

STRATEGIC ENVIRONMENTAL ASSESSMENT

for the proposed Boegoebaai Port, Special Economic Zone, and Namakwa Region

BACKGROUND INFORMATION DOCUMENT (BID)



TRANSNET





*national ports
authority*




*Prepared by CSIR
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Purpose of this document

This Background Information Document (BID) provides you - as a potential stakeholder  - with background information regarding the Strategic Environmental Assessment (SEA) for the proposed Boegoebaai Port, Special Economic Zone (SEZ) , and Namakwa Region. This document also explains how you can participate in the project, receive information, or share your opinion.

What is a Strategic Environmental Assessment (SEA?)



An SEA is a knowledge-policy tool used to guide sustainability  planning at different spatial scales. It assesses the opportunities and risks of proposed development programmes and policies using various approaches, methods, and processes.

A good-quality SEA is:

- Focused on sustainability
- Collaboratively created by users
- Interdisciplinary  and transdisciplinary 
- Scientifically credible
- Useful for decision-making

An SEA is not:

- A mega Environmental Impact Assessment (EIA)
- A public relations exercise
- A rubber stamp

 The definitions of words and terms marked with a “” are defined in the inset on the right. Refer to the reference section for more information on each definition.

Useful Definitions



Cumulative Impacts¹

The total impact that a series of developments, either present, past or future, will have on the environment within a specific region over a particular period of time.

Green Hydrogen²

Hydrogen (H₂) produced by splitting through an industrial chemical process that splits water (H₂O) into hydrogen and oxygen using renewable energy (e.g., wind and solar energy). “Green” thus refers to the “green” renewable electricity that drives the industrial processes.

Interdisciplinary³

Integration of multiple disciplines to address complex problems and questions.

Special Economic Zone (SEZ)⁴

A geographically designated area that is set aside for specifically targeted economic activities, supported through special arrangements (that may include laws) and systems. Examples include the Saldanha Bay Industrial Development Zone (IDZ) in the Western Cape and the Dube TradePort in KwaZulu-Natal.

Stakeholder⁵

Any person, group of persons, or organisation whose interests may be positively or negatively affected by a proposal or activity and/or who are concerned with a proposal or activity and its consequences. Stakeholders also include the proponent, authorities (government entities), and all interested and affected parties (I&APs).

Strategic Management Actions⁶

Adaptive management recommendations to guide development planning and implementation towards enhancing positive impacts and reducing negative impacts.


Sustainability⁷

A process that ensures the persistence of natural and human systems in a fair manner.

Transdisciplinary⁸

Integration of knowledge across disciplines and perspectives, including those from non-academic stakeholders, to address specific complex societal problems.

Background

Green hydrogen  has the potential to lower carbon emissions and fight climate change, as well as create much-needed job opportunities, skills, and revenue. Therefore, major infrastructure projects are proposed in the Northern Cape as part of South Africa's ambition to position itself as a key player in the global green hydrogen market. The proposed infrastructure will consist of three components:

- 1** A new breakwater port roughly 20 km south of Alexander Bay at a landmark called the Buchu/ Boegoeberg Twins. The area is referred to as “Boegoebaai”.
- 2** A mixed-use SEZ located next to the proposed Boegoebaai port.
- 3** Renewable energy facilities (wind and solar farms) and transmission infrastructure.

The South African National Energy Development Institute (SANEDI), Northern Cape Economic Development Agency (NCEDA), and Transnet National Ports Authority (TNPA) have joined forces to initiate an SEA. The Council for Scientific and Industrial Research (CSIR) has been appointed to undertake the SEA.

The need for an SEA

Large-scale green hydrogen production will have many direct and indirect impacts, both positive and negative. All three programme components, including their interconnected transport routes, will require large areas of land surface and resource intensive inputs. Although the region is sparsely populated, it is ecologically sensitive with many existing - and potentially competing - land uses, such as conservation, agriculture, fishing, tourism, mining, and other subsistence livelihoods.

It is important to note that the SEA process is undertaken at a strategic-level and will not replace or reduce the requirements for project-level EIAs which need to be undertaken in the future. The SEA is thus undertaken in support of proposed development programme that would potentially constitute numerous projects that would each require Environmental Authorisation to proceed.

