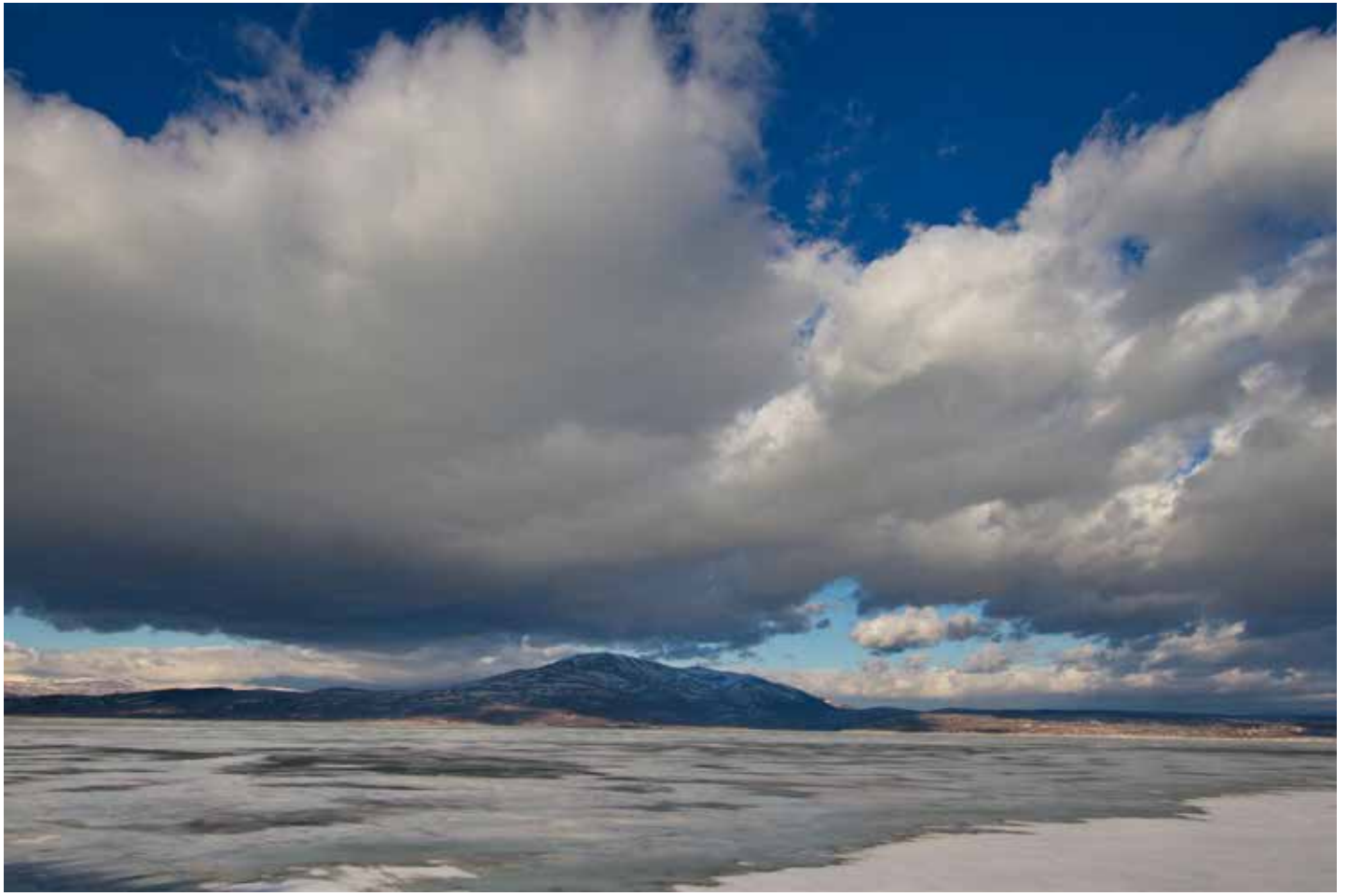
25 Where there is uncertainty about the precise details of the project, or when data is insufficient and its impact on the environment, are worst case predictions described?

26 Is the basis for evaluating the significance or importance of impacts clearly described?

27 Are impacts described on the basis that all proposed mitigation has been implemented, i.e. are residual impacts described?

28 Is the level of treatment of each effect appropriate to its importance for the development of consent decision? Does the discussion focus on the key issues and avoid irrelevant or unnecessary information?

29 Is appropriate emphasis given to the most severe, adverse effects of the project with lesser emphasis given to less significant effects?



