

June 2017

The WRC operates in terms of the Water Research Act (Act 34 of 1971) and its mandate is to support water research and development as well as the building of a sustainable water research capacity in South Africa.



## Exploring learning networks for homestead food gardening and smallholder farming

*Homestead food gardening and smallholder farming can go a long way towards defeating hunger and under-nutrition in South Africa. There is significant training material available to enhance the productive use of water to grow food, but effective knowledge dissemination remains a challenge. This briefing note describes a Water Research Commission (WRC) project which sought to address the challenge of getting greater uptake of available research and training information to homestead food-growers and smallholder farmers who are keen and able to use it.*

### Background

Household food security in South Africa remains a national challenge, with an estimated 59% of 13.7 million households being food insecure.

Agriculture contributes significantly to the livelihoods of an estimated 4.5 million people who have access to small portions of agricultural land. Yet, utilisation of available land and water resources for smallholders, both in homestead gardens and fields remain low.

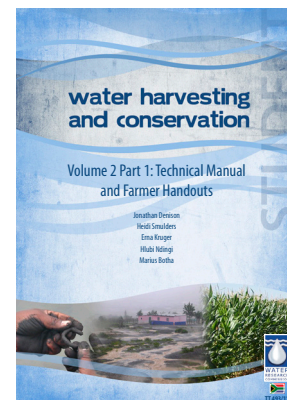
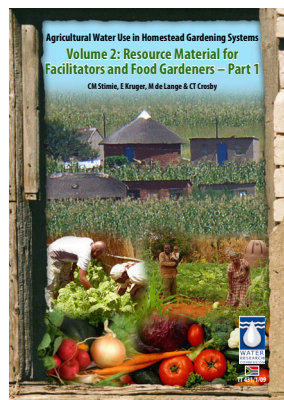
There is a vast array of policy that emphasises knowledge dissemination for improvement of smallholder farming practices. As it is women who are responsible in the majority of cases for homestead decisions, they are a key group to target in initiatives aiming for increased crop production and food security.

There is a substantial body of training information in the public domain which responds to the multi-faceted crop-production challenges faced by smallholder growers, which formed the focus of this research initiative. Two recent WRC research products were prioritised: one targeting homestead food production and the other water-harvesting and conservation techniques.

More specifically, the project pilot tested an Action Oriented Strategy and system oriented knowledge dissemination model that allowed for knowledge dissemination via a Training of Trainers programme which activated knowledge uptake and skills development in a Learning Network structure. All stakeholders in the agricultural learning system (colleges and university lecturers, extension officers, NGOs,

research organisations, local economic development officers and farmers themselves) should co-learn to use the WRC materials in their context of practice.

An important outcome of this project has been Amanzi for Food, a website (<http://amanziforfood.co.za/about/>) and associated materials aimed at making WRC knowledge materials available in various user-friendly formats (including info cards, posters, videos, and handouts).



*The two WRC products used in the study.*

### Main findings

The knowledge dissemination, training and uptake model as established under this project involves the following elements:

1. **Contextual profiling** to identify active roleplayers in the agricultural learning system, with the local agricultural training institutes as 'hub' or core learning

organisation. The criteria is to identify those partners with an interest in supporting better agricultural water management practices in local smallholder and household food production sites.

2. **Establishment of multi-actor learning network** involving the active roleplayers (multi-actors) where multi-actors are invited to deliberate on their current roles and involvement in agricultural water management for smallholder farming and homestead food production systems, and to identify how they might become more involved in such practices.
3. **Training of trainers programme** – which was a key activating mechanism for bringing the knowledge into use. Among others, this offered multi-actors in the learning network a chance to a) review their current agricultural water management practice engagement, b) identify potentially new practices they would like to engage in and c) make use of research-based knowledge to inform their decisions.
4. **Extended media development, engagement and communications:** Providing support for extended media engagement and sharing of knowledge of agricultural water practices via an Internet platform which provides varied forms of access to the materials, community radio and newspapers, SMS communications using WhatsApp, and via local forums etc. was found to be important for extending the network activities, facilitating expanded communications and making the materials more visible to others.

## Recommendations

The final report offers various recommendations for implementing the Action Oriented Strategy further.

### *Training of trainers within a learning network structure*

The project identified a need for more networking between different agricultural stakeholders in the sector. The agricultural sector, especially in areas of education and training should encourage learning network structures or forums to form and meet occasionally to discuss new practices being implemented in the area and addressing challenges that are faced by food growers in the area.

The project demonstrated the significance of the concept of productive demonstration sites in the Training of Trainers process, especially as the productive demonstration sites help to realise the knowledge in practice, and also address the theory-practice nature of agricultural training, while also developing the competence-based approaches that are now being promoted.

Finally, there is a need for better communication channels and tools for these different agricultural actors to communicate. WhatsApp, Facebook and the radio have all been very effective communication channels that learning members have used in the WRC project. The agricultural sector should be using these media tools and platforms in order to reach a wider audience for agricultural learning of practices.

Extension services are already located in the communities in which they work and deliver training regularly. Incorporating training of trainers in collaboration with other organisations such as the agricultural colleges is recommended. What this means for extension services through is an alignment of extension functions with other departments, directorates and stakeholders at national, provincial and local government levels.

Colleges have access to knowledge resources from the WRC and other knowledge providers. As was found in this project, the colleges already have student and farmer training programmes which can innovate to include key aspects of rainwater harvesting and conservation.

