SANBI
Biodiversity for Life
South African National Biodiversity Institute

What is a CBA Map?

Map of Critical Biodiversity Areas and Ecological Support Areas

CBA Maps are spatial plans for conserving biodiversity and maintaining a well-functioning landscape or seascape. They show priority areas for conserving ecosystems and species, and maintaining ecological functioning. CBA Maps are developed using scientific methods that combine a wide range of biodiversity data into one map that shows the most important places for biodiversity. The maps are accompanied by guidelines that show the desired management objective for each map category and what land-uses or sea-uses are compatible with that objective. The maps are useful to guide spatial planning, and to make decisions about sustainable development across different sectors. Using CBA Maps will help to conserve South Africa's biodiversity heritage and safeguard the benefits that people get from nature.

How is a CBA Map developed?

CBA Maps are developed using an approach known as **systematic biodiversity planning**. This approach sets biodiversity targets that are needed to conserve a sample of all the ecosystem types and species that are found in the country. CBA Maps are based on best available science, combining a whole range of data about biodiversity and ecological processes. The portfolio of priority areas is designed to be spatially efficient, by finding areas that meet more than one biodiversity target at the same time. Systematic biodiversity planning also avoids other land-uses or sea-uses wherever possible.

CBA Maps are available for all provinces across the whole mainland of South Africa, as well as for the mainland marine territories. CBA Maps are usually updated every five years to take into account changes in the landscape or seascape. The South African National Biodiversity Institute (SANBI) has provided guidance to help ensure CBA Maps are developed consistently across the country. The strong community of practice for biodiversity planning means that South Africa has become a global leader in this field.

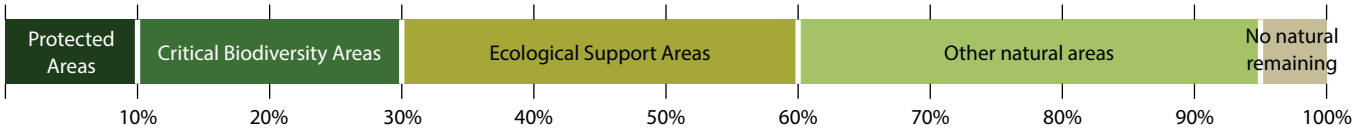
What do the map categories mean?

CBA Maps are divided into different categories, including Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs). The categories have different management objectives. Most simply, CBAs should remain in a natural or near-natural condition, while ESAs should be kept in a condition that allows for their ecological functioning to be maintained. All CBA Maps come with land-use or sea-use guidelines. The guidelines give details about which uses and activities are appropriate in each map category.

CBA Map category	Definition
Protected Areas	An area of land or sea that is formally protected by law and managed mainly for biodiversity conservation.
Critical Biodiversity Areas	An area that must be kept in a natural or near-natural condition to meet biodiversity targets collectively for all ecosystem types, species and ecological processes.
Ecological Support Areas	An area that must be kept in at least a semi-natural or moderately modified condition, or where further deterioration must be avoided, to support the functioning of Critical Biodiversity Areas or protected areas, or provide ecosystem services.
Other Natural Areas	An area in natural, near-natural or semi-natural condition that is not required to meet biodiversity targets for ecosystem types, species or ecological processes.
No Natural Remaining	An area where no natural habitat remains.

What are some key statistics?

Each CBA Map may be slightly different depending on the context. But usually, the Protected Areas and CBA categories together make up about 30% of the total area. With ESAs as well, the area that is prioritised is around 60% of the landscape or seascape. The rest of the landscape or seascape, including Other Natural Areas and No Natural Remaining, may then be available for use by other sectors.



How should a CBA Map be used?

South Africa has been using systematic biodiversity planning for decades, and leads the world in putting the results into action. It is important to identify priority areas for biodiversity because it is not possible to take conservation action everywhere and because the needs of many different sectors need to be harmonised across the country. CBA Maps can be used to make choices about what types of land-use or sea-use are best in an area. The maps have a wide range of applications, but the two most common are:

Planning: CBA Maps are the biodiversity sector's main input towards integrated spatial planning. They can be used in spatial planning tools, like municipal Spatial Development Frameworks, or Marine Spatial Planning, which show a shared future vision of how land or sea should be used. CBA Maps can also be used to identify areas for expanding the protected area network to meet national and international goals for protection of biodiversity.

Decision-making: CBA Maps can be referred to when making decisions about authorising development, for example through Environmental Impact Assessments, environmental authorisations and various types of licensing and permitting.

Where can I get more information?

- The reports, land-use guidelines and spatial data for most provincial CBA Maps, are available on SANBI's BGIS website: http://bgis.sanbi.org/
- The Marine and Coastal CBA Map and associated information is available from Nelson Mandela University: http://cmr.mandela.ac.za/NCMSBP
- The Technical Guidelines for CBA Maps give best practice for running the spatial analysis and presenting the outcomes of a CBA Map consistently: http://hdl.handle.net/20.500.12143/6030

Citation: SANBI. 2024. What is a CBA Map? SANBI Factsheet series. South African National Biodiversity Institute, Pretoria.

Photograph: James Puttick. **Design and layout:** SANBI Graphics & Editing, 2024.