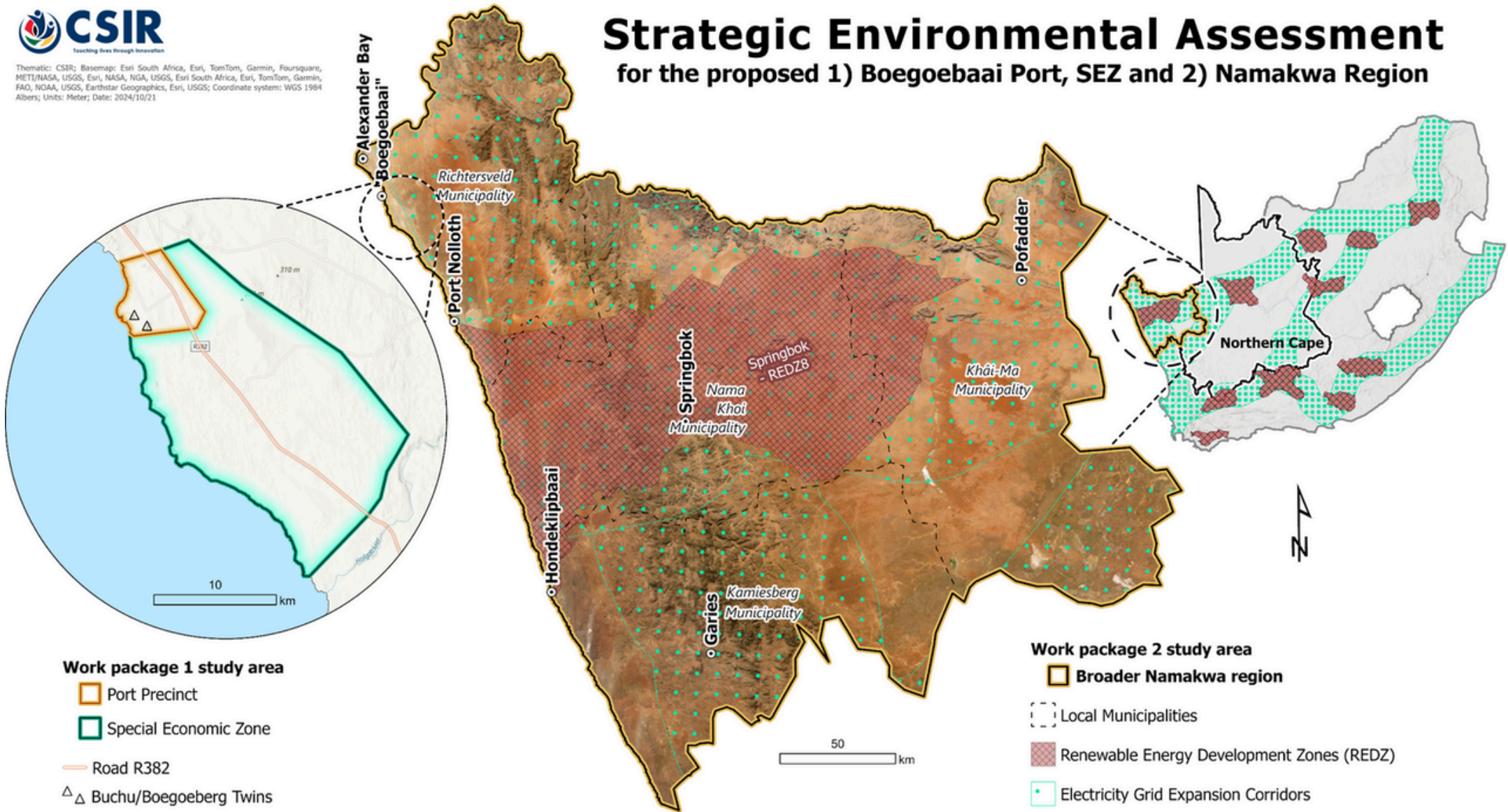


SEA Study Site



Thematic: CSIR; Basemap: Esri South Africa, Esri, TomTom, Garmin, Foursquare, METI/NASA, USGS, Esri, NASA, NGA, USGS, Esri South Africa, Esri, TomTom, Garmin, FAO, NOAA, USGS, Earthstar Geographics, Esri, USGS; Coordinate system: WGS 1984 Albers; Units: Meter; Date: 2024/10/21

Strategic Environmental Assessment for the proposed 1) Boegoebaai Port, SEZ and 2) Namakwa Region



What is the purpose of this SEA?

