



Training of Trainers Course Orientation & Framework

Learning Together to Harvest, Conserve and Use Rainwater for Growing Food, extension and teaching

“If you want to go fast walk alone, but if you want to go far walk with others”
African Proverb

1. Background

1.1 ‘Sweet water’ (amanzi amnandi) for food production

The small-scale farmer and household food grower knows that water is important for watering their vegetables, food crops and livestock. They also know that without water, their farming practice collapses. The mother in the rural area knows even more that water must be made available in the home every morning, day and evening in order to cook the food for the children and family, and to replenish the drinking and bath water. She is prepared to walk long distances to fetch ‘sweet water’ when nearby sources dwindle. (This reality is increasingly demanding more effort on the urban dwellers as well as taps either cease to deliver water, or discharge un-drinkable water).

Unfortunately water sources continue to decline in quality and quantity for various reasons ranging from decreasing rainfall; springs, wells and wetlands degrading, drying out or getting saltier; dams, rivers and streams silting and increasing pollution among others. Development programmes in rural areas have tried to bring water to the communal space or homestead but usually this is not adequate for the garden and farm plot.

The culture of agriculture still sustains many rural families whose food requirements cannot be entirely left to the supermarkets, and whose livelihoods depend on income from farming. It is based on freedom to choose and know what to plant, what to eat, what to feed growing children to ensure nutrition and avoid stunted growth. But these agri-cultures are under threat especially from water scarcity, a very important issue in South Africa. Homestead food production and small-scale farming freedoms are seriously compromised when agricultural water is either inadequate or non-existent. Rainwater harvesting and conservation provides hope through careful capacity development that is jointly owned by

trainers, curriculum/course developers, rural development facilitators, farmers and researchers. These roles can be temporarily inter-changeable where certain specialised knowledge application is needed. A farmer can thus be a resource for demonstrating water harvesting practices needed by a trainer or extension officer.

We cannot claim that Rainwater Harvesting and Conservation (RWH&C) can solve all the water problems faced by farmers, but it can certainly make a major contribution to increasing food production at all scales of farming operation.

1.2 Capacity building for rainwater harvesting through Learning Networks

So what can farmers do when water is scarce and they still need to produce food to eat and/or to sell? What is the role of the extension officer, farmer trainer, development worker and researcher and how can the service they offer be more relevant to the farmer's water needs? How can agricultural college and faculty curricula and trainers respond to such needs? Why is the knowledge and context that each of these actors brings important for successful provision of water for food?

The *Amanzi for Food* capacity development programme is an innovative set of training, networking, media and resource materials mediation actions that seek to:

- **Connect people and organisations** in their intersecting workspaces to share their knowledge, experiences and collective labour (*ilima*) on rainwater harvesting. Acknowledging the knowledge and value of others is recognition that a person is what they are because of the contribution of other people in shaping their lives (*Umntu ngumuntu ngabantu*);
- **Enhance the practice and training of rainwater harvesting** to improve food production and nutrition;
- **Provide learning resources and mediation methods** for learning and practicing rainwater harvesting;
- **Support establishment, use and maintenance of sustainable water harvesting productive demonstration activities and sites** that are owned and maintained by their users;
- **Explore and use opportunities for curriculum and course development and innovation;**
- **Reward** those who complete the course and its tasks with a **University-accredited certificate of competency.**

A training-supported emergent Learning Network approach provides network members with the opportunity to learn about RWH&C and grow together. A key aspect of the capacity development process is the Training of Trainers (ToT) Course.

