



The Snapshot Newsletter

Kenya Water Security and Climate Resilience Project

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From The Project Manager

The Kenya Water Security and Climate Resilience Project (KWSCRCP) provides this newsletter as a forum for the project team drawn from the Project Management Unit (PMU) and the Project Implementing Units (PIUs) for both KWSCRCP 1 & 2, to share successes, challenges, lesson learned and the impact our efforts, have on the project beneficiaries.

The KWSCRCP 1 covers the Lower Nzoia Project (LNP), Water Sector Reforms, Nzoia FFEWS, and Investment Planning while KWSCRCP 2 covers irrigation, livelihood, sanitation and water infrastructure, and the Mwache Multi-Purpose Dam project in Kwale County, which are government flagship projects.

The newsletter is produced quarterly and shared online. I would like to encourage colleagues to share project experiences, milestones and best practices. To our stakeholders and readers, we will be glad to receive your feedback.

Eng. Simon Mwangi
Project Manager, KWSCRCP



Budalangi MP Hon. Raphael Wanjala (left) and KWSCRCP Project Manager (right) Eng. Simon Mwangi at the northern dyke. Hon. Wanjala called for the community's collaboration to ensure that the remaining construction works along the dykes are completed by the end of this year. He applauded the project for the reinforcement of the dykes that have reduced the perennial flooding along river Nzoia. Over 80% of the reinforcement works on the dykes have been completed. Residents who had been displaced by the floods have rebuilt their homes and resumed farming.

Mwache Dam Project Contractor Introduced to Kwale County Leaders



Meeting held to introduce the project contractor Sinohydro and the Resident Engineer, Nippon Koei. In attendance was the Mr. Gideon Oyagi, Kwale County Commissioner, Eng. Simon Mwangi, KWSCRCP Project Manager, Kinango MP, Hon. Benjamin Tayari, MCA Kasemeni, Hon. Anthony Yama, CECs from Kwale county Government, local administration and representatives of teams of consultants working for the project.

Lower Nzoia Project Physical Works Progress as of January 2022

Activities	Completion Status
Diversion Weir and Flushing Sluice gates	100%
Intake Structure and Avio gates	97%
Emergency Weir and AVIS gate	90%
Sand Trap	100%
Tertiary canal and service road	16.3%
Headworks service road	95%
HW-Box culverts	95%
Aqueduct	100%
MC-Cross Drainage Structures	100%
Bunyala Irrigation Management Facility	98%
Nyadorera Irrigation Management Facilities	98%
Rehabilitation of Bunyala Irrigation Scheme	75%
Rehabilitation of Bunyala Buildings (8No)	100%
Southern dyke	70%
Northern dyke	66.9%

Lower Nzoia Project Updates

Land Acquisition

The National Lands Commission (NLC) has compensated 26 PAPs in blocks 5-7 and along the Northern dykes. The Resettlement Implementation Consultants (RIC) is assisting PAPs who received compensation to relocate and resettle. The RIC also trained 303 PAPs on Financial Literacy and HIV/AIDS awareness in Blocks 5 - 7 and the Northern Dyke.



Vitalis Juma's retail shop at Kalaka market sells fish to a client outside his shop. John is amongst the PAPs trained in financial management. He used the compensation money to rebuilt a new home and used the remaining to open a retail shop and fish business

Project Video Documentation of K1 and K2



The documentary crew interviews a farmer at Bunyala Irrigation Scheme. The World Bank provided two service providers to develop two video documentaries for the KWSCR K1 and K2. The documentary captures all the project's activities and beneficiaries and stakeholders' interviews. The video will be uploaded to the Banks and the Project websites and social media platforms.

Reinforcement of the Dykes



Ongoing construction works for the installation of the sluice gates on the northern dyke to drain floods water to River Nzoia

Construction works along the main canal have been completed including cross drainage structures, box culvert, duckbill weir, and baffle distributors, earthworks, casting of precast concrete feeder canal flow regulators for the Bunyala Irrigation Scheme, and precast concrete for tertiary canal lining units.



Soil erosion is regarded as a potential problem especially in the repair of dykes, and other flood mitigation structures



With the reduced floods along the dykes, more residents are building permanent houses and farming in the land which had previously been abandoned because floods



Boost for Agricultural Support and Value Chain and Income

From the Shed Net to Farms



Left: ISC Agronomist, Miriam Otipa and the Busia County Agriculture Extension officer Stephen Bakasa inspect seedlings at the shed net.

