

Rural South African women collaborate with engineer for better water

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Prolinnova–South Africa is one of the Country Platforms (CPs) of the global network. The Institute of Natural Resources (INR) is a non-profit company that has hosted the CP for several years. While there have not been external funds available specifically under the umbrella of Prolinnova for supporting participatory innovation development in more recent years, there have been other opportunities to implement the approaches that are promoted by Prolinnova. These also serve as opportunities for mainstreaming the approach into the work of our organisation and making others aware of the

benefits of supporting local innovation processes to address challenges that face rural communities with which we work.

In 2021, the Living Catchments Project, which is funded by the Water Research Commission (WRC) and coordinated by the South African Biodiversity Institute (SANBI), offered just such an opportunity. Through this project, the INR plays the role of convening a community of practice aimed at achieving co-learning and collaboration towards ensuring water security in the upper uThukela catchment. This catchment falls within a high rainfall area in KwaZulu-Natal

Province and is an important supply of water for the Gauteng area (Johannesburg and Pretoria), yet communities that reside in rural parts of the catchment do not themselves have access to reliable piped water and many rely on natural water sources such as springs and streams. Through this project, some funds were made available to pilot some interventions to improve household water supply.

One of the springs identified for intervention is at KwaMagaba, a rural village close to Royal Natal National Park, a protected area with World Heritage Site status. A local community facilitator, who lives in the area and is part of a local action group that works to improve local livelihoods and access to basic services, identified the users of this spring as being in need of assistance. During the first visit to the site with the local facilitator, INR staff and an agricultural engineer met with the



Initial visit to the spring to assess the existing infrastructure.

Credit: Brigid Letty

group of women who use the spring.

The women had developed a local technical innovation and an associated institutional innovation in devising a plan to improve access to the water in the spring. They had sunk two metal drums into the spring so that the water would rise up within them, providing a place to collect water using a small bucket. The women said that they collectively cleaned out the drums when dirt accumulated and replaced them when they became too rusty.

Since the spring was unfenced, livestock from the area drank from the drums and trampled the area around them, and sometimes dead organisms were found floating in the drums, making the water unsafe for human consumption.

During the discussion with the women, who are largely from women-headed households and do not have the support of men, ideas were shared about how the spring infrastructure could be improved to ensure a supply of clean water for the households. It became clear early on in the discussion that there are a lot of cultural beliefs about interfering with springs. The women felt that we should create as little disturbance as possible to avoid upsetting the 'custodian' of the spring, which might lead to it drying up. Men from the local community who do any work related to the spring are expected to purify themselves by abstaining from sex for some days beforehand, and the group must also give some tokens of thanks to the spring. Within this context, and drawing on the experiences of the engineer, who has worked with communities elsewhere to protect their springs, the interventions were planned. The first step was to fence the spring. Even with this, there was some discussion because the women were concerned that the fencing might be stolen. They suggested that the area to be fenced be as small as possible to avoid creating any temptation. One of the INR field officers took fencing materials up to site and assisted the women to start fencing the spring, leaving them to complete the task.

Options for replacing the drums were also discussed collectively. The project team brought in a retired builder,



A child collects water from the fenced spring before the construction of the concrete chamber.

Credit: Brigid Letty

who has experience with spring protection and construction, to work with the community group. Initially, the plan was only to create a concrete chamber to replace the drums but, while on site, discussions between the community group and the builder led to a change of plans where it was decided to cover the chamber and also provide some overflow pipes that make it easier and safer for children to collect water from the spring.

This project has provided a range of lessons. Regarding gender roles in these rural households, it was clear that the women are solely responsible for making sure that there is water in the house and hence they are responsible for ensuring that their water source is in a good condition at all times. It was found to be effective to work with a group of

women who had already come up with an innovation to address their water needs – this is the main benefit of supporting local innovation through the process of participatory innovation development. The INR played a key role in facilitating the discussions and ensuring that the engineer took the women's concerns into account when designing the intervention. The process gave the women the space to take more control over their lives, ensuring that their suggestions were integrated into the plans. Lastly, this serves as a pilot to demonstrate to other organisations and community members that simple interventions that can be managed locally can make a substantial difference to people's lives rather than waiting for large-scale service delivery, which is usually slow in coming.