

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.

For plans and projects

Environmental and social assessment is legally adopted by almost all countries around the world. Ideally, it is performed at two levels of decision making: the strategic level and the 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.

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

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

Authority

My community is concerned about waste water and how this might affect the fish.

Community member

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

Developer

Where to best locate the various solar and wind farms?

How to make storage and transportation safe and secure?

Investor

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

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



Expertise Independency Transparency

The Netherlands Commission for Environmental Assessment has more than 30 years of experience in supporting governmental organisations in the Netherlands and abroad with SEA and ESIA. Our expertise includes: independent advice at the request of governments, coaching, capacity building and knowledge & learning activities. We follow national legislation and apply international good practice.



Examples of recent activities of the NCEA

June 2024- Participation in a business visit of the Netherlands Ministry of Economic Affairs and Climate Policy and presentation about impacts of Green Hydrogen > [Egypt](#)

June 2024 - Independent review of a scoping advice for the reuse of existing natural gas pipelines in the in the north-east as part of a future national hydrogen network > [The Netherlands](#)

December 2023 - 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' > [Mauritania](#)

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

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?

Contact us



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