

THE  
**MVULA**  
**TRUST**

SOUTH AFRICA'S LEADING WATER AND SANITATION NGO

## **Rain water harvesting at household level for food security**

South African experiences with community participation and stakeholder empowerment processes



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# The Mvula Trust is...

- A large (South African) water and sanitation NGO
- Implementing water supply and sanitation services in rural South African areas (for municipalities) – our core activity since 1993
- In recent years, diversifying into, and focusing on, activities related to livelihoods



# The Mvula Trust's strengths

- Its organisational set-up: 7 (soon 8) Regional Offices (implementers) and 1 Policy Unit (strategic direction and policy development and influence)
- Specific focus on community engagement and empowerment, health and hygiene awareness raising and capacity building when implementing (technical) projects.



# SA RWH context

- Average rainfall 450 mm/a
- Strong seasonality and high within-season variability
- Historic population spread
- Surface water highly developed and in most cases (over)allocated
- Still large areas without appropriate water and sanitation services (rural areas and informal settlements)



# DWAF's "RWH for food security" project

- DWAF = Department of Water Affairs and Forestry
- Rationale for the project:
  - Achieving MDGs, specifically the reduction of people who suffer from hunger and/or malnutrition.
  - Reduce dependency on grants and reduce the amount of money households spend on buying food (usually about 25% of their income - leaving more money for education, health care, etc.)



# DWAF's "RWH for food security" project (2)

- Provide access to water to the household to enable poor households to grow fresh food at home, year-round, to create a constant supply of micro-nutrients at home to prevent stunting in infants and toddlers before they reach school-going age, and thus in the years before they can start benefiting from school nutrition programmes.



# DWAF's "RWH for food security" project (3)

- Foundation for implementation: roots in South Africa's National Water Act (Act No 36 of 1998)
  - Schedule 1 of the NWA provides for storing and using run-off water from a roof and allows the use of water resources without a license for "small gardening not for commercial purposes".
  - Under Section 61 and 62 of the Act, the Minister of Water Affairs and Forestry may give financial assistance in the form of grants, loans and subsidies.



# DWAF's "RWH for food security" project (4)

- Focus on
  - “Poorest of the poor”;
  - Household gardens;
  - Interventions at household level (not communal);
  - Building of large underground RWH tanks (30 kl);
  - Coupled with food gardening training and empowerment;
  - Community contribution.



# Household selection methodology

- **Consultations** with relevant stakeholders
- **Village scoping** using limited participatory methods such as community meetings, focus group discussions and transect walks;
- **Identification of community members willing to drive** the participation and implementation processes at the local level; and
- **Identification of households** (by the community structure) willing to participate in the rain water harvesting and food security programme.



# Reasoning behind methodology

- Consolidation of the initiation process to ensure that all stakeholders understand the objectives of the programme and to cultivate a supportive community that is well-informed of its objectives.
- An understanding and commitment of each participating household to the following:
  - The reasons why the government assists households to improve household food security through the RWH project;
  - The importance of good nutrition and hygiene;
  - That it is the decision and responsibility of the household to motivate the construction of a RWH system;
  - That the household contribute towards the construction of the RWH system by being responsible for digging of the pit and preparation of the terrain
  - That cleaning and maintenance of the system is the responsibility of the household.
- Establishment of a community based structure that will drive the implementation process at the local level



# Mvula's pilot sites (demonstration phase)

- Bityi-Matheko – province of the Eastern Cape
- Manamela – province of Limpopo
- Bolobedu-Mawa – province of Limpopo, currently also part of expansion phase.
- 5 tanks were built at each site.

# Outcomes of household selection process

- Bityi: none of the households can be classified as vulnerable or “poorest of the poor” (also one sub-headman received a RWH tank);
- Manamela: one beneficiary can be classified as vulnerable (other beneficiaries were three relatives of the chief and a family running a nursery); and
- Mawa: three households can be classified as vulnerable (the other household is relatively well-off and the fifth beneficiary is the school).



# Analysis of the household selection process

- Two other selection criteria had become more important in the selection process: the willingness to contribute in kind, and proven interest in food gardening.
- The practice of communities selecting the beneficiaries led to another deviation from selecting the poorest of the poor: people close to those in power were beneficiaries.



# Did the process make sense: evaluation

- As the follow-up phases to the project intend to benefit more people, the more vulnerable households, it does not necessarily have to be a negative outcome if the households receiving tanks during the Demonstration Phase were not the “poorest of the poor”.
- However, this reasoning can only be sustained if these households do indeed use the RWH tanks effectively for food gardening, showing what is possible with RWH tanks



# Evaluation: use of the tanks

- In each community, 1 out of 5 tanks is used “effectively” i.e. for its intended use (intensive food/vegetable garden) and to its capacity.
- Common factors of success:
  - Successful households understand they need to work “with the water” in order to make their RWH tanks work. Field visits showed that those households dedicated to using their tank effectively, made sure it collected enough water through inventive methods. In many cases, their tanks were built in similar positions and with the same designs as those tanks that were “not working”.
  - The successful households were most committed to digging pits and supplying water for building activities. These households obviously saw the advantages of the project and were more interested in maintaining and expanding their (existing) gardens than simply receiving a RWH tank









# Conclusions and recommendations for expansion phase

- Raise awareness about the use of a RWH tank within the larger permaculture system – before the tank is built.
- The household selection process: set up community structures to identify vulnerable households, start the project with food gardening (training, provision of seeds and tools, extension support) during the “rainy season” (summer) and based on these two outcomes, select beneficiaries. Projects should take a holistic view of food gardening, with RWH tanks being one component – not the ultimate aim.
- Intensive guidance in developing water management plans for gardens and assistance with making the tanks work. Successful households to educate and inform their fellow community members – internally-driven aspect.
- The community contribution cannot be compromised.



# Recommendations

- Integrated approach: water management plans;
- Shift to implementing RWH as a **process** not a **project**;
- Not just for “poorest of the poor” (to avoid stigmatization);
- More focus on peer-to-peer learning and community structures (“garden learning groups”).



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