Introduction

Rainwater harvesting in Zambia is a new concept practised by a handful of farmers in the rural areas. Traditionally, rainwater is harvested either directly in an open bucket or indirectly through shallow wells dug along the riverbanks mainly for domestic purposes. Unlike in the past when only male oriented projects on rainwater where organised, the need to include women who are indeed the main users of domestic water has been identified.

The needs of women and men regarding water differ vastly in a developing country where traditions and culture does not recognise the voice and problems of women. Women like men are fighting to have access to and control of resources such as water, and to be able to make decisions, both at community and household levels.

A successful integrated water resource management should call for a cross sectional approach to the planning, development use and protection of water resources. Training in rainwater management should take into consideration the gender differences and inequalities, if development interventions are to be effective.

Cross Sectional Approach

We have formed the Zambia Rain Water Harvesting association. The association is there for purposes of assisting organisations to implement effective Rainwater harvesting structures in the communities. The organisation also works as a networking agency with various public and community based organisations that are working towards the improvement of the livelihood of the people.

The Association has trained farmers both men and women in domestic rainwater harvesting. The training was also extended to members of Ministry of Agriculture Food and Fisheries (MAFF), who are stationed in the most parts of the country. These act as focal point persons and facilitators for the communities.

An assessment of rainwater harvesting practices in Zambia has revealed that less than five percent of the farmers in the Southern, Eastern, Central and Lusaka provinces, practice modern/introduced rainwater harvesting technologies at household level.

The main practices at household level include:-
- Roof Catchment systems with either a standing Ferro-cement or brick tank or an underground tank,
- Fishponds with rainwater harvested from the roof, road or natural spring, where runoff is collected from a roof, road or natural spring and channelled to recharge the pond,
Community rainwater harvesting systems, level bunds on cultivated land to prevent runoff as well as through the infiltration/retention ditches with rainwater harvested from an upper catchment or road.

The highest cost so far recorded of putting up a domestic rainwater harvesting structure is on average 210 United States dollars. The training that was conducted for the construction of domestic rainwater harvesting structures using Ferro cement, in the Southern Province of Zambia for female farmers, cost an estimated 250 United States dollars.

Challenges

As in most parts of the country, the collection and use of water is a woman’s responsibility. The challenges that we faced and that was brought up by the women in the communities who were trained in this technology was on the actual cost of the material needed in the construction. Most women in the communities do not have enough out put in terms of farm produce to sell and raise income, which would later be utilised to purchase material needed to build the tanks.

Another challenge also lies in the fact that, since the women are the sole custodians of water, the men in the households or community, might not find it a priority to put up a rainwater harvesting structure. Even if there is enough income in the home, most women do not have decision-making privileges in the home to influence the men to consider a harvesting tank.

Another challenge also lies in finding technologies that uses the locally available resources and also how to adapt technologies to suit the local community needs. Firstly, the technologies that have so far been used here in Zambia need materials to be purchased. This in it self is not sustainable here in Zambia as the majority of the users of water are women who have little or no access to income, both at household and community levels.

Secondly, the technologies used are those, which are proven beyond doubt that they are effective, but there has not been any effort to try and adapt them to the way of life and the living conditions of the majority of the Zambians. In most parts of the country, the houses are grass thatched as few can afford iron sheets. This is where the greatest challenge lies for the women of our communities. The use of the polythene sheet has been suggested, but the actual effectiveness and success story of this is yet to be proven and sold to the majority of the Zambian women walking long distances in search of water for domestic use.

Opportunities

As a starting point, we know that people have different needs, interests and access to and control of resources such as water, we need an integrated approach to recognise these differences and priorities they create for women and men.

The Zambia Rainwater Harvesting association which is in place has a cross sectional approach to the planning, development use and protection of water resources. This integrated approach combines institutional, social, gender and economic aspects with technical analysis and problem solving, presenting opportunities for people centred programming that responds to the various needs of all on an equitable basis.
Gender differences and inequalities will be taken into consideration if development interventions are to be effective in serving the needs of women as well as men. Areas where the opportunities could be explored include the household and the community approach where the community with particular emphasis on the men will be targeted in the need to tap rainwater within their homes and make it available for domestic and other uses.

Other opportunities are those, which are found within the communities where we are working. We should try by all means to make use of the locally available resources, and also accommodate knowledge of the indigenous people in the already existing technologies, at the same time exploring other technologies.

**Conclusion**

To incorporate gender into water resources management will need one to pay attention to the complex relationship between productive and domestic uses of water resources, to the importance of participation in decision making for all.

Rainwater harvesting activities were not co-ordinated in a systematic way in the past due to lack of a Rainwater harvesting association. However, as the association is now in place the challenge remains to implement activities in this area that will help in the uplifting of the livelihoods of the people, and relieve the burden from women who usually walk long distances in search of water.

Although government ministries such as the Ministry of Agriculture, Food and Fisheries (MAFF) have demonstrated rainwater-harvesting technologies, there exists no clear government policy on rainwater harvesting, which will be one of the areas in which the association will lobby the government to come up with a favourable policy.

There is need to carry out research on alternative catchment. Most rural dwellers have grass-thatched houses, which do not provide a good roof catchment, which without suitable adaptable indigenous technology, will not be adopted by the communities.