Training of trainers helped college lecturers to conceptualise such curriculum innovation using WRC materials. It is recommended that colleges plan for facilitating such training of trainers programmes as part of their formal curriculum planning, curriculum innovation, and community outreach programmes.

### *Extending knowledge dissemination further*

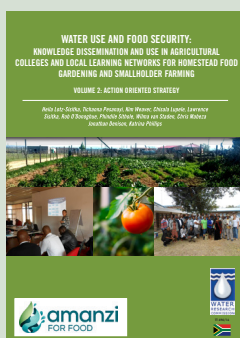
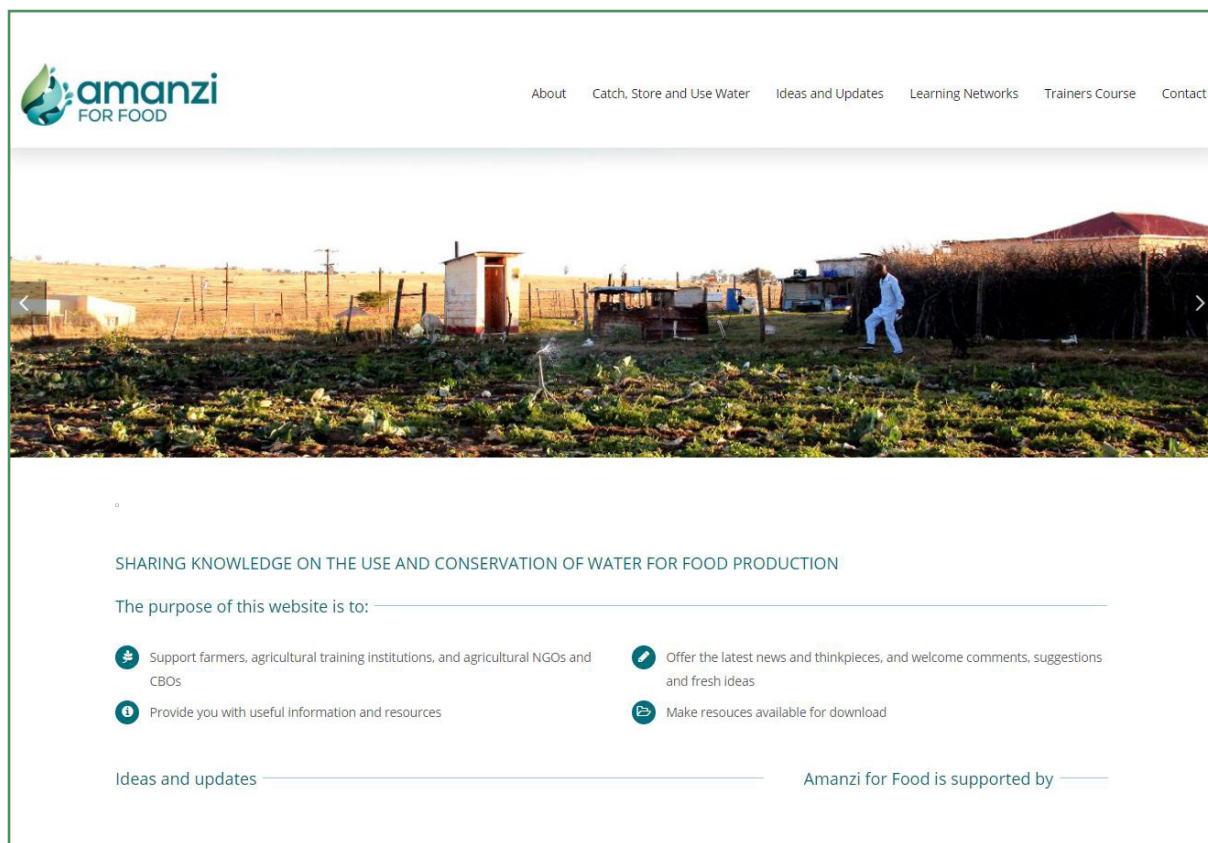
The project clearly showed that knowledge dissemination **is not a technical transfer process, but involves an engaged social learning process using a diversity of processes and media.** In a short time period, the Amanzi for Food project established an interactive media-based communication system that appears to have potential to expand the use of the WRC materials in interesting ways.

The website proved to be an important 'holder' of the materials for quick access and demonstration. However, although there is now enhanced access to the materials via the website, there is still a strong need in the field for hard copy materials, especially produced in summary versions in vernacular languages for farmers in rural areas.

Experience in the project has reinforced the dominance of radio as the preferred medium of media communication in rural areas, but has also highlighted the growing trend towards the use of mobile phone applications such as WhatsApp, and internet services such as Facebook or



Twitter for communicating with friends, fellow farmers and colleagues. Facebook and WhatsApp were found to be quite interactively used in the Amanzi for Food project, and attracted both farmers and youth to the site, as well as extension officers and other interested parties.



To order the reports, *Water use and food security: Knowledge dissemination and use in agricultural colleges and local learning networks for homestead food gardening and smallholder farming Volume 1: Research and development report (Report No. 2277/1/16)* and *Volume 2: Action oriented strategy (WRC Report No. TT 694/16)*, contact Publications at Tel: (012) 761 9300, Email: [orders@wrc.org.za](mailto:orders@wrc.org.za) or Visit: [www.wrc.org.za](http://www.wrc.org.za) to download a free copy.