



NATIONAL COASTAL AND MARINE SPATIAL BIODIVERSITY PLAN

Technical Summary

South Africa's first **National Coastal and Marine Spatial Biodiversity Plan (NCMSBP)** has been developed to ensure that the country's **wealth of coastal and marine biodiversity assets** and **ecological infrastructure** are effectively managed and conserved for the **benefit of South Africans and the national economy**. The NCMSBP comprises South Africa's first National Coastal and Marine Map of Critical Biodiversity Areas and Ecological Support Areas (CBA Map) and a set of sea-use guidelines.

The **CBA Map** identifies the **portfolio of marine biodiversity priority areas that needs to be secured** for the long term in support of sustainable development. There are four map categories: Marine Protected Areas; Critical Biodiversity Areas (Natural); Critical Biodiversity Areas (Restore); and Ecological Support Areas. Each map category has a broad management objective for its desired state. The **sea-use guidelines** indicate the **compatibility of sea-use activities with those management objectives**, in turn guiding management recommendations for sea-use activities in the different map categories.

The NCMSBP forms the basis of the **biodiversity sector's input into a range of policy, planning and implementation processes**, such as multi-sectoral Marine Spatial Planning, integrated coastal management, environmental impact assessments, restoration initiatives, and formal protection of the ocean.

What is the National Coastal and Marine Spatial Biodiversity Plan?

The National Coastal and Marine Spatial Biodiversity Plan is a spatial plan for South Africa's coastal and marine environment that is intended to **inform planning and decision-making in support of sustainable development**. It comprises a **Map of Critical Biodiversity Areas and Ecological Support Areas (CBA Map)** and a set of associated **sea-use guidelines**. The CBA Map comprises a portfolio of biodiversity priority areas that are important for conserving a representative sample of **ecosystem types** and **species**, for maintaining **ecological processes** and **ecological infrastructure**, and for providing **ecosystem services**. The sea-use guidelines indicate the **compatibility of sea-use activities** with each category of biodiversity priority areas, guiding recommendations for management so that the broad **management objective** for each area can be maintained.



Goal and objectives of the National Coastal and Marine Spatial Biodiversity Plan

The **overall goal** of the National Coastal and Marine Spatial Biodiversity Plan is to provide the best available science to support biodiversity conservation and sustainable development in South Africa's marine environment, for the benefit of current and future generations. The **key objectives** are to:



Provide a robust, systematic spatial biodiversity prioritisation that follows national and international best practice in systematic biodiversity planning



Adequately represent biodiversity patterns and ecological processes in a design that is spatially efficient and well connected



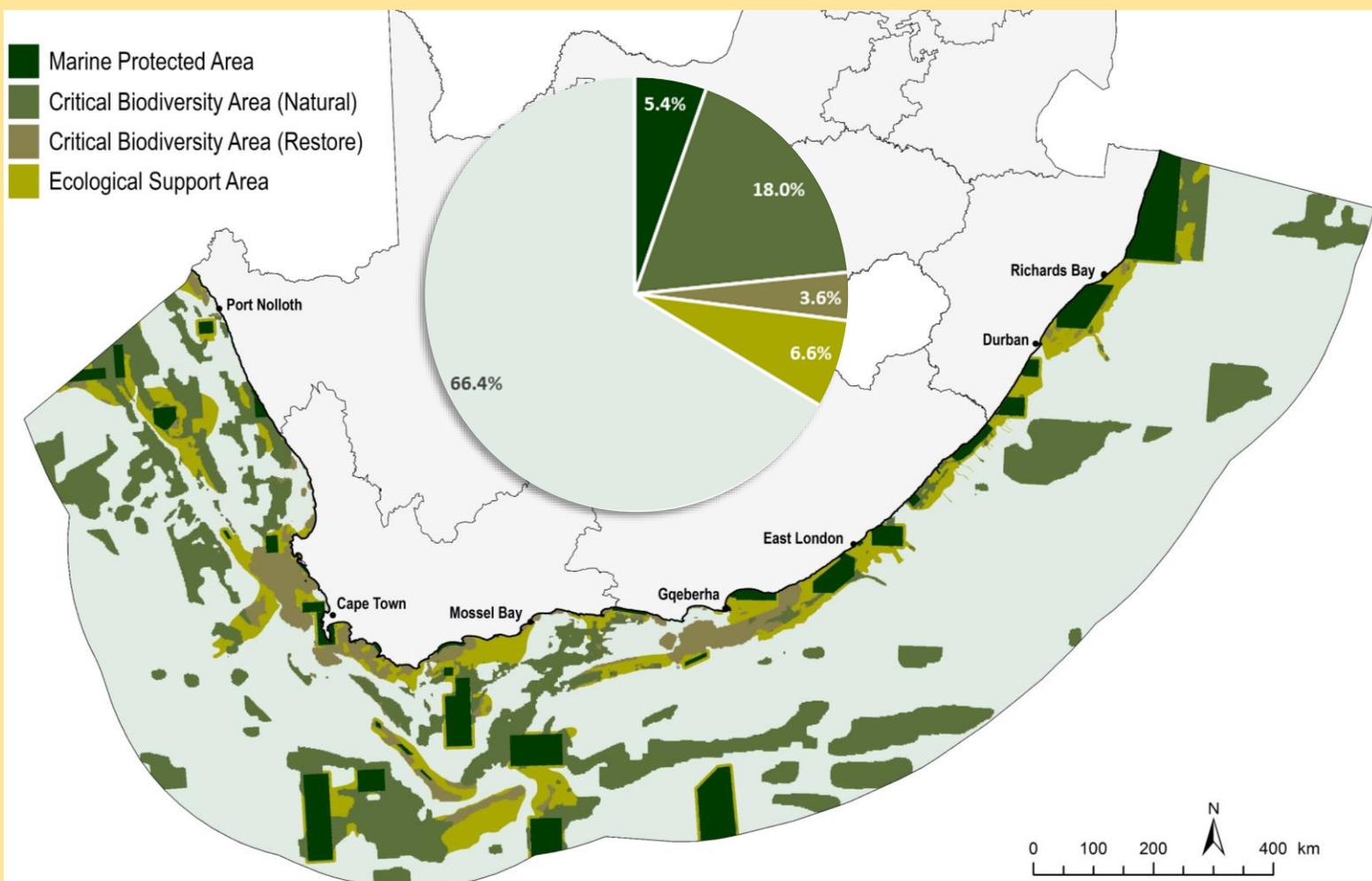
Avoid spatial overlap (conflict) with other sectors where possible, but still meet targets for all biodiversity features



