

Study Puts Monetary Value on KZN's Ecosystems

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Lake St Lucia in KwaZulu Natal province is Africa's largest and oldest protected estuarine system.

For the first time, [a study](#) has mapped a suite of the services provided by KwaZulu-Natal's natural systems and placed a monetary value on them.

"The services provided to humanity by nature are often undervalued, or not valued at all," said Salman Hussain, the coordinator of the Economics of Ecosystems and Biodiversity initiative, which is hosted by the United Nations Environment Programme (UNEP).

"But by showcasing the services that natural systems provide to our economies and societies, we can further the argument for protecting habitats and restoring ecosystems that have already been impacted by development."

Value of ecosystems

KwaZulu-Natal has a broad array of ecosystems which play an important role in storing carbon, retaining soil, preventing floods, improving water quality, promoting pollination, and providing recreational value.

In 2011, the combined value of those “essential ecosystem services” was R33.4 billion, equivalent to 7.4% of the province’s economic output. But values of many of the services have decreased over time, particularly in the grassland and savanna biomes. This is partly as a result of their conversion to intensive land uses, such as cultivation.

Natural capital accounting

The report’s findings are based on what’s known as natural capital accounting. This measures the often-hidden services that ecosystems provide to the economy and society. This allows governments and businesses to take into account the benefits of these services when making decisions about things like where to locate industry, what agricultural systems to emphasize, and which areas to protect.

“Natural capital accounting helps decision makers to go beyond gross domestic product and traditional economic measures, to gain a finer perspective on the environmental impacts of development, and the implicit trade-offs being made,” says Hussain.

[Biodiversity Report. Focus On Fresh Water Ecosystems](#)

Who’s involved

The new study was commissioned by UNEP and produced as part of the South African component of the European Union-funded [Natural Capital Accounting](#) and Valuation of Ecosystem Services project. The effort, which also involves Brazil, China, India and Mexico, is jointly implemented with the United Nations Statistics Division. In South Africa, Statistics South Africa and the South African National

Biodiversity Institute are leading the project while collaborating with the Department of Environment, Forestry and Fisheries and other partners.

Future outcomes

Jane Turpie of Anchor Environmental, lead author of the report, says the project demonstrates that it is possible for countries to develop accounts for a range of ecosystem services in both physical and monetary terms.

This is consistent with a form of natural capital accounting known as the System of Environmental Economic Accounting [Experimental Ecosystem Accounting](#) framework.

In follow up work, the results from KwaZulu-Natal will contribute to national and global discussions about the use of accounting approaches for informing complex challenges such as land degradation neutrality by 2030, she added.

The project will also serve as an example for conservation efforts in other countries as part of the [United Nations Decade on Ecosystem Restoration](#).

“This study serves as a shining example of how measuring what matters could lead to better policy making,” says Hussain.

“As the international community negotiates a [post-2020 biodiversity framework](#), such research could hardly be more timely.”

