

# [RWANDA]



GREEN  
CLIMATE  
FUND

GLOBAL  
PROGRAMMING  
CONFERENCE

## Project title

Improving Water Security in Rwanda through Rainwater Harvesting

### Result areas

Most vulnerable people and communities, Health and well-being, and food and water security, Ecosystem and ecosystem services

### Sector

Public

### Total financing, USD

10 Million

### GCF financing, USD

9 Million

### Financial instrument

Grant

### Description of specific climate change problem and how the project will address it

Situated in the upper reaches of the White Nile and Congo river basins, Rwanda has abundant lakes, rivers, and wetlands, and groundwater is an important water source in rural areas. These relatively abundant water resources face increased pressure from a changing climate. Warming temperatures and longer dry spells will likely diminish surface flows, leading to water shortages (particularly in the east and around Kigali) and reduce groundwater recharge. Dry season flows in the Nyabarongo River, which supports Kigali's water supply, are expected to decrease in coming decades, exacerbating shortages already occurring in the capital city. Another climate risk is the increase in the proportion of annual precipitation falling in heavy rainfall events. An increase in heavy rainfall leads to rapid runoff and flooding, which reduces groundwater recharge because too much rain at one time exceeds soil absorption capacity. Heavy rainfall also increases siltation of rivers, lakes and reservoirs, and contaminates industrial, agricultural, and domestic sources. These climate stressors are in addition to other pressures on water resources, such as increasing demand from a growing population, agricultural and industrial pollution, and years of persistent environmental degradation. This project will harness the harvest technologies to be able store enough water need even in the period of drought for home use, irrigation and other purposes.

### Alignment with key country priorities and stakeholders engaged

Rwanda has a forward-looking climate policy framework in place to guide climate change response. The country's Green Growth and Climate Resilience Strategy (2011) outlines Rwanda's vision of being a developed, climate-resilient, low-carbon economy by 2050. The 3<sup>rd</sup> Programme of action of the strategy is the Integrated water resources management and priority 7 of the National Strategy for Transformation talks about sustainable management of all natural resources. Recently the Cabinet approved Rwanda Water Resources Board which will have in its mandate to manage the use and regulation of water resources in Rwanda.

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### Activities

- Design and installation of improved water harvesting and storage systems and technologies and disseminating very low cost (artisan) RWH techniques for rural poor households
- Constructing RWH systems for selected public buildings and integrated collective household systems
- Rehabilitation and protection of existing RWH infrastructure and
- knowledge and capacity developed to facilitate policy and planning for local and national level scale up.

### Expected outcomes

- The project will also enhance the adaptive capacity and resilience through:
  - ❖ Improved water security for home use, farms and industries
  - ❖ Enhancement of soil stability through attenuation of erosion, landslide risk and storm water management,
  - ❖ Employment creation through the development of home grown construction facilities
- Inclusive development through improved livelihoods of vulnerable people and poor farming communities.

### Paradigm shift potential

It has a huge potential to cost effectively scale up, replicate and sustain the results of the interventions through:

- further development of the 'home grown' construction materials and techniques to increase capacity, expertise and the competitiveness of the products and skills, ensuring sustainability after project.
- Increase in water for irrigation and year round intensive agriculture and livestock production systems sustained by the farmers