

Biodiversity Report. Focus on Fresh Water Ecosystems

By
FINSA reporter



South Africa's third National Biodiversity Assessment is the newest update since 2011. It is a scientific reflection of the state of the country's biodiversity – unique species and ecosystems. A special focus was on employment generated by business activities that rely on biodiversity.

The National Biodiversity Assessment took five years to complete and involved extensive collaboration of some 470 individuals representing about 90 organisations.

Keynote address Minister of Environment, Forestry and Fisheries, Barbara Creecy, was on hand to provide the keynote address at the launch at the South African National Biodiversity Institute (SANBI) in Pretoria. She said that the Assessment allowed the government to evaluate progress and shortcomings in conservation and ecosystem management on both land and sea.

“The study will be a valuable tool for the environment sector, government, civil society and the scientific community to inform policy, planning and decision-making on the wise use of the country’s biodiversity assets and the management and restoration of ecological infrastructure,” she said.

Main findings

Highlighting the report’s five main findings, the Minister said the good news was that it revealed significant success at assessing and protecting South Africa’s biodiversity. The country has been maintained as one of 17 megadiverse nations that has plant and marine species found nowhere else on Earth. **Employment** The second major finding confirmed the strategic significance of biodiversity-related employment. A biodiversity-related employment study, linked to the National Biodiversity Assessment and led by the South African National Biodiversity Institute (SANBI) and University of Cape Town, found that approximately 418000 jobs are related to biodiversity.

Of these at least 25% of all jobs (about 120000) utilise biodiversity directly. These are created in the commercial fishing industry including small-scale fisheries. The other category is that which contributes to conserving biodiversity, an example being researchers.

Investing for growth

According to Fulufhelo Mukhadi, Deputy Director for Policy Advice at the South African National Biodiversity Institute, for every job involved in conserving biodiversity there are approximately five jobs that depend on the use of biodiversity.

Continued investment in managing and conserving biodiversity is essential so that jobs and other benefits that depend on biodiversity can continue to increase.

“Biodiversity-related jobs have good growth potential and could be sustainable over the very long-term. Since many important biodiversity areas are located outside of cities, biodiversity-related jobs also have the potential to support rural development,” said Mukhadi.

MPAs and spatial management

The Minister said although the report found that the South Africa’s protected areas are generally providing good protection for species including mammals, animal and plant species were under threat.

In August a government gazette notice called for public comment to the Draft Approach to Spatial Management System Report for South Africa’s Marine Planning Areas which has been developed in terms of the Marine Spatial Planning Act (Act No.16 of 2018).

Marine Spatial Planning as one of the initiatives under Operation Phakisa: Oceans Economy, offers an approach to improving the rational planning, management and governance of the South African ocean space and marine resources.

The focus is on bringing key stakeholders from the public and private sectors as well as civil society organisations together to collaborate in addressing national priority areas.

Marine area plans

South Africa intends to develop Marine Area Plans for four Marine Areas. These Marine Area Plans will strategically allocate the spatial and temporal distribution of human activities to achieve ecological, economic and social objectives. They will guide planners and sectors in their decision-making to ensure future marine patterns of use are not only sustainable but are coordinated and maximise compatibility amongst sectors.

Commercial fishing

From a commercial fishing perspective spatial management has included areas closed to trawl fishing and marine protected areas.

The trawling sector has been further squeezed this year by the additional 20 marine protected areas proclaimed and which increased the amount of protected South African waters to 5,4%. Inshore trawl licences prohibit trawling within these MPAs.

At a recent linefish symposium at a session on linefish monitoring, it was revealed that the use of remotely operated vehicles (ROVs) and baited remote underwater stereo-video cameras (BRUVs) had confirmed that fish biomass and abundance is considerably greater inside current and newly established no-take MPAs.

Freshwater ecosystems

The study found that major pressures on South Africa's biodiversity are habitat loss, changes to freshwater flow, overuse of some species, pollution, climate change and invasive alien species. "The most concerning of the report's findings relate to South Africa's freshwater ecosystems, rivers, wetlands, estuaries and freshwater fish stocks. These are the most vulnerable of all species groups and the most threatened ecosystems in South Africa," said the Minister.

Urgent action

In a water-stressed country such as ours, these findings are cause for serious concern," said Minister Creedy. She acknowledged the scientists' call for urgent action to improve the health of the rivers, wetlands and estuaries that protect the country's water security.

"The restoration and protection of these fresh water eco-systems, or what we term eco-infrastructure services, will deliver huge returns on investment with great benefit to the communities that depend on them," she said.

Vulnerable marine ecosystems

In addition, the science, mapping and management of vulnerable marine ecosystems has been taken into consideration. This includes indicator organisms such as stony corals, soft corals, sea fans, sponges, etc.

Benthic study

The impact of trawling on benthic habitats and recovery rates after trawling has been researched by the South African Deep-Sea Trawling Industry in conjunction with a host of scientific partners, all with a vested interest in sustainability. In 2018 a five-year benthic trawl experiment undertaken on the Karbonkel trawl grounds in the waters of the northern Cape, was concluded. What SADSTIA was most keen to establish was if there was impacts of trawling on *Karbonkel* and what kind of recovery the researchers had observed in the trawl lanes that had been closed to fishing for four years

Conclusion

The information in the report will feed into policies such as the National Biodiversity Framework and the National Protected Areas Expansion Strategy. It will also assist in the country's international reporting obligations – such as the state of environment reporting and the Convention on Biological Diversity Country Report. It will also improve targeting of the Department's already extensive programme to re-habilitate rivers, estuaries and wetlands.

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