



## Loan credit scheme for rainwater harvesting from roofs for households and institutions

**Goal:** livelihood improvement and reducing runoff

**Implementer:** lead organization RNRA now RWFA, partners: GT Bank, SACCOS and tank suppliers

**Funding:** FONERWA

**Duration:** 2014-2016 (3 month extension)

### Outputs/ outcome:

- 6825 water tanks have been installed in 6 districts
- 70 public institutions equipped with rainwater harvesting systems
- 5 housing group settlements with shared underground rainwater storage reservoirs
- 4000 sets of local materials consisting of plastic sheets and iron sheets were distributed (for those who could not afford plastic tanks)
- 500 technicians were trained for construction of small water ponds
- User manual for household Rainwater harvesting

During a 3 months extension # ? water tanks were distributed in 3 districts of the Eastern Province. This is combined with 10 trees per homestead.

### Impact:

The project has boosted the adoption of rainwater harvesting systems among households.

Water storage at more than 10.000 households. (filled more than once per year).

Reduced runoff from homesteads. Reduced water logging around homes.

People have invested substantial money in water harvesting

### Summary

RNRA, the GT bank and 2 tank providers joined forces for an innovative Rainwater harvesting project.

- 1) The bank purchases the water tank (bank receives the subsidy)
- 2) The beneficiary 10 % downpayment to access the water tank
- 3) Payback agreement on monthly basis in 12 settlements (one year)
- 4) Installation of the system by the beneficiary hiring local masons

- 5) Field technicians of RNRA confirm if the installation of the tank before giving a go-ahead for the subsidy
- 6) After fulfilling the payments the user becomes the full owner of the tank.



## Results

The project's goal was to sell 10,000 tanks of capacity between 2 and 5 cubic meters. The project sold 6,825 instead because of higher than expected demand for the bigger tanks. The smaller tanks (cheaper) and larger ones (expensive). The cost of a 5-cubic-meter tank is 375,000 FRW in Kigali. The subsidy was 150,000 FRW. Getting the tank in remote areas such as Rubavu adds 14,000 FRW to the cost of the tank. Cost of additional investment for materials and installation per household is around 40,000 FRW.

Initially, the GT bank was the bank found interested to embark on the innovative social RWH project. The bank charge interest rates of 10%. An evaluation showed that the bank procedures for approval were too long.

Funding was channeled through the SACCO's who were better suited to deliver financial services at local level. The local people preferred fast procedures and accepted even the higher interest rates between 18 and 30%. 928 tanks were delivered through the GT bank and the rest through SACCOS. The subsidy and spread payment increased the access to the rainwater harvesting technology.

The user is responsible to buy the materials and organize the installation of the system. They usually contract a mason to build a foundation for the tank, install the gutter and connect the tank with the gutter.

The supervisors of the Ministry have observed that construction was done mostly satisfactory and only observed a few problems in the construction of the foundation for the tank and the gutter. A user manual has been produced to guide the users in construction and maintenance (link to manual ?)

Most people prefer the 5 M3 storage tanks. People that opt for the smaller 2, 2,5 m3 do it for reasons of space limitations around the house and for financial reasons Rainwater is stored in the tanks and used for drinking and other domestic uses as well as animals and gardens.

People were very committed to the project. Very low default percentage. After not paying 1 month the user receives a warning. After 3 months of not paying the tank will be collected by the supplier and be recycled. All cost made are reduced from the payments made till date by the user.

The project had a second modality of the plastic sheets and the iron sheets for the people that cannot afford the tanks are successfully applied. It significantly improves the lives of the people.

*Challenge:* Some people also use the tank to store water directly from the tap of a water supply system. This is forbidden since the tap water do not qualify for the subsidy for the rainwater harvesting because it doesn't contribute to runoff reduction. Storing water from the tap in the tank is also said to lead to unfair distribution of supply water. It is estimated that up to 80 cases have cheated the subsidy.

The last 3 months of the project the demand for tanks spiked. This indicates a real interest for the RWH loan subsidy programme. The SACCOS now offer the loan for RWH tanks (without subsidy). That implies there is still unsatisfied demand in the districts. According the project manager of the program, there is still a large potential for harvesting rainwater from roofs and storage at house and institution level. It is recommended to conduct an evaluation including user satisfaction measurement for further up-scaling of the project.

### **Lessons learned**

- SACCOS are better placed for financing the project than the commercial banks
- Most people prefer the bigger 5 M3 storage tanks
- More awareness raising and preparation would benefit the quality of the construction and use
- To reduce costs local leaders should be trained for guiding and monitoring the implementation (ensuring that tanks given serve the provided purpose (Rainwater harvesting).
- Local masons can be trained better on the construction
- People in dry areas use the tank to store water from other sources. During the weekend they collect water from a waterpoint so during the week they have more time for other activities like attending school. This is acceptable.
- Tanks are also used to collect tap water, it becomes a problem for the system and some people remain without water. This is not allowed.
- People use less water from contaminated sources like swamps through having the tanks.

### **Up-scaling**

The subsidy and spread payment makes it a lot easier for people to access the rainwater harvesting systems. There is still unsatisfied demand for the loan subsidy scheme in the districts that were included in the project. The potential demand is also great in other districts.

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