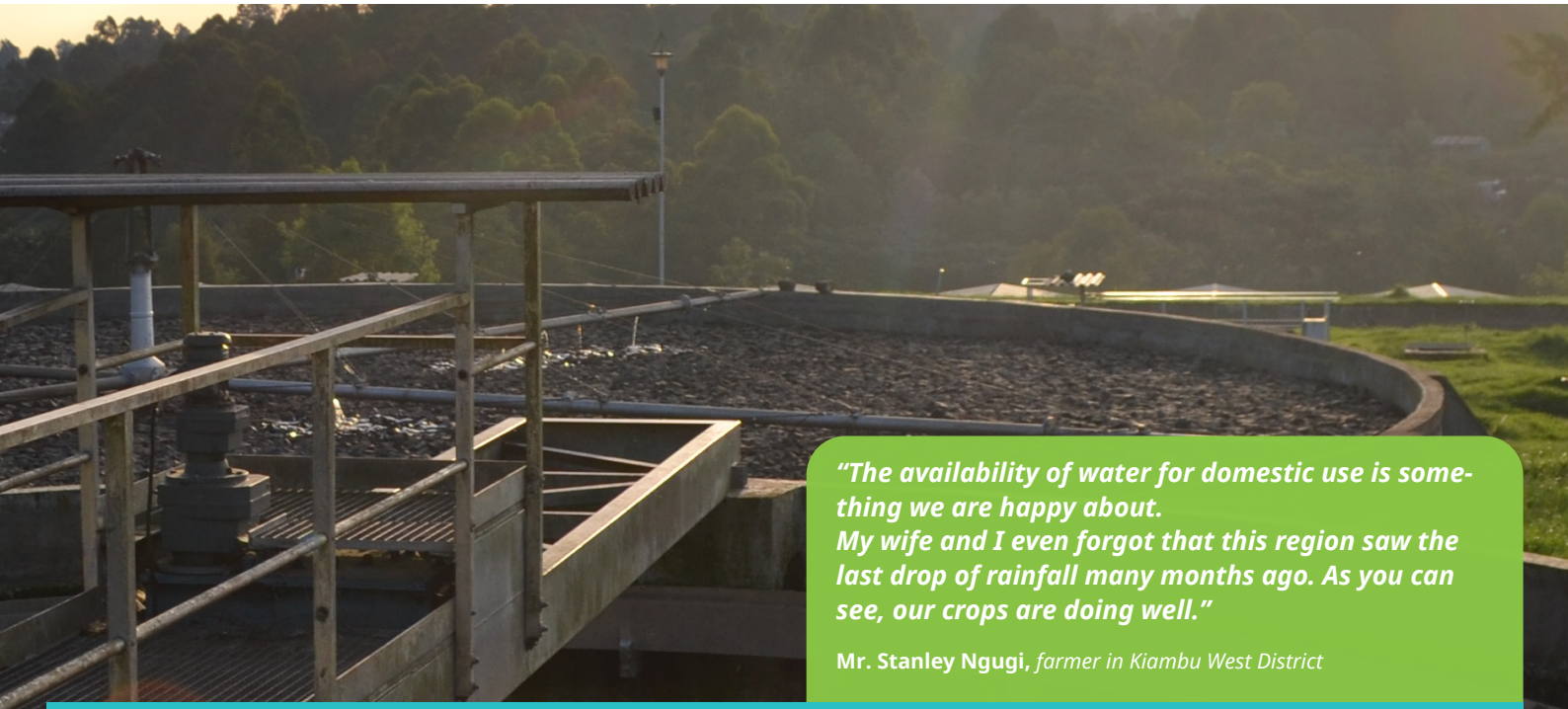
African Water Facility
Facilité africaine de l'eau
*Mobilising Resources for Water in Africa*
*Mobiliser des ressources pour l'eau en Afrique*

AFRICAN DEVELOPMENT BANK GROUP

PROJECT BRIEF

# KENYA:
# SCALING UP OF INTEGRATED RAINWATER HARVESTING AND MANAGEMENT AND COMPLEMENTARY LIVELIHOOD SYSTEMS IN SEMI ARID DISTRICTS OF KENYA

## Improved access to safe water supply, sanitation, and hygiene



***"The availability of water for domestic use is something we are happy about. My wife and I even forgot that this region saw the last drop of rainfall many months ago. As you can see, our crops are doing well."***

**Mr. Stanley Ngugi,** *farmer in Kiambu West District*

## The Kenya Rainwater Harvesting project

Livelihoods of most rural communities in the arid and semi-arid lands (ASAL), which cover about 80% of Kenya, are frequently disrupted by persistent droughts and related famine associated with climate change, namely due to erratic, low and unpredictable rainfall.

