

Game changers: Can the youth convert water pollution challenges to opportunities

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Service delivery and youth unemployment are two key issues facing much of South Africa. Through action research funded and guided by the Water Research Commission, the Ground-Truth, in partnership with WESSA, Duzi Umngeni Conservation Trust (DUCT), and working with local communities through the Enviro-Champs programmes (a youth initiative), water service delivery is being improved and 'door-to-door' education is enabling young people to become the 'eyes and the ears' of the community, helping people manage their waste, fix leaks, as well as better manage their water resources, reducing pollution by magnitudes.



Image source: [Facebook](#)

The Enviro-Champs have saved 10-million litres of treated water and prevented 18 surcharging sewers from continuously spilling into Midmar Dam in just six months. The project is coordinated by DUCT with capacity building support from WESSA and Ground-Truth. More than 20 students (ranging from Honours to PhD) registered at UKZN, Rhodes and Free State universities are benefiting in this partnership research funded by the Water Research Commission and the Department of Science and Technology. This would not have been possible without the cooperation of the Department of Water and Sanitation, as well as the local municipalities and councillors.

uMngeni catchment under pressure

The Midmar Dam is one of the key sources of water for citizens residing in eThekweni and uMgungundlovu cities, and many other small municipalities and rural areas in the uMngeni catchment. The catchment is currently under tremendous development pressure, including from informal settlements, all leading to seriously polluted river water resources. This lack of water security poses a serious threat to Durban's tourism GDP and that of the surroundings. This situation is progressively made worse by climate change, drought and general soil erosion due to mismanaged land use resulting in the spread of alien and invasive species, removal of vegetation, destruction of wetlands, river sand mining, and so on.

The excessive pollution of uMngeni water resources, including the estuary, is a reflection of a sick catchment. These challenges are not insurmountable with technology and entrepreneurial skills characteristic of our youth. This is the fundamental and practical cornerstone of achieving the green village and green economy concepts, as well as realising the blue economy (Operation Phakisa). In its broad partnership, the Water Research Commission is supporting a number of

community- and youth-led action research projects on developing entrepreneurs and green/blue jobs, so critical in changing society's livelihood, as aspired through the UN Sustainable Development Goals 2030, Africa agenda 2063 and our own NDP.

Converting water pollution into opportunities

Youth and community mobilisation is proving a remarkable approach to addressing water pollution challenges and job creation. In this case, the source of some seed funding came through the Expanded Public Works Programme, managed by DUCT. Viable business ideas in converting water pollution into opportunities are critical and the Water Research commission is open to such proposals.

Other parts of South Africa are developing projects similar to Enviro-Champs in Mphophomeni, Pietermaritzburg. Known by different names, these are being established at Pongola, Ceres, Stellenbosch and Amanzimtoti. The opportunity exists for upscaling the projects, provided there is youth leadership and game changing ideas. Water resources are under serious pressure, which can only get worse, hence the need to think and act differently. The youth owns the future and have the ability to shape it.

Green and blue economies are thus proposed as major youth development initiatives. The initiatives will build on existing experiences and research and are designed to be applied across South Africa. In the context of persistent inequality and high unemployment in South Africa, there is a strong drive to support inclusive growth, including sustainable job creation. A key consideration in terms of sustainability is the availability of water, and management of waste to support economic and social development. This will require the protection and restoration of catchments as well as the ongoing monitoring and management of water quality through wide-spread youth and community mobilisation, such as through green jobs for blue rivers in South Africa.

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