Right: Chia seeds plants and Watermelon at the demo farm

Over 200 farmers have been trained on the management of clean seedlings from the shed net. In the first phase, 40,000 seedlings were produced at the shed net and distributed to individual and group farmers. Five on-farm shed nets will be established to fast-track the production of high-value crops. The clean seedlings have a shorter production period of three weeks as compared to two months when a farmer has to prepare a nursery and transplant the seedlings. The shed nets will also act as an income-generating venture for seedling sales to farmer groups.

The National Irrigation Authority (NIA) project implementation unit staff and the county government agriculture extension officers are actively involved in the establishment of the on-farm shed nets, training, and support services to the farmers.

Regina Ombito is the chair lady of the *Khutemekho* farmers and marketing group in block 13. She hosts the demo farm where the project trained the 25 members (16 males, and 9 females) on the production and management of high-value crops.

After the training, Regina planted 1,000 tomato stems. She harvested 25 crates and made about Ksh 60,000 net. Before the training, she harvested only five crates from the same size of land. She has expanded the crop variety to capsicum, spinach, amaranth, cabbage, and kales.

"I can comfortably pay for my children's education and upkeep," says Regina.

To encourage other group members to uptake the skills learned, Regina provided each member with 50 free seedlings from her nursery. As a result, all the 25 group members are growing various crops on their farms. To ensure continuous supply and price control in the local market, the members agree on which crops each produces at different seasons.



Boost for Agricultural Support and Value Chain and Income



Pamela Ajambo (left) is one of the *Khutemekho* farmers group members and a next-door neighbor to Regina.

“Regina gave me 50 free tomato seedlings and encouraged me to use the skills we had learned during the training. I saw many traders at her farm every morning buying vegetables and I knew she was making good returns. When my tomatoes were ready for harvest, she introduced me to the traders. I have never looked back. I am also growing kales and spinach. We are grateful to have a group leader like Regina,” says Pamela.



Oramba farmers group members harvest tomatoes in the groups' demo farm. The traders buy the produce from the farm thus reducing costs of transport and increasing the profit margins

The Oramba farmer production and marketing group have 31 members (male 8, Female 23). They synchronize cropping spacing and variety to ensure continuous market supply and cash flow. This has helped them stay afloat in the market and control prices.

The group is saving to buy a solar-powered water pump and increase the farming hectareage. Some members plan to lease more farming land when irrigation water is available. The sales profits are ploughed back to members in form of seedlings and inputs. The group has been trained on group development, agribusiness management, and good agricultural practices with great emphasis on crop enterprise mix and crop rotation.



Boost for Agricultural Support and Value Chain and Income

Felista Awino (right), the host farmer from the *Tushikamane* farmers' group shows some of the seeds she has preserved for replanting. The group members have been trained on harvesting and storage to preserve seeds to the required standards for replanting.

Felista planted *Tausi F1* kales which she has harvested for six months. She also grows tomatoes and Amaranth.

From the sales of Ksh 20,000, she started a cereal shop business that has a running capital of Ksh 50,000. She has employed a shopkeeper and casual labourer.

"The training from this project was an eye-opener. Being a single mother, I struggled with money to educate my children and family upkeep but things have started looking up and I believe they will only get better when the irrigation water is available," she says.

Training farmers in marketing and value chain analysis

The ISC conducted a market study to map out markets and link up the farmers to local traders and the County officers in charge of township ward revenue in Siaya, Ugunja, Port Victoria, Busia Town, and Bondo. The exercise also involved the listing of input suppliers and related agricultural support services. A follow-up business-to-business (B2B) meeting will be in March 2022 between the local traders and the farmer groups. Due to the improved rice quality, paddy prices have increased from Ksh 32 to Ksh 45 per kilogram

A private investor, *Go Africa*, is in discussion with the Bunyala Farmers Cooperative Society to install a new rice mill by mid this year. Safaricom Digi farm is offering credit to farmers to purchase inputs.



Patrick Okello of the Mkulima Agrovet Busagwa is one of the dealers who have been trained as training of trainers. He visits farmers and advises on the inputs dosage and usage



Left: Felista shows *Tausi F1* kales which she has harvested for six months
Right: Pamela explains to Dorvin Stockdale, Agricultural Operations Coordinator (ISC) how she preserves seeds for replanting



Bunyala Irrigation Scheme produces treated rice seeds. The ISC and SPIU in collaboration with KALRO, IRRI and Seedco are carrying out trials for different rice breeders at the SRI site to determine their adaptability in the scheme.