The project addressed the outlined problems based on the community needs to improve food security, overall livelihood and socio-economic development. Besides water and food security, the project also mitigated environmental degradation and enhanced the capacity of the community to manage their resources sustainably and productively and to cope with the effects of climate change.

The project integrated Phase III of a three-phased programme development concept of the Greater Horn of Africa Rainwater Partnership (GHARP), where rainwater harvesting and management (RHM) systems, have been identified as an effective and cost wise solution to comply with the needs of the vulnerable communities in the ASAL.

Kenya Rainwater Association (KRA), which ensures Secretariat of GHARP, implemented this pilot project in 2 pastoral communities in Baringo district, and 2 agro- pastoral (smallholder farmers) community groups in the Kiambu West and Laikipia East districts, with the purpose of promoting the scaling up of RHM systems and complementary technologies. The project was approved in July 2012 and signed in December of the same year. It was completed in June of 2016 having a total duration of 36 months, as per the original plan.

The total cost was of EUR 839,700, of which EUR 689,500 (82%) were funded by the African Water Facility (AWF).

# Kenya Rainwater Harvesting

**Project Code:** P-KE-EAZ-003
**Grant Number:** 5600155002901
**Approval Date:** 5th July 2012
**Closing Date:** 30th June 2016
**Total Budget:** EUR 839,700
**AWF Funding Amount:** EUR 689,500

**Additional funding from:**

The Kenya Rainwater Association (KRA), recipient communities and Government of Kenya (GoK), co-financed the remaining EUR 150,200

**Implementing partners:**

- Kenya Rainwater Association (KRA)
- Other stakeholders:
- Greater Horn of Africa Rainwater Partnership (GHARP)
- Government of Kenya (GoK)
- Local Governments, Schools, and Community groups in the three selected districts: Baringo, Kiambu West and Laikipia East

**Geographical scope and scale:**

- 2 pastoral communities in semi-arid Baringo district
- 2 agro-pastoral (smallholder farmers) community groups in the semi-arid Kiambu West and Laikipia East districts
- About 15,000 pastoral and agro-pastoral community members in three Arid and Semi-Arid Lands (ASAL) districts of Kenya
- 9 primary schools, including about 2,400 children and 100 teachers

***"Before the project, we used to report losses of livestock as we took them to water points. This has changed. We spend less time with these chores. This has enabled us to engage in honey production."***

**Baringo County Community Members**

## Impacts and Solutions

The project successfully demonstrated the value of RHM in a mix of climatic conditions and should be seen as an important tool for building climate resilience in rural communities. It has a reasonably short payback period, which is important for scale-up purposes.

The main achievements from different components funded by AWF included **RHM infrastructure development for domestic and productive use**, consisted in:

- 2 communal water pans and auxiliary structures each with a capacity of 30,000 m3/year, where each was able to provide closer access to water sources to about 200 -500 cows and 3,000 goats.
- 160 household (50 m3/year each) and 9 school **farm ponds** (72m3/year each), reaching circa 15,000 community members, 2400 students and 100 teachers.
- 9 schools' **roof-catchment masonry rainwater storage tanks** (75m3/year each)
- **Guttering systems and hand-washing units/watering points**.

**Complementary technologies for improved livelihoods and income generation were also realised**, such as the installation of low-head drip irrigation systems in 160 households, and the construction of 9 improved gender segregated sanitary facilities in schools. This resulted in higher school retention and attendance rates, and reduced teacher turnover. Households benefitted from the presence and use of the dams in several ways including less need to migrate or travel large distances for water.

Actions were also undertaken regarding **knowledge sharing and policy advocacy.** Demonstrations for draught animal technology were carried out, as well as 4 community training and exposure visits.