DESCRIPTION OF MITIGATION

The purpose of an environmental impact assessment is to anticipate significant environmental and social impacts of a proposed development in order to ensure no net loss of biodiversity or irreparable damages to ecosystems. Thus, mitigation is a key element of a good impact assessment. Properly considered mitigation always follows this hierarchy:

1. Avoiding irreversible loss of biodiversity / damages to ecosystems through consideration of alternatives to proposed development, which may entail completely abandoning the proposed idea
2. Minimizing biodiversity loss / ecosystem damages through seeking alternative solutions, which may entail changing the project completely or re-designing some of its features
3. Mitigating unavoidable impacts through various mitigation measures to restore biodiversity resources and ecosystems
4. Compensating for unavoidable loss by providing substitutes of at least similar biodiversity value.

Mitigation measures are adopted only when it is not possible to avoid impacts through alternative solutions or changes to the proposed development's design. Proposed mitigation measures need to be supported by evidence of their appropriateness and effectiveness, including by demonstrating their success and side-effects in similar cases. The clear commitment of the project developer to implement mitigation and compensation measures must be expressed, ideally with timelines and costs attached.

1 Where there are significant adverse effects on any aspect of the environment is the potential for mitigation of these effects discussed?

2 Are any measures which the developer proposes to implement to mitigate effects clearly described and their effect on the magnitude and significance of impacts clearly explained?

3 Is it clear whether the developer has made a binding commitment to implement the proposed mitigation, or that the mitigation measures are just suggestions or recommendations?

4 Are the developer's reasons for choosing the proposed mitigation explained?

5 Are responsibilities for implementation of mitigation, including funding, clearly defined?

6 Where mitigation of significant adverse effects is not practicable or the developer has chosen not to propose any mitigation are the reasons for this clearly explained?

7 Is it evident that the full range of possible approaches to mitigation, including measures to reduce or avoid impacts, including alternative strategies, locations, methods/ processes, compensation measures, were considered?

8 Is a monitoring plan elaborated in the EIA study?

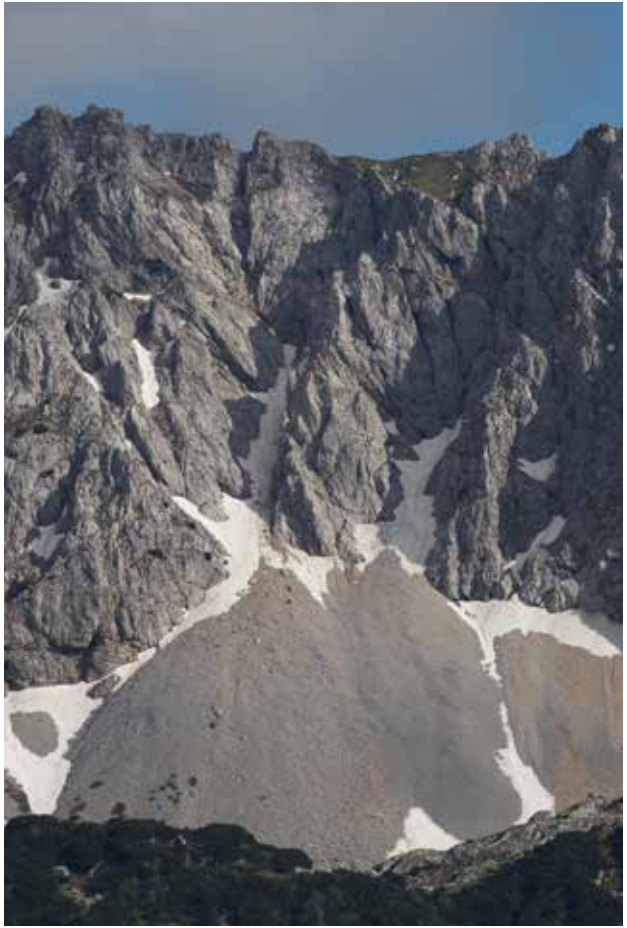
9 Are the indicators for monitoring clearly defined based on the baseline information, the objective, and likely impacts identified by the EIA study?

10 Where monitoring may reveal significant adverse effects, does the EIA study clearly define commitments for actions to be made in response to these adverse effects?

11 Is a plan outlined for how affected stakeholders will be informed of these adverse effects?

12 Does the suggested monitoring scheme include monitoring of likely transboundary impacts?

13 If so, is it clear how the likely affected foreign country will be informed about monitoring results and participate in actions in response to any adverse effects?



HELPFUL RESOURCES

Running an environmental study through the questions in this checklist will show whether the study meets its purpose – to ensure that proposed development does not irreversibly damage the environment and prescribe mitigation measures to alleviate significant unavoidable impacts. The checklist is designed to support non-practitioners in the field of environmental impact assessment to constructively and credibly engage in the decision-making process.

