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## Accepted water resource management practices

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## Accepted water resource management practices



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HIGH POPULATION GROWTH rates, rapid urbanisation, unsustainable exploitation of water resources for industrial and agricultural purposes, as well as the continued degradation of freshwater resources through waste discharges, are but some of the factors which have in the past led to improper water resource management (WRM) in many developing countries. Over the water decade (and thereafter), integrated water resource management has featured prominently at a number of global meetings, conferences and symposia (e.g. the 1992 Rio de Janeiro Earth Summit) resulting in the international acceptance and recognition of a number of primary WRM principles and approaches for the potable water supply and sanitation sector. These principles can now form the basis for sound integrated WRM when water and sanitation projects are developed.

Findings from a participative assessment - carried out on two Mvula Trust funded projects in the Mpumalanga Province - to evaluate the implementation of these WRM principles, indicate a very encouraging degree of adherence. However, problems such as the need to carry out need assessments and thence the tailoring of training capacity building programmes to suit the local project. The WRM principle that "efficient water use is essential and often an important water resource" could never be truer as this part of the country is very water scarce. The paper also makes a suggestion that whilst delivery is the primary objective, planners and implementing agents need to consciously incorporate WRM planning considerations when implementing new projects.

### The Mvula Trust

The Mvula Trust is an independent funding agency with a mandate to support sustainable water and sanitation service development amongst poor and disadvantaged rural South Africans. The Trust works in close partnership with the Department of Water Affairs and Forestry (DWAFF), with whom it has a collaborative agreement and whose representatives sit on the Board of Trustees, the Department of Constitutional Development (DCD), and other governmental and independent South African agencies. It also has the support of several international agencies.

The Trust operates a demand-responsive fund for community-managed water and sanitation projects (CWSS) and is presently implementing over 300 such projects. The principle areas of operation are in the provinces where

water and sanitation services are inadequate, namely the Eastern Cape, Kwazulu-Natal, Mpumalanga and the Northern Province. Each of these provinces has an office staffed by engineers and social scientists responsible for supervision of project implementation. In addition, the Trust has a head office (located in Gauteng) which implements various research and policy related projects. Consequently, the Trust has made a significant contribution towards policy development and capacity building through implementation of innovative micro-policies, pilot project development and capacity building activities.

A central concern in the CWSS sector is the sustainability of projects - clearly, without ownership, long term sustainability is unlikely. It is precisely because of this concern that the Trust only involves itself in projects where the communities demonstrate a desire to be partners throughout the project development cycle. To enhance this partnership, the Trust allocates, as a matter of policy, a significant amount of a project budget towards training and capacity building.

### A Mvula Trust project development cycle

Mvula Trust projects are initiated through applications from rural communities requesting assistance with the development of their water and/or sanitation requirements. Having received the application, the Trust facilitates contact with appropriate project agents who assist communities with the production of a feasibility report and with the awareness of its required institutional arrangements. Thereafter, the Trust will allocate a socio-technical team to further facilitate the project development which will eventually culminate in a contract between the Water/Sanitation Committee and the Trust.

Once the contract has been signed, a training agent is employed by the committee to ensure that the requisite capacity building takes place. Having completed the training, the infrastructure development takes place and progresses to completion with the committee taking the lead and the project agent/training agent/Mvula Trust tripartite providing close support.

As a project develops, key institutional issues which the Trust monitors are:

- The Water/Sanitation Committee remains representative of, and accountable to, the community.
- Communication channels between the committee and the entire community are discernible.
- Some sort of gender balance is apparent.

## The UNDP/IRC on promising water resource management approaches

The Mvula Trust has recently participated in an international programme led by the International Water and Sanitation Centre (IRC) which compares various experiences in water resource management practices in the developing world. The aim of the programme is to identify the more promising approaches in order to disseminate these into the rest of the sector for consideration where applicable.

The approaches are based on a refined set of internationally accepted WRM principles which have emerged over the water decade and thereafter. These principles can be listed as follows:

- Water source and catchment protection are essential.
- Adequate water allocation needs to be agreed upon between stakeholders within a national framework.
- Efficient water use is essential and often an important water source.
- Management needs to be taken care of at the lowest appropriate levels.
- Involvement of all stakeholders is required.
- Striking a gender balance is needed as activities relate to different roles of men and women.
- Skills development are the key to sustainability.
- Water is treated as having an economic and social value.