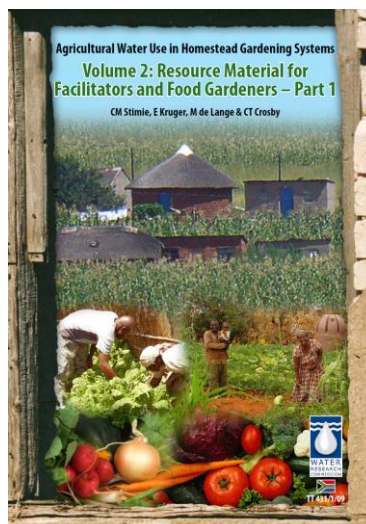
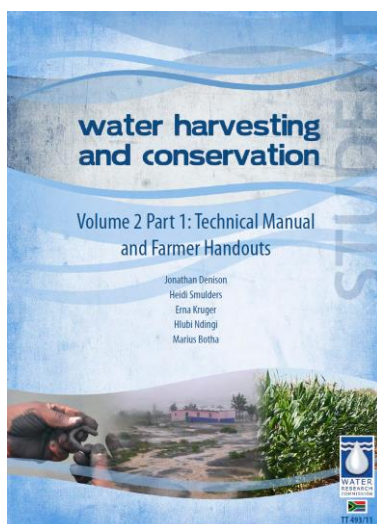
1.3 The Training of Trainers Course

This Training of Trainers (ToT) Course is a key component of the Water Research Commission (WRC) Project K5/2713: **'Amanzi [Water] for Food': Developing a social learning network approach to knowledge dissemination and uptake in the agricultural learning system, focussing on the management, use and conservation of water for small scale farming and household food production.**

This project is facilitated by the Rhodes University Environmental Learning Research Centre (ELRC) and the course is designed to support those involved in agricultural training, education, small-scale crop farming and household food production practices in both the formal (University, ATI / College and possibly High School teachers) and informal sectors (agricultural extension services, NGOs, FBOs, small-scale farmers and homestead food producers [particular focus on youths, women] and others) to integrate training on Rainwater Harvesting and Conservation (RWH&C) into their training and production practices.

The main focus of the project is on supporting the use of RWH&C materials developed in earlier WRC projects, in particular:

- **'Water Harvesting and Conservation (WH&C)'** (Jonathan Denison, Heidi Smutters, Erna Kruger, Hlubi Ndingi, Marius Botha, WRC, 2011), from WRC Project No: K5/1776
- **'Agricultural Water Use in Homestead Gardening Systems (AWHGS)'** (CM Stimie, E Kruger, M de Lange, CT Crosby, WRC 2010), from WRC Project No: K5/1575/4



In addition:

- **Practices and Applications in small-scale farming crop fields, homestead gardens and pastures, biogas, aquaculture, greywater harvesting and African leafy vegetables.**



The Course is funded through the WRC Project, and further support is provided by many partners involved in the Learning Networks.

2. Two Training Streams and Two Rhodes University Certificates

The Course, although run as a single training process, will have 2 Streams; one for the formal educators, and the other for the informal trainers, small-scale farmers and homestead food producers. Both sets of groups will share the learning experiences in the contact sessions and collaboratively apply these to their own areas of work. In this way they will also be able to share their own experiences and ideas with each other.

The course provides the opportunity for participants to achieve Rhodes University Certificates:

For Stream 1 (formal education sector): *'Amanzi for Food' Training of Trainers Certificate of Competence in Curriculum Innovation and Changing Practice*– 12 Credits at NQF Level 6

For Stream 2 (informal training sector): *'Amanzi for Food' Training of Trainers Certificate of Competence in Environmental Learning and Changing Practice*– 12 Credits at NQF Level 5

In order to achieve these certificates participants will be required to successfully complete tasks/ assignments, appropriate to their context and the level of certification. The Course

will provide the main focus for the Learning Network meetings, although not all members of the Learning Networks may wish to undertake the Course.

3. The Training of Trainers Process

3.1 The Shape of the Course

The process follows three (3) phases, as identified in Figure 1, below. Each phase will comprise a one or two-day workshop which will be guided by a Course Module, followed by tasks/assignments for participants to complete before the next workshop. These assignments will be appropriate to each partner's context, mode of operation, and description of the qualification towards which they are working (see above), and will be assessed according to specific assessment criteria designed for this purpose under the Rhodes University short course policy and procedures.