Unfortunately, all the concerns and questions raised by non-governmental organizations and local communities may remain unanswered. Likewise, there may be other inadequacies in the environmental impact assessment process that fall beyond the scope of this checklist, such as the quality of the public participation process, which severely limit access to environmental decision-making. In case this happens, below are several resources that are publically available:

Aarhus Convention

Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters – colloquially known as the Aarhus Convention – grants the public rights and imposes on Contracting Parties and public authorities obligations regarding (i) access to information, (ii) public participation and (iii) access to justice. The Convention links environmental and human rights, as well as government accountability and environmental protection by focusing on interaction between the public and public authorities in a democratic context. Compliance Committee was established to monitor compliance with the Convention's provisions also of individual Parties. Members of the public may make 'communications' concerning a Party's compliance with the Convention.

More about the Aarhus Convention:

http://www.unece.org/env/pp/introduction.html

Details on how to submit a communication concerning compliance, as well as to review past submission:

http://www.unece.org/env/pp/pubcom.html

Espoo Convention

Convention on Environmental Impact Assessment in a Transboundary Context – colloquially known as the Espoo Convention – sets out obligations of Contracting Parties to assess the environmental impact of certain activities at an early stage of planning. It also lays down the general obligation of States to notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact across boundaries. Implementation Committee was established to review compliance by the Parties with their obligations under the Convention. Members of the public and non-governmental organisations may make submissions to the Committee should they have concerns with a Party's compliance with the Convention.

More about the Espoo Convention

http://www.unece.org/env/pp/introduction.html

Details on how to submit a compliance concern, as well as to review past submission:

http://www.unece.org/env/eia/implementation/implementation_committee.html

Bern Convention

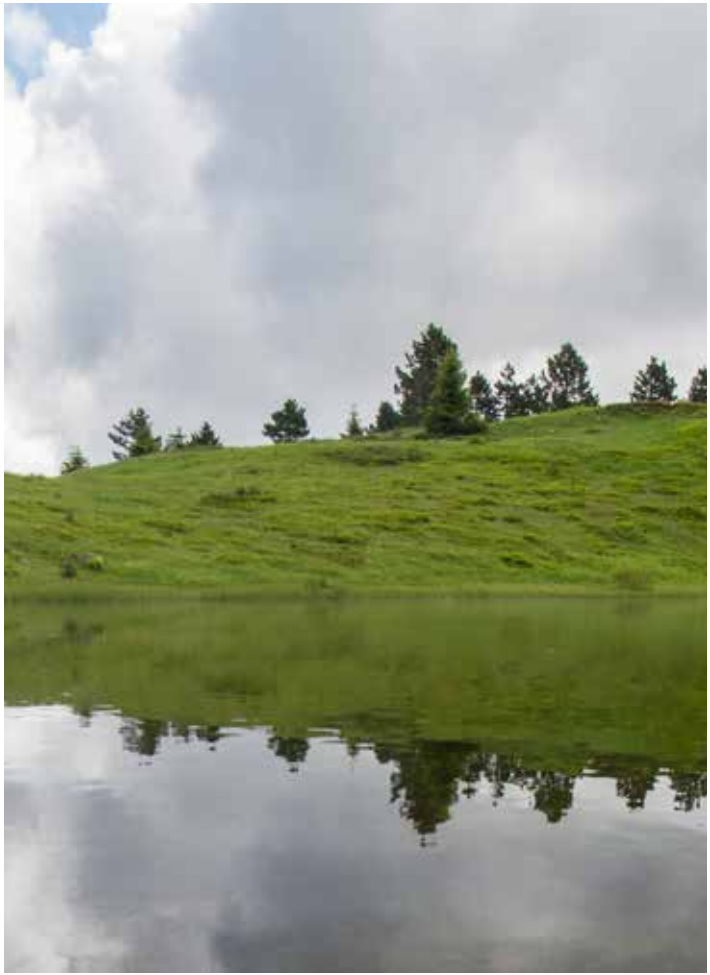
Convention on the Conservation of European Wildlife and Natural Habitats – colloquially known as the Bern Convention – is a binding international legal instrument in the field of nature conservation, which covers the whole of the natural heritage of the European continent. The Convention aims to ensure conservation of wild flora and fauna species and their habitats, with special attention given to endangered and vulnerable species. Thus, the Contracting Parties undertake to take all appropriate measures to ensure the conservation of the habitats of the wild flora and fauna species, including during development decisions. The monitoring mechanism known as the case file system was set up to enable NGOs, scientific community and private citizens to submit complaints for possible breaches of the Convention.

More about the Bern Convention

https://www.coe.int/en/web/bern-convention

Details on how to submit a compliance concern, as well as to review past case-files:

https://www.coe.int/en/web/bern-convention/monitoring

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