PROJECT COMPLETION REPORT

Project Title:	Freshwater Ecosystem Functionality in Kajiado
Type of Report	End of Project Report
Project Duration:	1st March 2016-30th November 2016
Amount received from RAIN:	Kshs 5,000,152.00
Report Date:	14th December 2016
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PART 1: SUMMARY REPORT

Achievements

Project Summary

Project seeks to enhance access to freshwater in urban Kajiado through rainwater harvesting and improving freshwater ecosystem functionality in rural Kajiado through construction, adaptation and promotion of rainwater harvesting infrastructures.

The project applies to rural Enkorika to strengthen existing interventions and make Enkorika a model for learning 3R techniques. It also applies to urban Kajiado where we seek to recharge the Kajiado aquifer

Project expectations

The project performed quite well in meeting its broad objective of enhancing access to freshwater in Kajiado. This was mainly achieved through different types of interventions among them rehabilitation and protection of Isinya Sampi and Kerema springs respectively, equipping of Empeut Sand dam and enhancing recharge through soil and water conservation structures. The beneficiaries including users, water management committees, technicians and water resource users association members were taken through various capacity building initiatives i.e. field trainings and exchange visits to ensure sustainability of the projects initiated.

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Timeframe/Location

Although the project started later than anticipated, most of the activities were completed in good time before the final completion date. This was due to the fact that the Maasai community which the project targeted are predominantly pastoralists and livestock is the mainstay of their economy in an environment prone to frequent droughts; hence any project touching on water and pastures is greatly welcomed. The beneficiary community were very receptive and there was no variation of the project target location.

Specific Objectives

1. To increase access to and use of RWH technologies for provision and management of water for multiple use
2. To develop a model village for learning 3R techniques by facilitating 3R infrastructural development to further upscale the approach through amplified community investments.
3. To engage with the county government and like minded NGOs to lobby and advocate for urban recharge and urban water handling improvement.

Outputs

No.	Planned	Achieved
1	50 households supported for RWH (300) Persons	10 underground cisterns with a capacity of 7,000L were constructed in 10 homesteads for enhanced rainwater harvesting. (On average, there are 6 households per homestead *5 persons per household * 10

		homesteads = 300 beneficiaries
2	10 technicians trained on roof water harvesting	12 technicians were reached with this training. They are entrepreneurs doing their trade within the Enkorika community.
3	5 types of soil and water conservation infrastructures within Enkorika catchment	This output was not completely realized as it required heavy investment in terms of unskilled labour and there were other competing interests among the beneficiaries in light of a drought in the 3rd trimester of the year. The community was however, equipped with relevant knowledge to perform the tasks and are already implementing ploughing along contours.
4	Exchange visits for Enkorika WRUA, Water point management committees and farmer groups to similar projects in Machakos County	12 representatives of different interest groups participated in this exchange visit. Besides, Machakos County, the group also visited Kitui County.
5	50 persons trained and utilizing 3R techniques at Enkorika	49 participants were reached with this training.
6	1000 additional persons accessing and using portable water	1055 people accessed portable water as follows: • 170 persons from Merinyo village through equipping of Empeut Sand dam • 327 persons from Mpiro village through spring protection • 182 persons from Ilparakuo village through equipping Enjoro sand dam

		• 376 persons accessing portable water through repair of Isinya Sampi hand pump at the Spring in Enkorika.
7	Improved freshwater functionality in Enkorika (inclusive of quantity and quality)	As a result of rehabilitated spring at Isinya Sampi, protected spring at Impiro, construction and equipping of infiltration well at Empeut sand dam and soil and water conservation measures, there is a functional freshwater ecosystem in place at Enkorika. The increase in the quantity of water is quite visible and people (376 persons) are consuming water of good quality. Previously, there was a mixture of dry land ecosystem due to the seasonal river and freshwater due to the existence of a spring from a mini-wetland (spring eye). Now due to the sand dams in succession and other infrastructures of soil and water harvesting, the seasonal river is now having water many months into the dry season!.
8	To increase access to an use of RWH technologies for provision of water for multiple use	The 10 technicians who are largely entrepreneurs were trained on rainwater harvesting and storage techniques. Already they are implementing a 7000L underground cistern within the community developed in Bolivia.
9	To develop a model village for learning 3R techniques by facilitation 3R infrastructural development	Dalalekutuk Ward is fast gaining ground as a village to learn 3R techniques. Already, the Ward has hosted visitors from WAK, WAI and locally, it has hosted representatives from all WRUAs in

		Kajiado County under the umbrella body of WRUA Council.
10	To achieve environmental sustainability in the target areas through creation of a functional freshwater ecosystem	The area being arid and semi arid, the seasonal river at Enkorika was such that a few hours after a rainfall episode, all water would flow away. This made it to be classified as a dry land ecosystem. However, up on a hill, there was a small freshwater ecosystem, from which a spring issued. With a series of sand dam, there now appears to be a connection from the spring to the last sand dam as water is on the river many months into the dry season qualifying our achievement.

Budget

The project was implemented within the planned budget. However, there was an additional amount of Kshs 125,000 through a contract amended to facilitate water point mapping activity for Kajiado sponge city project area.

