



# The Snapshot Newsletter

## Kenya Water Security and Climate Resilience Project

Quarterly Issue 8, July 2022

### 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

## Construction of Temporary Housing at Mwache Dam Project Kicks Off



Ongoing construction of the temporary housing Units at Galilee that will house Project Affected People (PAPs) to pave way for the start of the dam construction

The construction of temporary housing in Mwache Dam Project commenced a month and a half ago in preparation to house Project-Affected Persons (PAPs) whose land may be required before they relocate after receiving compensation funds. As the date of commencement of the actual construction of Mwache Multi-purpose Dam works draws nearer, the project management is promptly addressing any hindrances that could cause delays. In cases where the contractor may require the land in priority areas sooner than the PAPs (upon receipt of compensation money) can construct their permanent relocation homes, the Mwache Dam resettlement action plan recommended the provision of temporary resettlement either by renting houses for the PAPs or construction of housing units. The project has opted to put up units of one, two, and three-bedroom houses on land acquired by the project in the Galilee area in Mazeras.

### Lower Nzoia Project Physical Works Progress as of July 2022

Activities	Completion Status
Diversion Weir and Flushing Sluice gates	100%
Intake Structure and two Avio gates	95%
Connecting channel	23%
Head works canal	95%
Headworks access road	95%
Emergency wier, cross regulator, two control gates:	95%
Sand trap, head regulator, four vertical gates	100%
Main canal lining (22km): 76% complete	76%
Duckbill weir cross regulator (14No.)	92%
Aqueduct (1No)	100%
Main canal cross drainage structures (52No.)	90%
Tertiary canal baffle distributor head regulator (19No.)	40%
Box culvert road crossing (23No.)	43%
Management Facilities Nyadorera	87%
Management Facilities Bunyala	90%
Rehabilitation of Bunyala scheme buildings: 90% complete	90%
Rehabilitation of Bunyala Irrigation Scheme (canals)	72%

## Lower Nzoia Project Scenario by December 2022

The Lower Nzoia Irrigation Project (LNIP) was envisaged to be completed in December 2022. The civil works status is over 58% complete as of July 2022. The irrigation infrastructure is expected to be completed by September 2023.

By December 2022, only the farmers in blocks 1-4 out of the 14 blocks (40% of the target irrigated area) might have access to the irrigation water. However, with additional funding, the project is expected to be fully operational by December 2023.

# Project Updates



The World Bank, KfW, and the National Treasury mission team in May 2022 visited the Lower Nzoia Project. They discussed the project collaboration and sustainability with the Busia and Siaya Counties Chief Executive Commissions for Agriculture.

**Left:** The mission team and the farmers' Irrigation Water Users Associations (IWUAs) during the irrigation management and operations training in the Makunda sub-location (block 14)

**Right:** The mission team, ISC, and PMU staff at the Busia County offices, (back row center) Dr. Osia Mwanje County Commission Agriculture, the World Bank task team leader Pieter Waalewijn and the Project Manager Eng. Simon Mwangi

The World Bank team also visited the Mwache Dam project area and held meetings with the project implementing teams on the ground including the resident engineer.



Meeting with World Bank team, PMU, NIPPON KOEI/MIBP Contractor Agencies, and WOKIKE at Kenya Coastal Water offices in Mazaras



The World Bank Team led by Task Team Leader Pieter Waalewijn, the Project Manager Eng. Simon Mwangi, and other project team members at the Mwache Dam site



# Lower Nzoia Project Updates

## Boost for Agricultural Support and Value Chain Income

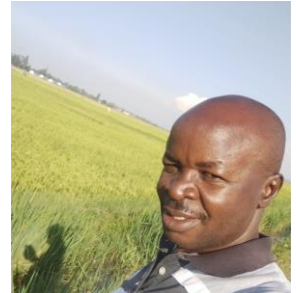
### Bumper Harvest for Rice Farmers

**William Muka** is one of the farmers trained by ISC on the use of System Rice Irrigation (SRI) technology. For the last four years, his paddy rice yield has increased from 25 bags to 52 bags on one-acre land. Additionally, he uses 12kg of seed as compared to 25kg in conventional farming.

However, weed control remains a challenge and the ISC is encouraging farmers to use herbicides instead of manual weeding as this saves time and is more effective. In collaboration with the support project implementation unit, Yara Company has trained the farmers on the applications of fertilizers and pesticides.

**Totobwire Mukinda** recently harvested his first crop at the expanded Bunyala Irrigation Scheme. He reaped 4,000kg (50 bags) of paddy rice on a 0.8 acre which he sold for Ksh 200,000.

"I have never seen such profits in my entire 10 years of rice farming. I keenly applied the skills we learned from the training and got support from the project staff," explains Totobwire.



### Cross-Learning Tour in Mwea Irrigation Scheme

The ISC staff visited Mwea Irrigation Scheme to benchmark the operationalization of rice mills and identify a model that would be feasible for the Bunyala Irrigation Scheme. The team explored the holistic development of the rice processing value chain from milling, sorting, grading, packaging, branding, and marketing. The staff also visited private mills in the area, who provide milling services to farmers at Ksh 3 per kilogram.



*William (center) and the ISC agronomist Dr. Miriam Otipa on his farm*

### Ongoing training of Extension and Value Chain Facilitators



The ISC is training 222 tertiary-based extension and value chain facilitators (3 per the 74 tertiaries) to enhance farmer access to extension services and markets. The facilitators will in turn train 148 produce and marketing groups in production, value chain development, and market linkages.



