

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

The environmental and Social Impact Assessment (ESIA) is an iterative process performed from the conceptual design stage of a project and continues throughout project's construction, operation, and decommissioning. Its objective is to identify positive and negative impacts caused by the project through an analysis of interactions between environmental and social components and the cost of their implementation (CSI, 2016).

The scope of the ESIA varies depending on each project and involves relevant stakeholders to examine project risks, set priorities, and determine the type of assessments required (IUCN, 2020). In this way, the type and scale of potential impacts can be identified and evaluated as well as the direct and indirect benefits associated with the projects.

Therefore, an ESIA is a crucial tool for integrating environmental and social issues, promoting public participation and improving governance schemes around the implementation of a project (Partidário, 2012). The basic principles of an ESIA are to search for potential impacts on the environment and local communities as a result of the proposed changes and to ensure that the design, implementation, operation and closure of the project are carried out with minimal adverse impacts and maximising environmental and social benefits (CSI, 2016).

The elements of an ESIA are (IFC, 2015):

- **Selection** - Analyse the project at a general level to determine if a full ESIA is necessary, it helps to identify and understand the possible impacts.
- **Scope** - Determine which impacts are likely to be significant and would be the focal point of the ESIA. It also identifies the scarcity or availability of data, consultations with government entities, organisations and local communities.
- **Baseline** - Provide a baseline for evaluating future changes associated with project implementation, in order to have more information to follow-up. Detailed maps are used to allow a complete image of the area and the most relevant elements.
- **Impact prediction and evaluation** - Analyse identified impacts to determine their nature, temporal and spatial scale, reversibility, magnitude, probability, scope and effect. It requires professional judgment and expert contributions, which is why it is a subjective process. Additionally, interested parties should be consulted as an essential step.
- **Mitigation** - Eliminate or reduce identified negative impacts.
- **Consultation of alternatives** - Compare the possible alternatives looking for those with less impact, which allows achieving the objective for which the project was designed.
- **Social and Environmental Management Plan** - Define resources, roles and responsibilities necessary to manage project's impacts. It includes a prioritised

description of activities planned to mitigate the impacts and a schedule for compliance with the management plan, including monitoring strategies and plans.

- **Environmental Impact Statement** - It is the physical report on the process and findings of the ESIA written clearly for any audience. It is often the basis for public consultation and is presented to regulatory authorities.

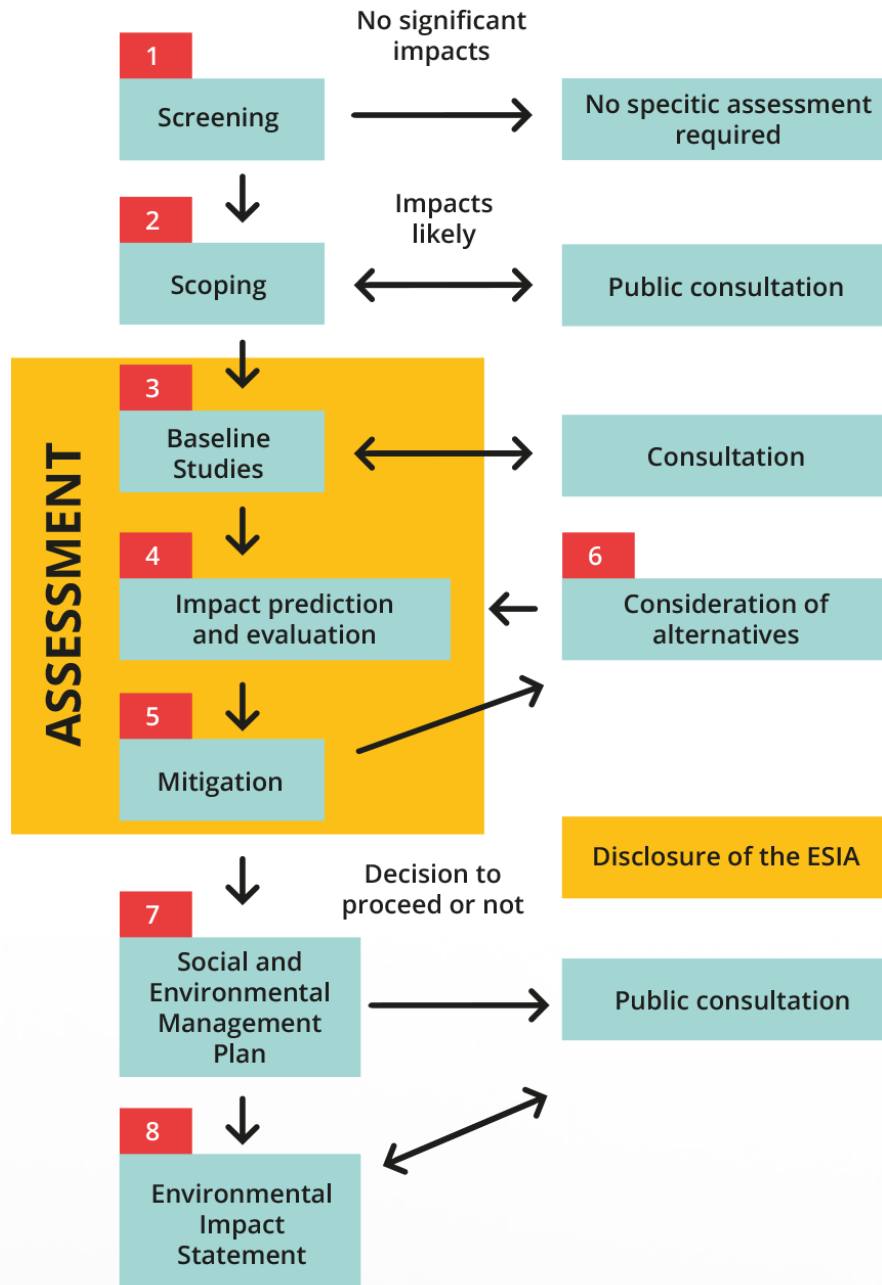


Image modified from "The Social and Environmental Impact Assessment Process" (IFC, 2015).



EXAMPLE

An example, in the context of CCUS in Mexico was the Environmental and Social Impact Assessment (ESIA) carried out as part of the necessary studies during the planning and design stage of pilot projects that were expected to be implemented in 2018.

[Evaluation of environmental and social impacts: CO₂ capture pilot project in the Poza Rica CCC, Veracruz.](#)

References

CSI (2016) 'Guidelines for Environmental & Social Assessment'. Cement Sustainability Initiative & wbcSD, p. 108.

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www.ifc.org/BiodiversityGuide<http://www.biodiversityscience.org/xp/CABS/research/rap/aboutrap.xml>.

IUCN (2020) 'Environmental and Social Impact Assessment (ESIA)', (March), pp. 1–7.

Partidário, M. (2012). What is Impact Assessment? IAIA Publications, 1–4.

<http://www.cbd.int/impact/whatis.shtml>