Boost for Agricultural Support and Value Chain and Income



Farmers being trained in field management for high-value crops in Lwada

An example of a season crop production by early adopter farmers

Type of Crops	Acres	Yield Kgs	Amount sold Kes	Net income Kes
Tomato	5	49,255	1,807,110	1,085,035
Kales	0.8	21730	495,400	439,700
Watermelon	0.25	900	27,000	18,000
Capsicum	0.02	65	8900	6100
Nightshade	0.255	3394	101,800	67,800
Pumpkin	0.605	5227	104,540	73,340
Sweet potato	0.3	3160	50,800	32,400
Onions	0.017	52	7900	6275
Rice	10	24,000	1,080,000	655,300
Spinach	0.02	845	19,400	14,400

Strengthening Collaborations: Farmers Field Day



Roselida Awuor (Bunyala Irrigation Scheme SPIU) train farmers on the production and management of clean planting material under the shade net



A supplier explain to farmers appropriate usages of inputs

On March 11, 2022, the ISC organized a farmers' field day dubbed *"Transforming livelihood through crop enterprises diversification for food security and increased incomes"*.

The field day was attended by 16 private sector companies and the Ministry of Agriculture representatives from Busia County. A total of 142 farmers/beneficiaries (88 males and 54 females) were trained in good agricultural practices for high-value crops, the system of rice intensification (SRI), production of clean planting materials, climate-smart resilient technologies such as water harvesting technologies, mulching, and minimum tillage, plant clinics for the management of crop pests and diseases, solar-powered irrigation systems, food security, and agribusiness opportunities, crop enterprise diversification, access to farm inputs. The farmers were also sensitized to gender-based violence (GBV).

Preparing for Floods During Upcoming Rainfalls



A community meeting at Busweti-Mudembi village to create awareness on projected floods during the March-May rains. The meeting was organized by the Kenya Meteorological Department and the National Disaster Management Unit. Other stakeholders included the Kenya Red Cross, St Johns Ambulance, County Department of Disaster Management, Regional Centre for mapping, Resources for development, and the Water Resources Authority.

The exercise included identification of households at risk, mapping out evacuation centers, assessment of the drainages and dykes, and prepositioning of shelters.



Identification of households at risk



Bunyala Irrigation Scheme Manager, Eng. Edwin Manyonge address farmers during the field day

Mwache Multi-Purpose Dam Project Updates

Gender-Based Violence Interventions

WomanKind Kenya (WOKIKE) conducted sensitization meetings on Sexual Exploitation and Abuse (SEA) and Gender-Based Violence (GBV) to parents and pupils from Fulugani primary school. According to WOKIKE Gender Specialist, Rose Karimi, Fulugani Primary population is considered a target group because of its proximity to the contractor's camp. From the GBV assessment, it was found that the girls were more at risk of sexual exploitation and abuse. The sensation included boys who will probably be at risk due to the influx of civil works workers. The sensitization also aimed to intensify community surveillance through the community focal persons in ensuring safety in schools," says Rose.

One of the trained community focal point persons explained that there was a need for the community to support the initiative because SEA/GBV risk could happen to anybody and hence the need for increased alertness among the parent. For Judith Chikuta, the guidance and counselling teacher, the school already had a structure that handled the SEA risk for pupils. However, the easiness to identify and report cases had been a challenge." The school thus feel that the sensitization was timely as it would help them strengthen that reporting structure.

All parents were targeted for the sensitization, whereas pupils targeting was guided by the incident recorder on children protection cases reported. The age cluster of 11 -17years had the highest number of cases hence this cluster was mobilized for the sensitization. The parents emphasized the need to strengthen the already existing structure in the school of guidance and counselling teachers to enable them to put in place an easy to access reporting system for the pupils.

The feeling on the existing structure at school for reporting GBV and SEA related incidences lacked proper mechanisms for identification; the monitoring and accountability framework was also weak with a likelihood of having very little or no resolution and feedback on cases. This in turn would lead to the reprisal of survivors at the school, family and community levels.

The parents felt strengthening the school structure identification mechanisms, monitoring and accountability framework would go a long way in ensuring successful case reporting and resolution hence supporting the school going children to be safe even though the contractor's camp will be a stone's throw from the school.



