

Multiple Use Water Services

Tuesday 22 August, 2006



"We cannot do rural water supply projects without considering productive uses.....we should realise this in the same way that we learnt that sanitation had to be integrated with water supply in the 1980s."....."The fact that we don't ... is linked to the problem of having a single, narrow Millennium Development Goal for water."

Ede Jorge Ijiasz, Water and Sanitation Programme at the 4th World Water Forum, Mexico

We can do better in the water sector: better by delivering water services that match peoples' needs for access to water. These are not just for domestic consumption or field-scale irrigation, but also small-scale productive uses and micro-enterprises like backyard gardening, livestock keeping, and food processing. Properly targeted measures meeting such needs can help the water sector to tackle poverty and support livelihoods. This side event convened by partners of the PRODWAT thematic group (www.prodwat.watsan.net) and the Multiple Uses Systems (www.musproject.net) project aimed to help promote the delivery of multiple use water services. The main intended outcome was an expanded thematic group of organisations that are trying to deliver such services.

The participants were:

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1. The issues

The first part of the agenda focused on reviewing what we already know, and keeping ourselves informed of on-going initiatives.

- A video presentation (5 mins) with stories from Kenya, India and Zimbabwe was used to illustrate examples of small-scale productive uses of water and how these contribute to livelihoods. The video is available from John Butterworth (butterworth@irc.nl)
- Two stories from Colombia (Ines Restrepo-Tarquino) and Ethiopia (Eline Boelee) further highlighted the issues. You can read these at Annex 1.

- A presentation by John Butterworth then reviewed some of what we already know from PRODWAT and MUS project research and activities on this theme (available at www.prodwat.watsan.net/page/656)

2. Discussion

Some of the main points from the discussion were:

- No one doubts multiple use approaches any more, it is common sense. But the problem is structural and people do not get these kind of services. Action research is needed, learning by doing, and this is the focus of the MUS project. Advocacy at the international level is critical for scaling up and that is where this meeting plays a role (Barbara van Koppen)
- PumpAid reach 0.5 million people. Rope pumps (all in) cost US\$500 per well and pump, and the incremental margin from including a productive element is estimated at US\$375. These activities can pay for the system in a year and a half. PumpAid also focus on schools so there is a potentially large multiplier effect in terms of people reached (Ian Thorpe)
- Q: Should we focus on promoting the mus concept at a high level and policy change towards more mainstream adoption of the approach, or rather an incremental step-wise approach (e.g. helping implementers like UNICEF add value)? (Mary Renwick)
- We have become rather donor driven. We shouldn't assume everything happens through aid. It doesn't in the irrigation sector. Irrigation now also focuses on rehabilitation rather than planning new schemes. This is an opportunity to address multiple use issues. We should focus on more use per drop rather than more crop per crop. We also have to address sustainability of systems and here, mus also helps. (Peter Lee)
- USAID are working on household health and needs beyond handwashing, sanitation etc. Other household needs like nutrition are important, and we are looking at integration.
- WASH projects usually do not make a good business case for themselves. We should be better at marketing the benefits of WASH and how mus helps to broaden the benefits. (Catarina Fonseca)
- Grey water reuse and ecosan should be more integrated in mus approaches (Carolien van der Voorden)
- PumpAid are experimenting with just urine diversion and use initially. Half your nutritional needs can be met from your own urine! (Ian Thorpe)
- In Vietnam we are trying to make the economic case. But the response from people is that you cannot reduce this all to economics. We will present a paper at the WEDC conference in November, and the WaterAid paper everyone is a winner is also relevant (Stacey Noel)
- We have to convince financiers, not engineers (Catarina Fonseca) and we have to show while water is a good investment compared to other options (Stacey Noel)
- In April, in Washington we held a meeting to try and stimulate US based organizations to work on these water and livelihood issues. We also did a 7 country survey where in every case water was being used for multiple uses. We are writing this up now. We have also developed a concept note for a follow up project based upon a partnership model with IRC, Winrock, and IWMI. We would like to work with more partners also. It includes components on implementation by funding incremental costs (money routed to communities rather than big implementers) and building up the knowledge base. Generally we see very weak capability in research and we face huge documentation challenges. We are also doing some number crunching using country level data from secondary sources to show the potential of mus approaches. (Mary Renwick)
- The mus project has tried to systematize some of these knowledge based upon principles for mus (Barbara van Koppen)
- You should be making the case to national governments. You have enough proof that mus approaches add value. You should focus at national level (Carolien van der Voorden)
- Q: how to take the effort to a more national level?

