



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 collections¹. 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 save time and energy at a decentralized level. It decreases health related costs and increases productivity of small scale farms.

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.

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?



Microfinance enables Rain Water Harvesting

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

¹ UN millenium goals, [Millennium Development Goals Report 2013](#)

become less eligible for ODA funding in the next decades². Microfinance is a solution to sustainably finance a rain water 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 costs³ for the installation of rain water 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 rain water 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 rain water harvesting systems. This is a first step to discover the potential of microfinance for rain water harvesting.

Multiple use of the water leads to extra income

Using microfinance to realize a rain water 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 rain water 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 rain water harvesting systems can generate income.

By combining a rain water 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.

Microfinance leads to a business mindset

Microfinance enables rain water harvesting projects to be financially more sustainable, but this type of financing has additional benefits. Using microfinance to partly finance rain water harvesting systems increases independence from subsidies, stimulates self reliance and supports local finance principles. It creates a sense of ownership and a 'business mindset'. In Nepal people acknowledged the benefits, encouraging them to practice savings, become a promoter and consider rain water as a productive asset. They underlined the opportunity to increase income by saving time on water collection.

As people became the owner of the rain water harvesting system that they partly paid for, people felt more responsibility e.g. for maintenance. This increased sense of ownership also motivated people to pay back the loan.

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 up scaling 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 rain water harvesting. To develop more sustainable rain water harvesting-projects that become independent from subsidies, this collaboration aims is explore the potential of microfinance for rain water 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.