



Netherlands Commission for
Environmental Assessment

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Environmental and Social Assessment as a way to (re)consider the production of **Green Hydrogen**



Weighing the claim of net zero production



*Related to these
and other SDGs*

Our world is looking for ways to store energy. Hydrogen is able to do that and is everywhere around us, but needs to be produced to make it available. Unlike traditional hydrogen production, green hydrogen solely makes use of clean energy sources and therefore claims to be net zero. Still, production is associated with many dilemmas, such as the large amounts of freshwater it requires. Desalination, necessary in dry areas, often results in pollution, and storage and transportation of the highly flammable product pose serious safety risks. Environmental and social impact assessment helps decisionmakers to take these and other consequences into account.

About environmental and social assessment

Environmental and social assessment is legally adopted in most countries in the world. It is applied at two levels of decision-making: at strategic level and at project level.

Strategic Environmental Assessment (SEA):

Decision-making on plans, policies or programmes, such as sector guidelines for solar and wind farms.

Environmental and Social Impact Assessment (ESIA):

Decision-making on projects, such as a new power plant or a harbor expansion.

SEA & ESIA **assess the compatability** of a proposed project / plan with (inter)national policies and agreements.

Authority: "Are these plans aligned with our national biodiversity strategy? Should we produce green hydrogen for export or use it for boosting our own industry?"

Investor: "How to make storage and transportation safe and secure?"

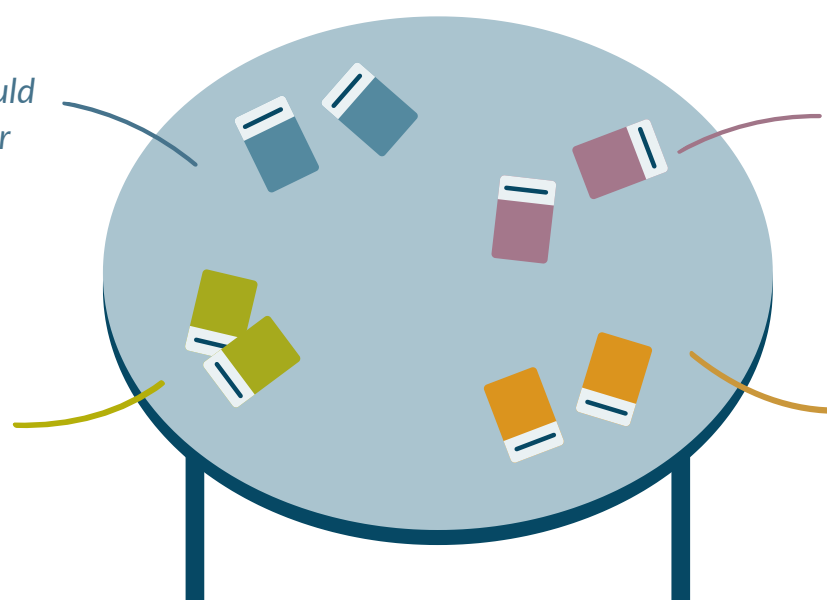
SEA & ESIA contribute to **accountability and transparency** which enhances credibility and trust, and prevents conflict.

SEA & ESIA provide a roadmap for **informing and involving stakeholders**, including specific groups.

Community member:
"My community is concerned about waste water and how this might affect the fish."

Developer: "Where to best locate the various solar and wind farms?"

SEA & ESIA offer **alternative development pathways**. All alternatives are compared and judged by their effect on environment and society.



Expertise Independency Transparency

Since 1993, the Netherlands Commission for Environmental Assessment advises and supports governments and institutions around the world to assess environmental and social impacts for well-informed, integrated, and supported decision-making. Activities include independent advice, process support, capacity strengthening, and system analysis. The NCEA follows national legislation and apply international good practice.



Examples of recent activities of the NCEA related to green hydrogen

Egypt - Participation in a business visit of the Netherlands Ministry of Economic Affairs and Climate Policy and presentation about impacts of Green Hydrogen

Morocco - Workshop in cooperation with the Ministry of Energy Transition and Sustainable Development and the Netherlands Embassy on the added value and application of SEA in the green hydrogen sector.

Mauritania - Review of the Terms of Reference for the Environmental and Social Impact Assessment of the 'AMAN' green hydrogen project, at the request of the 'Direction de l'Evaluation et du Contrôle Environnementale'

More information and activities



What does the NCEA look for in an environmental and social assessment process?

Quality of information

Does the process deliver all information needed for decision making, such as impacts, alternative options, mitigation measures and impact management measures?

Dialogue

Does the process engage affected stakeholders in a timely, transparent and inclusive way?

Influence

Does the process address relevant issues and provide usable information for decision makers? Is this done at the right time? Can decision makers be held accountable for their use of the assessment outcomes?

All NCEA advisory reports are available at www.eia.nl



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