A further component of the process will involve the course participants in the further development of an 'Amanzi for Food' website, which, through their involvement, will ensure that the site is relevant to their needs and accessible to them, and by extension for others in their situation. The idea is to feature the activities and inputs of the course participants on this website, both during the contact sessions and when undertaking their tasks/assignments. These activities and inputs will be shared through a range of media, including Facebook dialogues, WhatsApp, blogging, radio and still photos and audio and video recording of the Learning Network Meetings and demonstration site development.

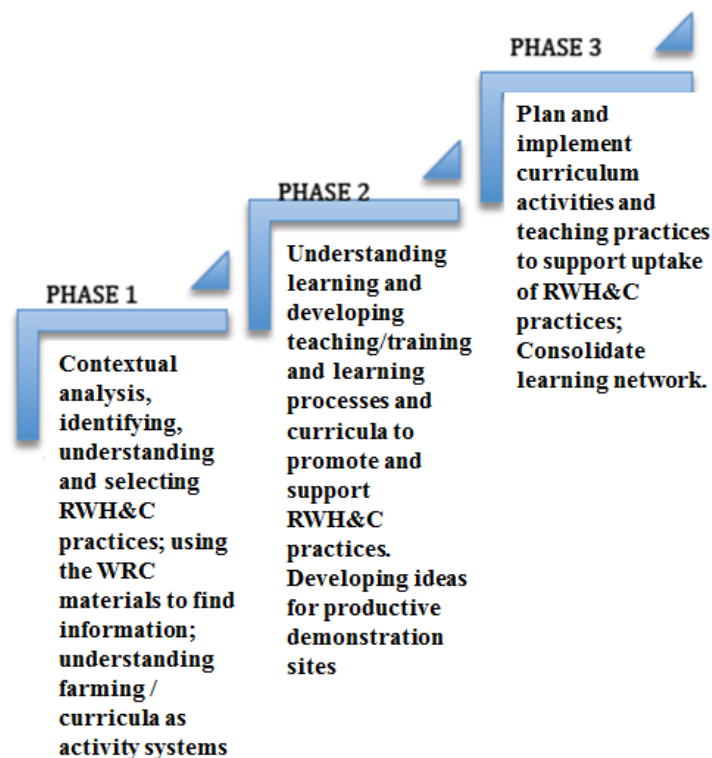


Figure 1: Three Phases of the Training of Trainers Course (learning – practice-learning)

3.2 Timeframe

The timeframe over which the training process will be implemented will require 6 months to complete. This training will include a contact session (Learning Network Meeting) in tandem with the contact course sessions once every one to two (2) months. This is also in accordance with the Rhodes University short course policy for a 12 credit course framework.

3.3 Guidelines for the Training of the Trainers Course

The guiding principle for the Training of the Trainers Course is that of 'work together work away', in which the partners in the Learning Network, under the guidance of the course tutors will discuss the issues associated with the focus of each phase (see below), and then use the outcomes of these discussions, and their learning from them, back to their work context and undertake tasks/assignments.

The Course orientation is strongly informed by the 'Spiral Model for In-Service Professional Development' (Figure 2).