- The GWP have also supported our efforts (Barbara van Koppen), although they are often not strong at national level (Katy Welle)
- Your data is rather anecdotal. You have to convince doubters. We need more cases. Where for example were the livestock? (Peter Lee)
- A key issue is to build capacity with implementers. They just know how to supply drinking water. They don't know how to do mus (Isabel Dominguez)
- You are preaching to the converted (this group) but better research is needed to convince others (e.g. others in the ICID community) (Peter Lee)
- We should be working much more with large implementers, Unicef, Plan, CARE, more governments, irrigation (Catarina Fonseca)
- In Laos we will hold a seminar focusing on mus and will aim to get better information on what we know including costs and benefits. There will be an open call for abstracts. (Eline Boelee)

3. Conclusion

- All the materials from the session will be made available at www.prodwat.watsan.net
- Over the next few weeks the PRODWAT group will be renamed as the multiple use water services (mus) group to reflect the broad focus of the group which includes organizations from both the domestic and irrigation sectors.
- All participants will receive the next newsletter and are invited to actively participate in group activities.
- Thank you!

Note: The MUS project is funded by the CGIAR Challenge Program Water and Food and led by the International Water Management Institute (IWMI). The PRODWAT group is funded by the IRC International Water and Sanitation Centre and the contributions of many partners.

Annex 1: Stories

Multiple Use of Water in Legedini, Eastern Harerghe, Ethiopia

In 2002 a borehole with diesel pump was installed in the central village of Ajo. Later this was extended with several reservoirs and a network to reach the hamlets of Hallo, Edo and Edo Bolo as well. The improved water supply was used for domestic purposes, including the watering of small and dairy animals that are kept near the house. The increased availability of water had positive impacts on livestock. Animals could now drink twice a day instead of once every two days. Because they do not have to walk so far, the number of spontaneous abortions diminished, especially among cows. They have better appetite and combined with the higher water intake this leads to higher milk production per animal. Now women can sell 0.5 – 0.75 liters of milk per day in the market. The extra income is spent on the household.

After a breakdown of the system early 2005, the pump was repaired and now enables people to irrigate papayas (for the local market and home consumption: main source of vitamin A) and vegetables. By setting up a water committee, the community gained access to banks as a new way of saving instead of keeping livestock as assets.

The community members stated that a multiple use approach to water is the only way to manage limited supplies in an arid environment. In Ethiopia, livestock water requirements often have priority even over drinking for people but this is not always recognized by conventional water planners. The system in Ajo allows for all sorts of water use as identified by the community and can easily be extended and upgraded over time. Though the cost of pumping are high and fuel is not always easy to obtain in this remote area (has to be transported by donkey on a bad road), users are interested in contributing local material, labor and even cash to further develop the water supply.

Eline Boelee (IWMI) based on work by Esther van Hoeve, Pauline Scheelbeek, Martine Jeths and Desalegne Simachew

Multiple Use of Water in La Palma – Tres Puertas water supply system in Valle del Cauca, Colombia

Our entire lives, we have been suffering from water scarcity, we have learned to save water and to use it efficiently in order to make it enough for cooking, cleaning, drinking, for our animals and crops... we have even replaced our coffee crops for less water demanding crops like pineapple because so much water is needed for coffee processing... we know that we can do nothing without water...

The caretaker said 'I just can give water for two hours, every two days, each sector... there are eleven sectors, it is very difficult to provide the water, and there are some parts where people open the taps and they just get a little water... that is useless for them...

A social worker with the PAAR Programme says they are going to invest ... "because we want to solve the problem for these people, but they must commit to use the water in an efficient way and also to allow us to install micrometers... they have huge storage tanks and they waste the water, that is why there is not water enough for them..." His colleagues says "We are going to improve this system; we decided to increase the amount of water through a new intake from another surface source to improve the availability and continuity of water"

Going back to the community after the investment...we were told "We are very grateful to PAAR; they said that we were going to have water 24 hours every day, we just have water four times a week

instead of two times...things are better, but not perfect... The president was more critical "The thing is that they just decided to take more water, but they did not improve the distribution system, these pipes are 30 years old.....We are struggling to get enough water for our animals and crops"

Ines Restrepo-Tarquino and Isabel Dominguez (CINARA)