

# CLIMATE CHANGE

## Comprehensive climate resilience programme takes off in Limpopo

*South Africa is extremely vulnerable to the impacts of climate change, and the country's already scarce water resources are expected to be particularly affected. A new programme being implemented in the Giyani Municipal Area, in Limpopo, is demonstrating climate adaptive responses and solutions with communities in the area in support of a water secure future.*

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The Giyani Local Scale Climate Resilience Programme is funded by the Government of Flanders and the Water Research Commission (WRC), with partners Tsogang Water and Sanitation, the Association for Water and Rural Development (AWARD), and the University of the Western Cape (UWC). The programme aims to, among others, create an enabling environment whereby local authorities, institutions, communities, tribal authorities and market players are mobilised to improve climate resilience and water utilisation.

The project team is working with local authorities and communities to test new methods and innovations to supplement water supply, enhance food security and ultimately, improve livelihoods. "Our ultimate objective is to ensure

sustainable and secure water resources so as to improve the livelihoods of the communities living in the rural area while creating opportunities for job creation and emerging farmers," reports WRC Programme Manager, Virginia Molose. The ambition is to positively impact the lives and socio-economic opportunities of an estimated 5 000 beneficiaries from 2022 until 2025.

Molose explains that an earlier study, undertaken by the UWC, revealed the area's particular vulnerability to the impacts of climate change. Dwindling water supplies and present challenges to electricity-dependent water-supply systems amid loadshedding also threaten Giyani's water security. This motivated the launch of the programme in Giyani.



*Sustainable water supply is a considerable challenge in the Giyani district.*

The project team is engaging the local municipality, Greater Giyani, on local economic development initiatives while the Mopani District Municipality, which is the water services authority, is being engaged on the water services component of the programme. "The need for water is extremely apparent in Giyani. Both municipalities have been receptive to the programme and see the value in the proof of concept of alternative water supply and energy models to improve water security in the area for both domestic and productive purposes," notes Molose.

#### **Particular objectives of the Giyani programme**

The project has set a number of key objectives, as described below.

##### **Objective 1: To strengthen the enabling environment in key communities in Giyani and to improve water utilisation for environmental, social and economic activities**

The programme is working towards effecting change in the way water resources are leveraged towards social, environmental and economic objectives. This requires capacitated and engaged stakeholders and effective monitoring, coordination and oversight of all the moving parts. The enabling environment envisaged for the programme aims to:

- establish and improve the rights and capabilities of all key beneficiaries and stakeholders
- ensure that a sustainable balance is achieved between the social, economic and environmental needs for water to act as an enabler

Among others, design and rollout of learning events and establishment of local and national learning networks will be key to sustaining the outcomes of this objectives. Prioritised capacity build and knowledge transfer will include:

- An in-house Local Authority component established with the local and district authority to focus on alternative water solutions and the process, regulatory and maintenance implications of these alternative operating models whereby communities are empowered to manage water infrastructure and utilisation
- Knowledge transfer workshops to assist various beneficiaries and stakeholders to engage, collaborate and share lessons learnt. It is envisaged that the workshops will culminate in learning documents and will recommend and guide implementation, policy, social, policy and regulatory activities.



*A water sample being taken from the area of Nhlambeto where the community is abstracting water from the sand river.*



*Agriculture is the main economic activity in the Giyani area.*

### **Objective 2: Implementation and scale-up of multiple use water systems, services and alternative energy options**

Multiple use water scheme (MUS) are low-cost, equitable water-supply systems that are expected to diversify the water mix for communities in Giyani for both livelihood needs and high-value agricultural production. This will benefit households, subsistence farmers and smallholder farmers. Having piloted the MUS model in other parts of Limpopo province, whereby the participatory model was developed and tested, this scale-up demonstration will bring in solar energy options for the treatment and pumping of water, diversifying water resources (through, for example, groundwater and sand banks) and move the implementation into a space whereby key outcomes linked to environmental protection, livelihoods and economic activity can be achieved.

The programme has already revealed some interesting insights, such as the indigenous practices being applied by local communities. This includes rotation ploughing methods, and the planting of drought resistant crops as well as the abstraction of water sand rivers. These local initiatives might be replicable elsewhere.

### **Objective 3: Support to local economic development priorities and alignment with the development of a post-project sustainable strategy**

This programme aims to achieve socio-economic and growth-linked benefits to Giyani beneficiaries ensuring that the resilience demonstrated is extended beyond the programme's life. One way in which the project team aims to achieve this is through social franchising. This will involve the training and developing of a number of local businesses and franchisees to support implementation of, for example, MUS solutions in the Giyani area.

The programme has not been without difficulties. Molose

reports that institutional hindrances and models of service delivery in rural areas remain a challenge, with authorities expressing some reluctance to institutionalise alternative water supply options. This while communities' patience and trust in municipalities is at an all-time low. It is hoped that through the participation of municipalities and communities in the programme this situation might be improved. Particularly the municipalities' willingness to commit to a process of co-learning is to be commended.

"The WRC cannot tire in its quest to offer innovative solutions and alternatives as part of government's goal of providing sustainable services to all communities in South Africa," notes Molose. It is hoped that programmes such as these can go a long way in reigniting the potential of rural communities such as those located in Giyani.



*Co-learning and knowledge sharing is a central part of the programme.*