Training of trainers Community Focal Person sensitizes parents and pupils at Fulugani Primary school about SEA and GBV



Community Focal person training of trainer sensitizing parents



Parents Sensitization Fulugani Primary on SEA/GBV

Mwache Multi-Purpose Dam Project Updates

Cushioning PAPs from Economic Vulnerability while waiting for compensation



Beyu Nyamawi, from Hanje, is one of the PAPs who has not yet been compensated. She is a beneficiary of the interim livelihood restoration plan to cushion them from loss of livelihoods. The project gave her 50 chicks, build a chicken house and chicken feed

The project has made great strides in the resettlement of PAPs and ensuring that their livelihoods are restored as outlined in the resettlement action plan. However, there are a few parcels that are yet to receive their compensation due to issues such as unresolved land disputes, succession, and correction of land survey data amongst others. Alternative livelihood restorative plans have been made to mitigate the losses by the PAHs due to non-use or non-access to the project affected land parcels. A couple of the affected PAPs are from Hanje disputed area. The project is thus supporting the PAPs by helping them come up with alternative livelihood activities such as poultry keeping, providing seedlings, fertilizers, and other farm inputs, and leasing land for the respective compensation. This will be on an interim basis and the livelihood assistance will be for a minimum period of 6 months to a maximum period of 1 year. The PAPs have received the interim livelihood assistance a majority being from Hanje.

PAPs Enjoying Improved Housing and Sanitation in their new Locations

One of the evident and impressive hall-marks brought about by the Mwache Dam Project is the improvement of socio-economic aspects of the Project Affected Persons (PAPs). At the beginning of the project, there was fear from the local community members, that PAPs may not be able to restore their households, due to high illiteracy levels and some harmful cultures like polygamy and local wine brewing, which would lead to misuse of funds.

This leads to pollution of water bodies and the spread of diseases like cholera, typhoid, hookworm, diarrhea, and other intestinal infections. Furthermore, poverty levels were too high since the majority of PAPs depended only on agriculture for livelihood whereas, the area received inadequate rainfall for agricultural activities.

However, continued day-to-day monitoring of their use of funds in addition to the financial training the PAPs received helped them make evident life transformative decisions.



Before relocation



After relocation



Water tank for domestic use and income generation constructed the new homesteads

Mwache Multi-Purpose Dam Project Updates

Irrigation Demonstration Scheme to be set up in Pemba, Kwale at the Upper Mwache

The Agricultural Research Demonstration Farm (ARDF) in the Kwale Irrigation Demonstration aims to support an irrigation demonstration scheme of about 100 Ha at the Upper Mwache check dam in Pemba, Kwale County, Kenya. It will also provide insights into the viability of developing a 2000 - 3000 ha irrigation scheme at Mwache Multi-Purpose Dam in Kinango Sub-county, Kwale county. The demonstration farms will be used to identify intervention strategies for irrigation development and the implementation of different agricultural technologies and practices. The information generated from the ARDF and the demonstration scheme will enable the government to decide on how to best allocate the potential of irrigation and improve food security in the county.



Simon Ndegwa, one of the farmers at Nyalani Irrigation Scheme in his farm where he has been growing tomatoes and other crops. The same concept will be used with farmers in the demo farm.

The Upper check dam's vital purpose is to hold, remove, and reduce the sediment loads reaching the main Mwache Dam site. In addition, the dam water will be utilized in agricultural irrigation activities. A pilot Irrigation Demonstration scheme of 100 ha will be set up at the Upper Check dam and its outcomes will allow the Government to make decisions on how to best allocate the potential additional supply of water available from Mwache Dam in the future

The IDS entails the establishment of irrigation systems; agricultural support services; value chain and marketing linkages development; and participatory irrigation management through the formation of an Irrigation Water User Association (IWUA). The implementation of the IDS will be guided by results from the 5-acre Adaptive Research and Demonstration Farm as well as those from beneficiary farmers at Nyalani Irrigation Scheme.



The Project staff with a family farming where the upper check dam will be located. The farm has sugarcane and local vegetables that are sold locally and at Kongowea Market in Mombasa town

Do you want to share project impact stories, challenges or feedback?

KWSCRCP Communication Specialists:

Anastasia Mutisya —Lower Nzoia Project

Tel: 0721760576, amutisya@kwscrp.org

Dr Jane Waweru —Mwache Multi-purpose Project

Tel: 0720048458, janewaweru@kwscrp.org