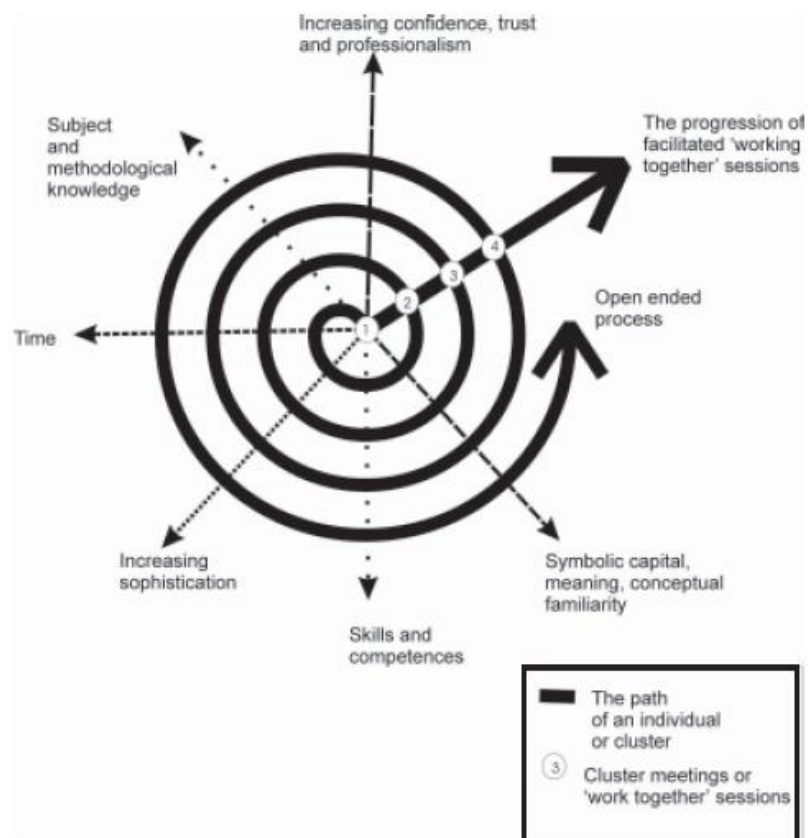


Figure 2: Spiral Model for In-Service Professional Development: Originally developed by Janse van Rensburg (1999) and Lotz (1999) and later framed and further researched by Du Toit and Squazzin (2000) working with Janse van Rensburg & Lotz (2000).