PART 2 FINANCIAL REPORT

Description	Donor	Total utilized to date	Balance remaining
		KES	KES
Hardware			
Creation of 1000 soil bunds and stone bunds (Lunches for 30 pax working for 30 days @ 250/day)	100,000.00	100,050.00	(50.00)
Construction and equipping of infiltration well	223,850.00	223,850.00	-
Repair of sand dams damaged by El Nino rains at Enkorika	300,000.00	290.500.00	9,500.00
Spring protection at Enkorika	36,000.00	39,150.00	(3,150)
Protection of Impiron spring and promotion of water for MUS	341,500.00	349,300.00	(7,800.00)

Promotion of rainwater harvesting at households (Guttering and storage tank) for 10 Homesteads (EMAS Bolivia systems)	278,500.00	278,420.00	80.00
Hardware - Sub Total	**1,279,850.00**	**1,281,270.00**	**(1,420.00)**
Software: Capacity Building			
Community meetings for sensitization and awareness creation on 3R benefits and selection of sites for demonstration of 3R infrastructures	40,000.00	39,300.00	700.00
Identification and selection of beneficiaries of roof rainwater harvesting infrastructures	40,000.00	39,600.00	400.00
Identification and selection of suitable soil and water conservation structures according to the landscape & Demo farm(s)	40,000.00	39,500.00	500.00
Sensitization and mobilization meetings for beneficiary contribution	40,000.00	38,000.00	2,000.00
1 Day 3 R Training at Enkorika (50 pax)	90,000.00	89,600.00	400.00
4 Day Practical on site Training on Marking contours & digging of contour soil bunds & construction of stone lines	40,000.00	40,000.00	-
Training of technicians on roof water harvesting (One day)	60,000.00	59,250.00	750.00
Facilitate knowledge transfer missions (Exchange visits to Enkorika for WRUAs based in Kajiado and other groups)	150,000.00	151,000.00	(1,000.00)
Exchange visits for Enkorika WRUA, Water Point Management Committees, Farmer groups to similar projects in Kitui (Coordination with SASOL)	200,000.00	203,260.00	(3,260.00)
Water Committee Management Trainings with empasis on Tariffs setting and water safety (45pax for 3 days)	151,150.00	150,000.00	1,150.00
Software: Capacity Building - Sub Totals	**851,150.00**	**849,510.00**	**1,640.00**

Project Manager	499,344.00	499,344.00	-
Project Officer	289,808.00	289,808.00	-
Transport	800,000.00	800,135.00	(135.00)
Communication	200,000.00	199,860.00	140.00
Contingency	100,000.00	99,500.00	500.00
Management (10% NIA management fee)	980,000.00	980,460.00	(460.00)
Administration Costs - Sub Totals	**2,869,152.00**	**2,869,107.00**	**45.00**
Grand Total	**5,000,152.00**	**4,999,887.00**	**265.00**

OTHER INSIGHTS/RECOMMENDATIONS

OPPORTUNITY

From the various trainings held both in the field at Enkorika and in a formal environment including exchange visits, the participants embraced lessons learnt and showed eagerness to practice and share with their communities. It is this opportunity that NIA is utilizing by modelling Enkorika as a learning area within Kajiado County for 3R approaches. NIA equally learnt that the largely pastoral community is presently yearning for change and are quickly embracing alternative livelihood options i.e. agriculture in the face of a changing environment due to diminishing pastoral land and adverse effect of climate change. They are becoming more sensitive to issues of environmental degradation are embracing practices which protect the environment in their plots. The small practices if multiplied will create a transformed landscape.

APPROACHES

This project utilized Integrated Water Resources Management principles and 3R (Rainwater Retention Recharge and Re-use). These were complemented with Participatory Integrated Community Development (PICD) and Community Conversations (CC). The sustainability principle of FIETS was integrated in all the activities carried out especially the water supply projects. Applying integrated WASH proved difficult as the Ministry of Public Health re-directed NIA sanitation and hygiene projects to another location. This was to be supported by Simavi.

SUSTAINABILITY/UPSCALING

NIA seeks to link these community groups with the upcoming Watershed Project in which NIA has been selected as one of the key partners of Simavi.

This watershed project led by Simavi, Wetlands International, Akvo and IRC is targeting Kajiado County in Kenya and that provides an opportunity to continue supporting/strengthen the work at Enkorika catchment.

The Watershed project seeks to strengthen the WRUAs, Water Users Associations and County Government of Kajiado among other target groups who have a role in WASH/WRM but have inadequate capacity to fulfil their roles and responsibilities.

PROJECT PICTURES

Training on laying contours preceding creation of soil bunds. Training conducted by Madam Rael Wanjiku of the County Department of Agriculture, Kajiado County.

Women drawing water from newly constructed and equipped infiltration well at Empeut Sand Dam in Dalalekutuk Ward, Kajiado County, Kenya. This was done with technical support from SASOL Foundation.

Matured newly repaired sand dam at Enkorika, Dalalekutuk Ward. This was one of the sand dams that were repaired after the El Nino rains.

Rehabilitation works at Isinya Sampin spring. Spring had shallow constructed nearby. Working together with AMREF Technicians and with permission from German Agro Action, the shallow well was restored to working order.

Project beneficiary proudly drawing water from protected spring at Impiro. The spring is also used to provide water for livestock and irrigation. NIA promoted multiple use of the water.

Laying on the ground the diameter for the underground cisterns for promotion of rainwater harvesting. The Cisterns with a capacity to store up to 7,000L of water will take the shape of a bottle with the opening having a diameter of 80cm (2.62ft) and going to a depth of 1m (3.28ft). Thereafter, the Cistern takes the oval shape with a maximum mid diameter of 1.8m (5.9ft) and a further depth of 4m (13.12ft). The total depth from top to bottom is 5m (16.4ft)

Members of Black Youth Self Help group in Kitui explaining their activities to Kajiado team comprising of representatives from Enkorika based WRUA, Water Management Committees and farmer groups. The Kajiado based farmer groups have already started implementing what they learnt during this exchange visit. This site was implemented with assistance of SASOL Foundation.

Representatives from all Water Resource Users Associations in Kajiado County during a training at NIA offices preceding field visit to Enkorika.

Some of the WRUA representatives at the Impiro spring protection site.