In order to carry out the assessment, the Trust identified two water supply projects in the Mpumalanga Province which could be used to evaluate to what degree the above principles have been applied, as well as to establish any modifications in application due to the particular circumstances which prevail in the project areas.

The methodology used was participative, utilising interviews with different stakeholders in each project. Stakeholders were identified as groups of either women, men, farmers, the tribal authority, the project agents, project funders, etc.

## Assessment findings

### Principle 1

The general response from all the stakeholder groups was one of agreement with the principle as all people realise the importance water quality and quantity. However, there are still some contentious practices prevalent which lead to water degradation. An example is the practice of washing of clothes in local rivers. This is clearly a practice which does not necessarily have alternatives (other than education or the possible demarcation of specific areas along river sections where this can be allowed).

The issue of burning of grass and trees was also raised. This is again an education issue which reinforces the notion that development should be managed in an integrated and holistic manner i.e. agricultural practices can, and often do, have an impact on water resource issues.

### Principle 2

Again stakeholders were in agreement with the principle. However, putting it in practice is a different story. It was felt that there were no effective mechanisms in place to effect the principle, especially prior to the advent of the Mvula Trust projects. This was voiced mainly by individual households who felt that other groups like farmers who had pumping equipment, were adequately allocated as they basically allocate to themselves. However, as individuals it was difficult to raise WRM issues in an effective way. The advent of the water committees facilitated by the Mvula Trust now made it possible to raise issues with a better chance that they would get addressed.

### Principle 3

There were mixed feelings about this principle. Some people felt that water is used efficiently by people in the community. The one committee felt that there is still a great deal more that people can do to improve on water use efficiently. They felt that livestock owners frequently wasted too much water on their cattle resulting in shortages for human consumption.

Another issue which was identified was the need for the optimisation of standpoint design so that the tap heights were decided in consultation with the community. An example was cited where children find tapstands so high that once they manage to get them open, they do not bother to close them, with a resultant wastage in water.

A solution cited was house connections as opposed to shared standpoints. More education on water use efficiency was also agreed as a possible solution to the problem.

### Principle 4

In both cases the responsibility for various aspects of the water supply rests with DWAF, the Water Committees, and/or the Project Steering Committee, and the Transitional Local Authority. It is envisaged that the latter will assume management once the schemes are complete and/or they have also gained the necessary capacity. It was, therefore difficult to exactly gauge the compliance to the principle at this stage.

### Principle 5

Until about 1995 ordinary community people were not involved in development issues and priorities. With the advent of the Reconstruction and Development Programme (RDP), a committee forum – the Reconstruction and Development Committee (RDC) – was created which is representative of the various stakeholder interests. The water committees which facilitated the development of the projects presently under review for compliance to WRM principles, further have RDC representation – a process which further facilitates all stakeholder involvement.

### Principle 6

In terms of numbers, the genders were found to be more or less balanced in the project committees and RDC's. However, (predictably?) women are not as actively involved in

the decision-making process as are men. Worse still, they do not do much talking in meetings, and when they do, they often need to be prompted. Clearly, project planners and facilitators still need to worry more about the mechanisms needed which will ensure that women will become more involved in the entire development of a scheme.

Everyone agreed about the suitability of the meeting times (i.e., there is no gender being disadvantaged through the staging of crucial meetings during inconvenient times for that particular gender).

**Principle 7**

Interviewees agreed fully with the principle but added that the training should be specific to their particular circumstances and should ideally be preceded by a needs assessment analysis.

**Principle 8**

Participants agreed to the principle but observed that payment for water is not going well due mainly to a lack of efficient tariffing and collection systems.

There was a general feeling that there is a need for cross subsidisation in order to avail the more economically disadvantaged with more than just drinking water facilities.

**Conclusion**

The assessment carried out on two Mvula Trust projects showed an encouraging adherence to accepted WRM principles even though most of these were not consciously or explicitly stated in project design. In some cases, all stakeholders agreed with a certain principle only to find that it still not fully implemented on the ground for various reasons such as capacity, enabling mechanisms and general awareness. Generally, in the Mvula Trust and the country as a whole, the primary focus is on delivery. In order sustainable integrated development to take place, implementing organisations planners and engineers need also to make a conscious effort to incorporate these principles during the entire project development cycle.

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