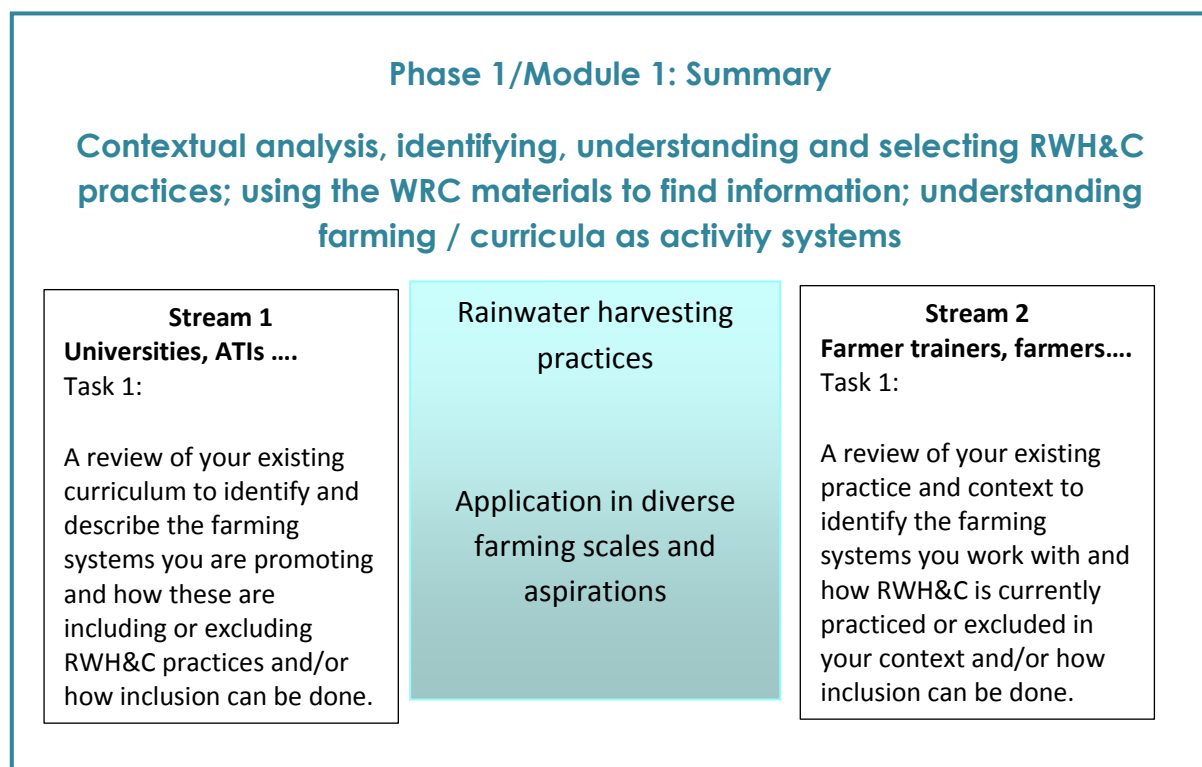
3.4 The Three Phases/Modules

Phase 1, Module 1 – Contextual Profile, Practice Analysis and Learning together

The focus of this phase will be on an analysis of who is doing what in relation to providing farmer support, and in particular what RWH&C practices (if any) are being promoted and implemented or excluded. The analysis will also include a survey of what materials and information are being used in support of practice, and in general where and how course participants access the information they need.

A further component of the analysis will be to determine the nature of any existing relationships between the various partners in the Learning Network.

Task/Assignment – Each course participant will be required to complete a written analysis of their current practice in relation to RWH&C, identifying the partners with whom they are working on this, the practices with which they are involved, and the information and sources of the information they are using to support the practices. If, as is possible, they are not involved in any way in RWH&C, but are interested in becoming involved, they will be required to identify their particular areas of interest, potential partners, and the kinds of information they will require to support them and their partners in this activity. Course participants will also be required to, with support from the tutors, develop curriculum or training programme content appropriate for the practice(s) which they have identified. This Module will also focus on different learning approaches that are appropriate for the teaching and learning of RWH&C practices with different audiences, using expansive learning approaches.



Phase 2, Module 2 – Teaching and learning interactions: sharing information on RWH&C Practices to Include in Curriculum and Training

In this phase the course participants, building on the analysis and collective learning approaches from Phase 1 will identify the potential for the introduction of new RWH&C practices into their activities and/or curricula and training programmes. For these new practices they will identify for whom they might be appropriate, and what role each participant would have in supporting the implementation of the practices. The participants will be supported in developing their ideas for integration of the appropriate information and materials into their education curricula or training programmes.

The second activity in this phase will be the identification of any existing demonstration sites within the area covered by each Learning Network. These will be assessed for their appropriateness (in terms of the practices they demonstrate), accessibility, and the quality of experience they can provide, and where necessary how these can be improved. Practices for which new demonstration sites are needed will then be agreed, and possible locations identified, whether on college grounds or on farmers’ land. Plans will then be drawn up and agreed for the development of these, with specific emphasis on how the WRC materials can be used. Efforts will be made to link up with and expand existing demonstration sites that exist in the education and training facilities and/or on local farming sites.

