IWRM Action Hub

CASE STUDY

Swaziland: Application of IWRM at a community level in KaLanga

Unclear ownership and no formal mechanism to manage the water source of the Mvutjini earth dam have caused unfavourable conditions for the local community. Action was taken to implement IWRM by the Swaziland Country Water Partnership, aiming to revitalise the dam and set up management rules by involving local stakeholders. This case study illustrates that collaboration and partnership between institutions involved in water resources management is vital for success.

Background

The Mvutjini earth dam is located at KaLanga area within the Makhondvolwane community in the central Lowveld of Swaziland. The dam is an only source of water for four communities namely, KaLanga, Matsetsa, Mpolonjeni and Mangolweni in the Lubombo Region (administrative).

The KaLanga area is characterized by a rural, subsistence farming and small scale (traditional) livestock rearing community. The Makhondvolwane (Mvutjini) dam was constructed in 1973 by the Swaziland Government's Ministry of Agriculture with the intention to supply water to a 100ha farm and for livestock purposes. Efforts were made to provide safe water through a water scheme by Rural Water Resources Branch of the Ministry of Natural Resources and Energy.

Overall, there has been lack of a comprehensive water management approach at KaLanga. Consequently, the dam had become heavily polluted, silted and had been "shrinking in size" over the years. Over the time, unclear ownership, and no formal mechanism to manage the water source caused unfavorable conditions for the local community.

About 65% of the household population used unimproved sources of water a reason attributed to no availability of other sources of clean water. Women and children have been at the receiving end of the lack of a comprehensive approach to managing the KaLanga water resource with most of the women walking distances to fetch the polluted water from the dam while "competing" with livestock for the same water. Children treat the earth dam as a "swimming pool" while drinking from the same source. On another note, women spend additional hours attending to children and other family members suffering from diarrhoea diseases. The baseline survey indicated that about 48 % of the total population most of whom are located upstream had no access to proper sanitation facilities and instead they use the bush.

Conflicts had arisen with various stakeholder groups accusing each other of either "stealing" the water, polluting or depleting the fish resources in the Mvutjini dam. There was no attempt to address serious problems that included human and livestock pollution of

the dam, deteriorating health situation and overexploitation of the water source. There has been no formal mechanism for management of the water source and stakeholders had not met to address the problem.

Actions taken

Under the PAWD program, the Swaziland Country Water Partnership embarked on an IWRM demonstration project to “test” the applicability of IWRM principles on the ground. The project aimed to revitalize the dam and set up management rules. The demonstration project is an initiative to integrate water into poverty reduction at a local and practical level.

Involvement of stakeholders from governmental bodies, NGOs and local dwellers was ensured through community meetings. Both, technical and institutional measures were implemented. A bio-physical and socio-economic situational study that included the collection of hydrological, physiographic, demographic and socio-economic data, through setting up a Geographic Information System (GIS) for routine data assembly and reporting was conducted by AfroGIS a local consultant funded under the PAWD project. The KaLanga community was assisted to formulate a Project Monitoring and Evaluation Plan.

Important element of the project included the training and education of the local community. In KaLanga community, the involvement of youth was recognized an important element to achieve sustainable results. Also, changing in social behavior depends on ability to solve conflicts. Conflict resolution techniques were applied. Several conflicts and disputes were held during the project implementation.

Regulatory instruments used in the Ka-Langa project included self and social regulation which were applied concurrently. During project inception, the community drafted and adopted a project constitution (self-regulation), a document that served as an overall regulating and governing document. The statutes provided rules of the game and prescribed fines and penalties for non-compliance. On the other hand, small fines were charged for absenteeism and late coming for meetings or project work. The imposition of fines resulted in positive change on behavior towards project participation and meetings attendance.

The project involved:

- The construction of drinking troughs for cattle to eliminate the current water pollution caused by sharing water use with livestock
- The construction of sanitation facilities viz. laundry areas, showers, and pit latrines to control other polluting activities by the community
- Setting up of an irrigation infrastructure and rehabilitation of the agriculture scheme that the dam was originally intended for
- Prospecting and drilling of boreholes in suitable sites to enhance potable water supply in the communities
- Protection of a spring at the earth dam’s head waters by fencing it to minimize pollution and prevent access by animals
- Setting up of standpipes for the supply of potable water at the dam site depending on whether the water from the dam meets safe water quality standards.
- Capacity building through training and awareness creation, and skills transfer on issues of water and institutional management.

- The construction of a low-level bridge across the earth dam for purpose of access to opposite reaches of the earth dam.

Outcomes

Key conflicts were identified. Major goals set with the community were achieved. As a result of this demonstration project the earth dam was fenced and trees cleared within the buffer zone, animal drinking troughs built, boreholes were installed after additional resources were sourced, an organized gardening scheme was created, and sanitary facilities were built in homesteads.

Two years down the line the KaLanga Demonstration project has yielded successful tangible deliverables as planned from the onset of the project with the community and they include the following:

1. 1Three boreholes (all with funding sources outside the PAWD II project)
2. Homestead water harvesters –108
3. Two livestock drinking troughs
4. Homestead VIP toilets – 96 (only about ten homesteads still had not constructed toilets)
5. Fencing a garden scheme
6. Protection and fencing of a spring at the earth dam’s head waters
7. Fencing of the Dam to fend off livestock

The project demonstrates that multi-stakeholder dialogue is a basic requirement for the solution of problems involving different perspectives and priorities. The process of developing consensus is difficult to build but is usually the most important. The Water Act and Water Policy including the IWRM Master Plan already contain IWRM principles, but still, practical implementation of these principles has encountered several challenges. The IWRM demonstration Project provides a good illustration of how effective co-operative links/partnerships can be established between the government and the non-government organisations for the solution of water related problem s involving, by definition, different perspectives and priorities. This indicates that there is always a need for a group of key players who can act as catalysts for change, motivated and influential enough to obtain government and local community endorsement of the project.

The SZWP as a neutral platform has proven to be instrumental in winning and maintaining community interest, involvement and support because of the participatory approach used. Public awareness and multi-stakeholder participation is a must to ensure acceptance by the public and the various government levels. The case of KaLanga demonstrates that IWRM is actually a process for better management of water resources and encompasses governance, stakeholder participation and balancing development with resource sustainability.

Lessons Learned

Collaboration and partnering between institutions involved in water resources management is vital and tends to be efficient as these share different skills, experiences, knowledge, and resources. This was observed when various implementing partners worked in partnership forging alliances.

Early inclusion of local traditional authorities cannot be overlooked. They ensure project acceptance, ownership, and are important to build upon existing institutions. Community conflicts can be handled well when the local authority is involved from the beginning.

"Quick wins" help in creating commitment and ownership, but the participatory planning process cannot be done without facing challenges. Start implementing IWRM at small scale since outputs are easy to realize and it is easy to build upon lessons learnt.

Financial resources mobilisation is still an issue that requires attention since it becomes an impediment to development initiatives as observed in the KaLanga IWRM project in the effort to construct a cross over bridge.

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Multi-Stakeholder Partnerships
Youth Engagement and Empowerment
Conflict Management