Provide the basis for the biodiversity sector's input to the emerging MSP process



Provide a robust starting point to support other area-based processes, such as MPA expansion





How was the CBA Map developed?

The CBA Map was developed following **national and international best practice in systematic biodiversity planning**. The most comprehensive collection of coastal and marine data compiled to date for the country were included in the spatial prioritisation analysis. This included **data for almost 1000 biodiversity features and design elements**, and data to **minimize conflict** with 19 other sectors, and **guide avoidance of cumulative impacts** from 31 pressures on marine biodiversity. **Targets** for representing each biodiversity feature (e.g., species distributions) and design element (e.g., culturally important areas) were set using **heuristic principles**, informed by a literature review. Systematic biodiversity planning was done using **Marxan**, and the selected priority areas were translated into the CBA Map categories.

The sea-use guidelines enhance the use of the CBA Map in a range of planning and decision-making processes

The sea-use guidelines enhance the use of the CBA Map in a range of planning and decision-making processes, including **Marine Spatial Planning (MSP)**, **Integrated Coastal Management (ICM)**, and **Environmental Impact Assessments (EIAs)**. They were developed by assessing the **compatibility of each sea-use activity with the management objectives of each CBA Map category**. The compatibility assessment was based on the two attributes that are considered in the IUCN Red List of Ecosystems Criterion C3 (degradation from a reference condition of natural): **extent and severity of impacts**.

Extent of impact: does the activity cause impacts to coastal and marine biodiversity at a local or broad scale

Severity of impact: does the activity cause low or no impacts to coastal and marine biodiversity, or moderate, severe or very severe impacts

Depending on the answers to the above questions, activities are evaluated as **compatible, not compatible** or as having **restricted compatibility** with the management objectives of the CBA Map categories.

CBA Map Category	Description	Management objective	Examples of compatible activities
Marine Protected Areas	Areas that are formally protected in terms of the National Environmental Management: Protected Areas Act (No. 57 of 2003). They provide formal protection to a representative portion of coastal and marine biodiversity features to support their long-term persistence.	As per the gazetted purpose and objectives in Protected Area Management Plans.	Ecotourism, beach recreation, protection of sites of heritage importance and seascape value, fisheries resource protection.
Critical Biodiversity Areas (Natural)	CBAs that are in a natural ecological condition. Together with MPAs, CBAs are required to meet biodiversity targets so that a representative sample of coastal and marine biodiversity can persist into the future.	Maintain in natural or near-natural ecological condition.	Ecotourism, beach recreation, protection of sites of heritage importance and seascape value, fisheries resource protection. Some fisheries and other non-destructive activities have restricted compatibility.
Critical Biodiversity Areas (Restore)	CBAs that are no longer in a natural ecological condition and that should be restored. Together with MPAs, CBAs are required to meet biodiversity targets so that a representative sample of coastal and marine biodiversity can persist into the future.	Improve ecological condition and, in the long term, restore to a natural/near-natural state, or as near to that as possible. As a minimum, avoid further deterioration in ecological condition and maintain options for future restoration.	Ecotourism, beach recreation, protection of sites of heritage importance and seascape value, fisheries resource protection. Some fisheries and other non-destructive activities have restricted compatibility.
Ecological Support Areas	ESAs are often highly used areas that can be heavily impacted, but are still important for marine biodiversity patterns, ecological processes, and ecosystem services. ESAs play a supporting role to CBAs and MPAs.	Avoid further deterioration in ecological condition.	All sea-based activities are either compatible (e.g., cultural and recreational activities, most fisheries) or have restricted compatibility (e.g., trawling, linefishing, mining).