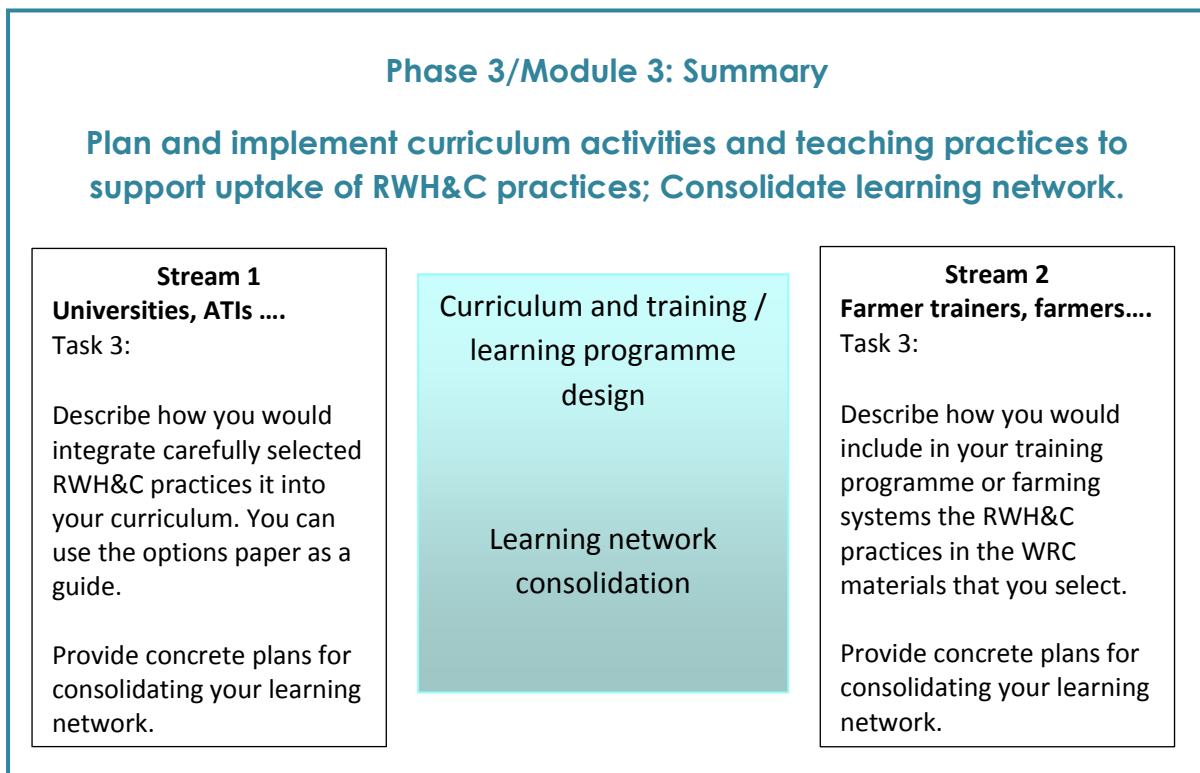
Task/Assignment – Course participants will collaborate in the improvement of existing sites and/or in the development of new sites, and document the process, and their involvement, in detail. They will be supported in capturing the process in video, still photography and audio recordings (for radio use). These processes will be shared on the ‘Amanzi for Food’ website for further use / discussion in relation to the WRC materials and their use.

Phase 2/Module 2: Summary		
Understanding learning and developing teaching/training and learning processes and curricula to promote and support RWH&C practices.		
Developing ideas for productive demonstration sites		
Stream 1 Universities, Colleges (ATIs).... Task 2: Plan the development and use of a productive RWH&C demonstration site with a collaborative team. Describe your own role in this process, and how you can build this process and the use of the site into your RWH&C curriculum.	Teaching / training and learning approaches Productive demonstration site development	Stream 2 Farmer trainers, farmers.... Task 2: Plan the development and use of a productive RWH&C demonstration site with a collaborative team. Describe your own role in this process, and how you can build this process and the use of the site into your training or farming practice.

Phase 3, Module 3 –Plan and Implement Curriculum Activities and Teaching Practices, reflect on expansive learning thus far and concretise plan for networked learning

In this phase, the initial ideas developed in Phase 2 for integration of RWH&C information and materials into education curricula and training programmes will be taken further. The content will have been developed as Task/Assignment 2 by the course participants, and they will now develop clear plans for implementation of these new RWH&C education and training processes, using also the demonstration sites that they would have developed within the Learning Network. The formal education participants (Stream 1) will locate their plans within the broader curriculum processes and accreditation frameworks of their institutions. Participants in the informal sector (Stream 2) will plan for implementation of their RWH&C training processes.

Task/Assignment – Course participants will finalise their plans, and, where possible, embark on their implementation. They will document the implementation processes and the outcomes of these. This may not be immediately possible in the formal education sectors (Stream 1), unless they have opted for developing short courses, and here the participants will ensure the integration of their RWH&C information and materials into the broader institutional curricula. In such cases they will document the process of such integration. In formal education contexts, the proposals for approval by faculty boards and/or curriculum authorities will be used as evidence of learning and change, along with the validity of the potential submission and approvals processes.



All course participants wishing to achieve certification will be required to complete all tasks/assignments successfully. This will involve the submission of written reports on each task/assignment. These reports will be assessed by senior Rhodes University staff from the ELRC associated with the project. The ToT Course tutors will provide support for all participants in undertaking their tasks/assignments.

