

Protecting South Africa's 'water factories'

 By [Sindy Peters](#)

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Speaking at the 7th annual Water Stewardship Event held virtually this week, Yakeen Atwaru, director of resource directed measures at the Department of Water and Sanitation (DWS), shared some stark figures: 3 million people in South Africa do not have access to basic water supply and 14.1 million do not have access to safe sanitation; more than 50% of South Africa's wetlands have been lost and of those that remain, 33% are in a poor ecological condition; municipalities are losing millions of litres of water per year through non-revenue water, equating to about R9.9bn annually.



Source: Ilko Iliev © [123RF.com](#)

In a water-scarce country, these stats point to a highly unsustainable future and make the development case for greater investment in protecting our strategic water source areas - areas that support regional populations and the economy, Atwaru explained. "They contribute significantly to development needs, which are often far away from the source. They comprise between 8-10% of South Africa's land surface area but contribute to 50% of surface runoff. They also support approximately 60% of South Africa's population and 67% of the economy, and supply 70% of irrigation water."

Opportunities and threats

Maintaining the integrity of this ecological infrastructure is thus vital but, alarmingly, of the 22 areas delineated, only 13% of them are under any formal protection and many are under threat, said Atwaru. Issues include acid mine drainage, dysfunctional wastewater treatment works, hydraulic fracturing, climate change, land degradation, large-scale cultivation and plantations, and the spread of invasive alien vegetation.

"These [strategic water source areas] are commonly known as 'water towers' or 'water factories', supplying the country with a large percentage of water. If we protect these areas, then we are going to have increased water supply, and we're going to ensure water security," explained Atwaru. Other benefits he noted include improved water quality, improved climate resilience, decreased costs of water treatment, sustainable job creation, and biodiversity conservation.



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Safeguarding SA's strategic water source areas

DWS and its collaborative partners are in the process of tackling some of the challenges related to safeguarding SA's strategic water source areas, one of which is the current gap in protective legislation. Following consultation with the Chief State Law Adviser, DWS is exploring the potential addition of provisions into the National Environmental Management Act and the National Water Act in order to help strengthen regulations related to strategic water source areas.

The department is also looking into obtaining resources through the Green Climate Fund in order to undertake pilot studies that will allow for a better understanding of these areas and to improve monitoring. "There is a special task team set up to look at criteria to prioritise the securing of strategic water source areas," said Atwau, with the Department of Environment, Forestry and Fisheries looking to secure 11 of the 22 areas as part of its five-year strategic plan.



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Biosphere Reserves

Another potential protection mechanism being explored is designating these areas Biosphere Reserves under the Unesco Man and the Biosphere Reserves (MAB) programme. Atwaru noted that the use of complementary protection mechanisms can help in realising targets, such as the Sustainable Development Goals, while also protecting and sustaining strategic water source areas. "This is an opportunity that we must look at going forward," he concluded.

The 7th annual Water Stewardship Event was held under the theme 'Water stewardship in action: A journey to economic recovery'.

ABOUT SINDY PETERS

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