Increasing access to water

Scaling up rain water harvesting practices through microfinance

Microfinance offers promising opportunities enabling financially more sustainable rainwater harvesting projects and improving the livelihood of people living in water scarce areas through additional income from agriculture and other activities.

Rain Water Harvesting increases access to water
According to the UN, 768 million people, or 11 per cent of the global population, remain without access to an improved source of drinking water. Such sources include household connections, public standpipes, boreholes, protected dug wells, protected springs and rainwater collections. Rain water harvesting is increasingly recognized by governments and NGO’s as an improved water source.

In water scarce or stressed areas with insufficient water infrastructure rain water harvesting can increase access to water. In many areas there is often sufficient rainfall, but most of the rain flows out or simply evaporates without making use of it. In addition, there are also urban areas where water demand is often higher than the water supply system can provide. Harvested rain water can be used for domestic and productive purposes, providing water for households, communities, farmer schools and health centers. Rain water harvesting enables people to manage their own water supply and safe time and energy at a decentralized level. It decreases health related costs and increases productivity of small scale farms.

Rain water can also be used as input for biogas production. Such a combined setup provides energy and can increase agricultural productivity through reusing the slurry as fertilizer.

Did you know that in Nepal microfinance is used by farmers to setup rain water harvesting?

Did you know that rainwater can be harvested with simple and effective technologies?

Access to water increases access to income
The availability of water through rain water harvesting can lead to additional income. Households can rely on a water source at their doorstep instead of several hours away, which directly delivers time. This time can be spent on agricultural activities or other activities that increase their income. The water itself can be used to irrigate crops, increasing yields.

Microfinance enables Rain Water Harvesting
Initial investments for a rain water harvesting system can be quite considerate and often financial support is needed. However, limited funds are available to achieve universal access to water. Several developing economies may even

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1 UN millennium goals, Millennium Development Goals Report 2013
Microfinance is a solution to sustainably finance a rainwater harvesting project and to create local ownership. It increases access to water and makes peoples less dependent on subsidies. For example in Nepal, Microfinance Institutes (MFIs) provided small credits (in the order of 100US$-200US$) to diverse groups and individuals that can finance 15 to 20% of the total costs for the installation of rainwater harvesting. Current experiences show that farmers are able to repay their loan within three years through increased income and savings. The RAIN Foundation is developing a program that reaches out to at least 2000 farmers.

### Did you know that using microfinance stimulates economic awareness and leads to an increase in income?

First experiences with Microfinance look promising

Using microfinance for the uptake of rainwater harvesting is relatively new. The RAIN foundation is gaining experience with this type of financing since 2010. For the last 3 years the RAIN Foundation conducted pilots in Nepal, and undertook studies in Burkina Faso and Senegal exploring the opportunities of using micro credits to finance rainwater harvesting systems. This is a first step to discover the potential of microfinance for rainwater harvesting.

Multiple use of the water leads to extra income

Using microfinance to realize a rainwater harvesting project is not limited to specific uses of the retained water. In Nepal this includes biogas production, drinking water and small scale irrigation, while in pilots in Senegal the retained water was used for live stock and crops irrigation.

One of the main questions raised with regard to using microfinance to finance rainwater harvesting is: “How can retained rainwater create income that is needed to pay off the loan?” A study carried out by the RAIN foundation and Biogas Sector Partnership in Nepal showed that combining different rainwater harvesting systems can generate income.

By combining a rainwater tank to collect water for domestic purposes, a toilet attached to a biogas plant to generate energy and fertilizer, and a water collection pond with a drip irrigation system, more water is available. This increased access to water enabling households to harvest more crops and spend less money on food and fuel wood. The availability of water encouraged households to set up their own business such as a small tea house.

### Further exploration of the possibilities of Microfinance

However promising the use of microfinance is as additional source of finance for development of rainwater harvesting systems, there are still challenges to further develop this opportunity.

What is needed for upsaling and increased use of microfinance for water/WASH related issues?

- How to develop realistic credit conditions that meet local circumstances?
- Simplifying bureaucratic requirement to apply for Micro credits.

Currently, the RAIN Foundation supported by the Micro Water Facility is developing a business case for rainwater harvesting. To develop more sustainable rainwater harvesting-projects that become independent from subsidies, this collaboration aims is explore the potential of microfinance for rainwater harvesting.

If you want to learn more about our experiences or want to share yours, please contact us!

**Interested?**

Contact us to find out what we can do for you.

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2 OECD (2014) and UNDP (2011)
3 Total costs are combined costs of development, construction, maintenance and possibly infrastructure.