SA moves to begin reflecting the economic value of its ecosystems, biodiversity

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Over the coming year, the Department of Environmental Affairs will study the contribution of South Africa's ecosystems and biodiversity to the economy in a bid to correct for the current "depreciation" of the country's natural capital in its national accounts.

South African National Biodiversity Institute (Sanbi) bioregional programmes chief director **Kristal Maze** reported on Tuesday that the project was aligned to 'Outcome ten', or the environmental outcomes, of government's 'measurable performance and accountability' management tool.

Speaking at a Sanbi-sponsored conference on 'Biodiversity: Powering the Green Economy', Maze indicated that the study would seek to ensure that the "goods and values" derived from ecosystems were fully reflected in South Africa's national accounting systems.

These ranged from the real economic contribution of wetlands to human livelihoods and natural water management, to the role that coastal vegetation plays in offering a buffer against sea surges.

The research should provide insight into services extended by the natural environment and improve visibility of the costs and benefits involved in pursuing other uses for land, such as agricultural, mining or other greenfield business developments.

The information should also improve the capacity of government and private sector planners to begin integrating traditional engineered infrastructure, with emerging green infrastructure solutions and the existing "ecological infrastructure".

Also referred to as "beehive thinking", such integration seeks to optimise the economic, development, job creation and environmental outcomes through adopting a 'landscape' perspective to planning.

In the South African context, this would also involve the further integration of Outcomes ten and six, the latter relating to government's desire to scale-up social and economic infrastructure, particularly infrastructure that was supportive of further extractive, manufacturing and agricultural production.

In fact, Sanbi had already mapped South Africa's "priority" biodiversity areas in a way that sought to balance the various land-use options, while meeting the ecological infrastructure targets "in as little physical space as possible".

This mapping, which is disaggregated down to the municipal level, had been digitised and was freely available for use by environmental-impact assessment practitioners, the designers for mine environmental management programme reports and for municipal and provincial spatial planning processes. The National Planning Commission had also used the information, which has been integrated with Google Maps, in its material conditions report.

"Through careful science we have determined the areas that are most important in terms of ongoingsustainability . . . [and] ensured that there is space available for ongoinggreenfied development," Maze explained.

The mapping exercise, together with the move to attribute an economic value to ecosystems and South Africa's rich biodiversity, should also enable government to begin more fully exploiting the latent jobs potential in maintaining and reclaiming ecological infrastructure.

Currently, the National Treasury was investing about R2-billion yearly in natural resource management programmes, such as the removal of alien vegetation, which was creating a large number of job opportunities.

However, Sanbi was convinced that there was potential to create far more jobs in the sector, noting that a yet-to-be-published report by the Development Bank of Southern Africa and Trade and Industrial Policy Strategies indicated that the bulk of the green economy jobs lay in natural resource management, rather than in renewable energy and resource efficiency sectors.

“We see ecological infrastructure as offering the foundation for what could be exponential opportunity for entrepreneurship through things such as payment for ecosystem services, the use of biodiversity in the carbon economy, as well as opportunities in the area of ecotourism,” Maze concluded.