976
biodiversity features
and design elements

minimized
conflict with
19 sectors

biodiversity
priorities
comprise
33%
of the EEZ

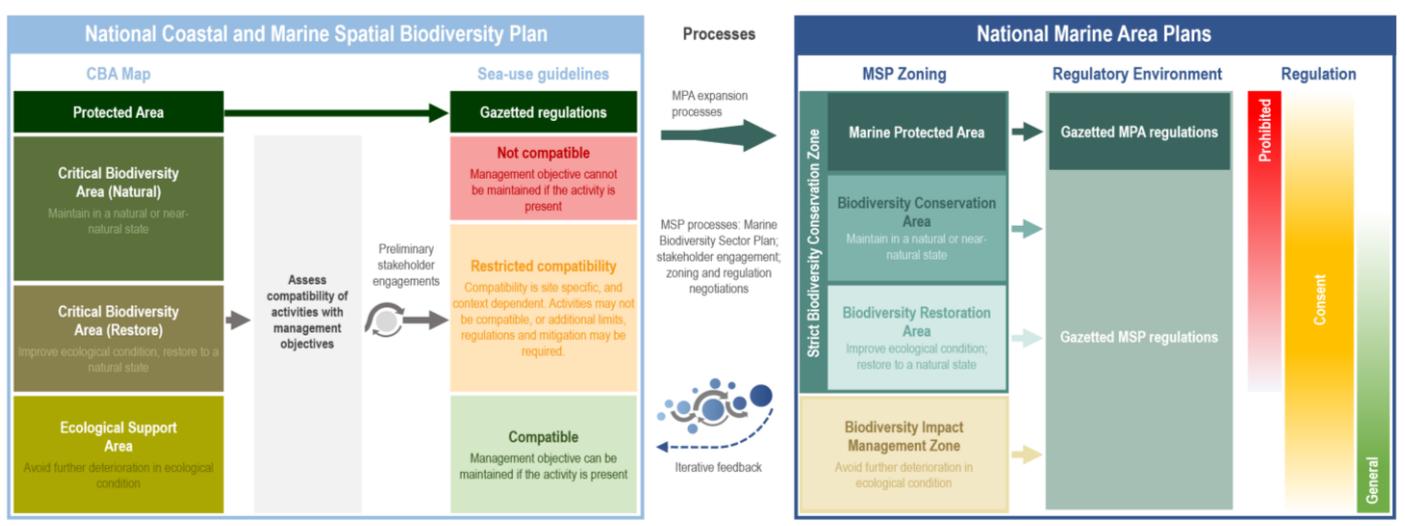
avoided
degradation from
31 pressures
as much as possible

Some applications of the National Coastal and Marine Spatial Biodiversity Plan

The National Protected Area Expansion Strategy 2016 sets out South Africa’s aim to increase the Marine Protected Area estate to 10% of the Exclusive Economic Zone. The National Coastal and Marine CBA Map provides a **key input to the process of identifying areas for expanding the Marine Protected Area (MPA) network**, although it is not intended to be used directly as a map of priorities for protected area expansion – such prioritisation would need to consider a range of other factors and requirements and would require additional stakeholder engagement.

The National Coastal and Marine CBA Map can be used to **inform the environmental authorisation process under the National Environmental Management Act**. For example, it can be used during Environmental Impact Assessments as part of assessing the likely biodiversity impacts of a proposed development. Developments that may compromise the management objectives of the CBA Map categories can then be subject to mitigation measures.

The National Coastal and Marine CBA Map and sea-use guidelines provide the **basis for the biodiversity sector’s input into the multi-sectoral Marine Spatial Planning (MSP) process** that is undertaken according to the Marine Spatial Planning Act. The CBA Map categories inform the biodiversity-related zones in the Marine Area Plans developed through MSP, and the sea-use guidelines inform the management regulations for those zones. Marine Protected Areas are managed according to their gazetted regulations. The MSP process includes intensive stakeholder engagement and negotiations with all sea-use sectors.



For more information:

Harris, L.R., Holness, S.D., Kirkman, S.P., Sink, K.J., Majiedt, P., Driver, A., 2022. [A robust, systematic approach for developing the biodiversity sector’s input for multi-sector Marine Spatial Planning](#). Ocean and Coastal Management 230, 106368.

Harris, L.R., Holness, S.D., Kirkman, S.P., Sink, K.J., Majiedt, P., Driver, A., 2022. National Coastal and Marine Spatial Biodiversity Plan Version 1.2 (Released: 12-04-2022). Nelson Mandela University, Department of Forestry, Fisheries and the Environment, and South African National Biodiversity Institute, South Africa.

Citation: DFFE, SANBI & NMU, 2022. National Coastal and Marine Spatial Biodiversity Plan: Technical Summary. Department of Forestry, Fisheries and the Environment, South African National Biodiversity Institute, and Nelson Mandela University, South Africa.