To develop an integrated decision-making framework to guide the planning of the proposed Boegoebaai Port, Special Economic Zone (SEZ), and wider Namakwa region in a sustainable manner.

In other words, the purpose of this SEA is to create a structured and inclusive foundation for decision-making to ensure that the proposed Boegoebaai Port, SEZ, and wider Namakwa region is planned in a way that balances economic growth, environmental protection, and community benefits.

What are the objectives of this SEA?

- 1 Assess the social and ecological sensitivity of local and regional receiving environments.
- 2 Classify spatial regions as being more, or less, suitable for future development.
- 3 Identify strategic-level constraints, opportunities, cumulative impacts 🔍, and strategic management actions 🔍.
- 4 Provide an integrated decision-making framework and suite of tools to guide project developers, practitioners, and policymakers.








Scope / Outputs of this SEA

Work Package 1 Boegoebaai Port and SEZ SEA: Local-scale SEA report concerned with assessing the sensitivities of the receiving environment around the proposed port and SEZ.

Work Package 2 Namakwa Region SEA: Regional-scale SEA report covering the main sustainability issues associated with an expansive Northern Cape Green Hydrogen economy covering parts of the Namakwa District (namely, the Richtersveld, Nama Khoi, Kamiesberg and Khâi Ma Local Municipalities).

Work Package 1

Boegoebaai Port and SEZ SEA

-  Marine Ecology & Biodiversity
-  Terrestrial Ecology & Biodiversity
-  Birds & Bats
-  Heritage
-  Surface and Groundwater
-  Sustainable Port Planning
-  Coastal Livelihoods

Work Package 2

Namakwa Region SEA

-  Terrestrial Ecology and Conservation Planning
-  Regional Planning, incl. human movement & infrastructure
-  Socio-economics

This is a provisional list of issues and will be updated during the SEA.



Project Governance and Stakeholder Engagement

A stakeholder engagement strategy has been developed to integrate stakeholders' views and perspectives during the SEA process. The strategy consists of the following groups and tools:

- Project Steering Committee consisting of the SEA partners (SANEDI, NCEDA and TNPA) and CSIR concerned with the delivery of the Work Package.
- Working Group consisting of various experts and organisations with an interest the Northern Cape, its social-ecological system, and future development prospects.
- Independent expert teams who are appointed to contribute expertise to the SEA.
- Comment windows during which the public can engage with and provide input to the SEA outputs.
- Public briefings where SEA draft findings will be presented.
- Website which hosts information and project outputs, made accessible to anyone.

How can I get involved?

Stakeholder engagement is a key component of the SEA. Any individual, business, organisation, or government entity potentially impacted by a proposal / activity can register as a stakeholder.

To register as a stakeholder, please complete the online registration form available through the website link, or reach out to us using the contact information provided below:



<https://www.csir.co.za/boegoebaai-port>



ems@csir.co.za



Attention: CSIR Environmental Management Services,
P.O. Box 320, Stellenbosch, 7600



References

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- ² What is green hydrogen and why do we need it? an expert explains (no date) World Economic Forum. Available at: <https://www.weforum.org/agenda/2021/12/what-is-green-hydrogen-expert-explains-benefits/#:~:text=Green%20hydrogen%20is%20defined%20as,and%20oxygen%20using%20renewable%20electricity.>
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- ⁶ DEA (2014) Environmental Impact Assessment and Management Strategy. Department of Environmental Affairs (DEA). Available at: <https://cer.org.za/wp-content/uploads/2016/10/ENVIRONMENTAL-IMPACT-ASSESSMENT-AND-MANAGEMENT-STRATEGY-1.pdf>
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- ⁸ Lawrence, M.G., Williams, S., Nanz, P. and Renn, O., 2022. Characteristics, potentials, and challenges of transdisciplinary research. One Earth, 5(1), pp.44-61. Available at: <https://www.sciencedirect.com/science/article/pii/S2590332221007284>