The project regularly met or exceeded initial project outputs. Besides, there was a positive social benefit by **improving livestock condition**, and increased **security of water** for activities such as beekeeping and alternative income generation.

## Key Challenges

**Private sector** was rarely mentioned as being involved in the project, with most resources being procured from government, the AWF, and farmer themselves. Although discussions with the private sector were established, the project did not provide many lessons in this regard.

Some **Monitoring and Evaluation** aspects appeared to be weak, whereas broad figures were kept, detailed information was often missing.

**Institutional sustainability**: Whilst the KRA has been in operating for over a decade, and has continued to promote RHM, there could be potential issues over its longer-term financial sustainability despite the ongoing resource mobilization and efforts to strengthen its financial and programme sustainability.

**Seasonality**: Challenges were faced regarding the synchronization of infrastructure implementation with the occurrence of the rainy seasons, which could affect the optimization of the financial return cycles.

# Key Lessons

- Evaluations indicated that 50% of farmers didn't value RHM projects as much when the technology was simply supplied. **When then the technology was delivered with the need for a loan attached, this resulted in a more business-like approach and generally more value related to the project.**
- **Strategic partnerships with Civil Society, State and Private Sectors are needed** to scale up integrated RHM and complementary livelihood systems at national and regional level.
- Any effort to scale up also requires **support from the wider business sector**, especially as there is a need to provide a market for goods, but also the logistics involved in transportation **to ensure that local investment will result in expected results.**
- The use of the **loans approach was an important funding mechanism for Kiambu and Laikipia Counties**, as the KRA project was intended as a demonstration to scale it up with increased levels of finance from other actors, such as the private sector, thus developing the local economy and promoting job creation.
- The project was built upon previous successes and experiences. KRA had in this regard some **working relationship with some of the communities and stakeholders, hence existing connections and trust**. **This was especially important** for small scale projects that really engage at the grassroots level.
- **The level of mobilisation and self-motivation by community and group leaders also played a major role of project success.** The communities regarded the project as addressing their personal challenges hence enhanced ownership and commitment.

***"The pastoral families normally move away during drought to look for better grazing lands. Before, those parents used to move with their children (even those going to school). This led to absenteeism up to a couple of months."***

**- Head Teacher of Kaplewo Primary School in Baringo County**

# Recommended actions

From the project, it is possible to identify the below-recommended actions regarding structures, policies, and strategic plans:

**Knowledge dissemination:** There is a need to share detailed technical designs of all installations, including standard cross-sections, and estimates of all WASH facilities and micro-irrigation systems. However, sharing should be limited to strategic partners to avoid plagiarism and misuse.

**Monitoring and Evaluation:** While good efforts had been made towards M&E, further systematisation of related systems was required.

**Private sector relations:** Similarly to what was established with local governments, there was the need to promote good, close relations with the private sector as these are fundamental for the scale-up of the project.

**Supporting scale-up** and acceleration, especially as a form of social entrepreneurship. This project showed to be a very promising approach to building climate resilience which connects well with communities, requires a relatively small investment, and has good potential for rapid payback.

**Upscaling:** The project was included in the AWF pipeline as a Small Strategic Investment. These are a series of projects developed to build knowledge and insight with a view to scaling them up with external resources. KRA estimates that up to 2 million small farmers could be involved within a wider revolving fund and private sector implication would develop linkages with the market.

**Provision of Operations and Maintenance:** There appears to be little consideration of resource needs associated with Operations and Maintenance, especially regarding projects undertaken in schools across all three counties and the communal dams in Baringo. In both these components of the project, a lack of maintenance may impact on the lifespan of the structures.

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GROUPE DE LA BANQUE AFRICAINE DE DÉVELOPPEMENT

**Other related Project Resource**

Scaling Up of Integrated Rainwater Harvesting and Management and Complementary Livelihood Systems In Semi-Arid Districts Of Kenya, Appraisal Report. May 2012. AWF.
Scaling Up of Integrated Rainwater Harvesting and Management and Complementary Livelihood Systems In Semi-Arid Districts Of Kenya, Project Completion Report. March 2019. AWF.
Delivering Lasting Impact - Some of the success stories gathered during AWF mission to Kenya.

https://projectsportal.afdb.org/dataportal/VProject/show/P-KE-EAZ-003

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