Certificate awarded on successful completion of all Tasks and full participation in the Learning Network.

Outcomes will be featured on the Amanzi for Food website and in the WRC Water Wheel Magazine and other publications.

4. Learning and Teaching Information and Materials

Most of the learning and teaching materials used throughout the Course, will be based on the WRC materials developed under previous projects. These will be augmented by materials developed by the ELRC specifically to support the learning in the Course, and by additional materials developed through the course process. These will include posters and videos of the specific RWH&C practices with which course participants are involved, as educators or trainers and/or as practitioners. Relevant information and materials from other sources will also be used where appropriate.

Course participants will be provided with hard (printed) copies and/or electronic versions of the main materials, including the key WRC materials. As the ‘Amanzi for Food’ website develops in parallel to the ToT Course, these materials will be made available on the site, together with all newly developed materials.

4.1 Focus on two main sets of WRC Materials and six complementary sets

The Course will focus on the use of the 2 main sets of WRC materials (see comparison in table 1):

- **Water Harvesting and Conservation (WH&C)**
- **Agricultural Water Use in Homestead Gardening Systems (AWHGS)**

Table1: Comparison of WH&C and AWHGS Materials

Aspect	Water Harvesting and Conservation	Agricultural Water Use in Homestead Garden Systems
Ultimate beneficiaries	Small-scale and emerging commercial farmers engaged in cropland (vegetable) production	Homestead level subsistence farmers/gardeners

Principal users (facilitators of the materials)	Agricultural College lecturers, accredited training providers	Extension officers, Non-governmental organisations (NGOs) and community-based organisations (CBOs)
Uses of the materials	Either in their entirety or selection of different components	Either in their entirety or selection of different components according to context and need
Educational sector	Formal – FET, particularly agricultural colleges, possibly HET	Informal currently. Potential for integration into agricultural college curricula, and adoption by DoA (AET Strategy) and DWA (for IWRM training), also TUT short courses
Educational Level	New NQF Level 5/6	No level specified
Development and piloting	High-level technical and facilitation team, Consultative Development, drawing on existing sources. One pilot, no indication of refinements as a result of this	Broad-based high level technical and facilitation team, Participatory Process, drawing on existing sources, practitioner expertise, consultations and observations. Two pilot, extensive refinements as a result
Content	Very water focussed, with one chapter on soils, and two on WHC (Planning and Methods)	Very broad – all aspects of small-scale vegetable production. One chapter on Garden and Homestead Water Management, a second on Soil and Water

The demonstration sites, and the documentation and recording of their development and use will also add to the store of information available to course participants, and, through the website, to anyone interested in RWH&C practices. Participants will be encouraged to document the development of their demonstration sites via photos, video and text.

As the ToT Course evolves, participants will be encouraged both to use whatever information and materials are available, on the website or elsewhere, and also to contribute to the development of new materials that could be useful for them in their context, and for others in similar contexts.

The other six sets of materials have been reviewed and their summaries are provided in appendix A for your information.

5. Language of the Course

As the Course will be run at NQF Levels 5 and 6, the materials and the facilitation will be primarily in English. There will however always be the opportunity for translation of key ideas and internal interpretation of discussions into other official local languages to ensure effective dialogue.

There is also the issue of the specific language and the terms used in discussions about RWH&C. As with all specialist areas of study, there are often words used that are not always well understood by people not involved in those areas. For example, in this ‘Orientation’ and Framework (guidance) the word ‘practices’ is used in different places to describe what we do in terms of the technical methods we use to harvest, store and use

water (RWH&C practices), and also in the methods (teaching practices) we use to teach people. Care will be taken both in the module texts and by the tutors to explain the meaning of any words that may not be familiar.

Also, although their use will be avoided where possible, it will sometimes be necessary to use 'acronyms' (the initial letters of a phrase or title), such as RWH&C (Rainwater Harvesting and Conservation), in order to save space and too much repetition of long titles. Care again will be taken to make sure that everyone is comfortable with the use of the more common acronyms.

Welcome to the Amanzi for Food Training of Trainers Course!