*Mwea Rice Mills Manager, Wachira Warutere (right) explains to the ISC staff about storage requirements for paddy and milled rice*

# Lower Nzoia Project Updates

## Boost for Agricultural Support and Value Chain Income

### Farmers to Mwea Irrigation Scheme



A group of farmers from the Lower Nzoia Irrigation Project visited Mwea Irrigation Scheme on a learning tour. The farmers visited the rice scheme and learned about irrigation management and operations. They held discussions with the rice Irrigation Water User Associations (IWUAs), cooperative societies, horticulture farmers, marketing groups, and millers.



**Felister Wangui** (center), a farmer in Mwea Irrigation Scheme explains to the LNP farmers how she irrigates horticulture crops for export.

“Understanding the market cycle is particularly important. I make more profits by exporting to Europe when they can not farm during the winter,” she says.

Additionally, Felister grows tomatoes and capsicum off-season for the local markets. She makes a profit of over two million Kenya shillings (2,000 USD) per year.

### Replicating Learned Skills



**James Mumbo** is one of the farmers in Block 1 who attended the learning tour at the Mwea Irrigation Scheme. Despite having attended the farmers’ training at the project, he had not started farming. However, after the learning tour to Mwea Irrigation Scheme has started farming tomatoes and Kales using drip irrigation.

“I realized I could start making money as I waited for the irrigation water,” says James

### SRI Komboka and FAN 10 Voted Highest by Farmers

Farmers at the Bunyala Irrigation scheme voted Komboka and FAN 10 from Seedco company as the most preferred rice variety.

The NIA and ISC team partnered with KARLO and IRRI to pilot SRI’s three rice varieties in the scheme. The trial considered amongst others, the maturity period, yield, pests and climate resistance, cost of production, thresh ability, attack by birds, marketability, and aromatic properties. All varieties were planted in a quarter of an acre each. The Komboka and FAN 10 varieties yielded about 3,360 kg of paddy rice, while the NPT yielded about 1,600kg and was harvested a week later.



# Lower Nzoia Project Updates

## Boost for Agricultural Support and Value Chain Income

### Increased Demand for Clean Planting Materials



The demand for clean planting materials from the demonstration shed net has tremendously increased from within and outside the project area. So far out of over the 120,000 seedlings produced, over 60,000 have been distributed to the farmers. The seedlings were initially distributed for free to trigger demand but now sell at Ksh 2-10 depending on the type and variety. To meet the demand, three more shed nets are being established at the demo farm.



**Stephen Ochieng** of Nyaraha farmers producer and marketing group (block 7) tending to tomatoes on his farm. Stephen is one of the farmers who got clean seedlings from the project demo shed net. From previous sales, he purchased a solar pump for drip irrigation. He makes a profit of over Ksh 150,000 per season.

“I left employment to concentrate on farming because it is more beneficial. The training and support from the project are of immense value to the farmers,” says Stephen.

Like other farmers who own small pieces of land, Stephen has leased a bigger piece to expand and diversify his horticulture farming. The farmer group encourages collective farming for its members to ensure a continuous supply of a variety of crops to the markets and control prices.



*Farmers have intensified markets and are supplying horticulture produce to learning institutions besides the local markets*

### Enhance Agri-nutrition Program in Schools

The LNIP is collaborating with the Ministry of Health and Busia County to promote agri-nutrition in schools. According to Busia County statistics, the county has 63%-74% poverty levels and malnutrition level is endemic. Twenty-five percent of children under five years are stunted, 11% are underweight, and 4% are thin for their age.

The program has commenced in Mubwayo Primary school and aims to sensitize teachers and pupils on the importance of agri-nutrition in human health, the use of different technologies, and management in growing vegetables, and fruits. The project has donated kales and watermelon seedlings from the

## Boost for Agricultural Support and Value Chain Income

demo shed net, crotalaria, spider plants, and cowpeas seeds. The pupils will be encouraged to practice the production of these crops at home and improve dietary intake at the household levels. The county has trained community health volunteers to promote nutrition and dietary diversity in the community.



*Judy Otieno, Ministry of Health Busia County demonstrates to pupils how to transplant seedlings at the multistory garden*

### Enhancing Partnerships with Stakeholders

Over 70 farmers (blocks 1-14), and stakeholders recently participated in a three-day farmer' field to discuss farming challenges and threats they face. The event was organized by the ISC and attended by KALRO IRRI, farmers cooperative societies, Digi Farm, NIA, KEPHIS, NCPB, MoA, AFA, Busia and Siaya Counties agricultural officers, and farm input dealers such as Yara fertilizers, Seedco Limite and Green Life.

So far, the SRI model farms have attained five (5) cropping cycles, and 25 crop technologies for high-value crops such as cereals, vegetables, fruits, legumes, pulses, spices, and herbs. About 1,286 farmers (9768 Male/518 Female) have been trained. Sixty (60%) of the rice farmers have adopted at least one of the rice technologies demonstrated, and six support project implementation unit staff and four county extension staff have been trained in the management of high-value crops. Over 3,000 farmers have timely access to agricultural inputs, credit, cropping, and post-harvest infrastructures and equipment in the project.



*Dr. Ruth Musila of KALRO addressing farmers*

### Management Information System

The establishment of the project Information Management System (MIS)/GIS/M&E platform is 45% complete. The service provider, Green Space Limited has trained the NIA, SPIU, ISC, and PMU staff and the water user associations on the usage.

The system will be piloted with the farmer groups in the Bunyala Irrigation Scheme and blocks 1-4 by September 2022.



*The water user associations being trained on the use of the Management Information System (MIS)*

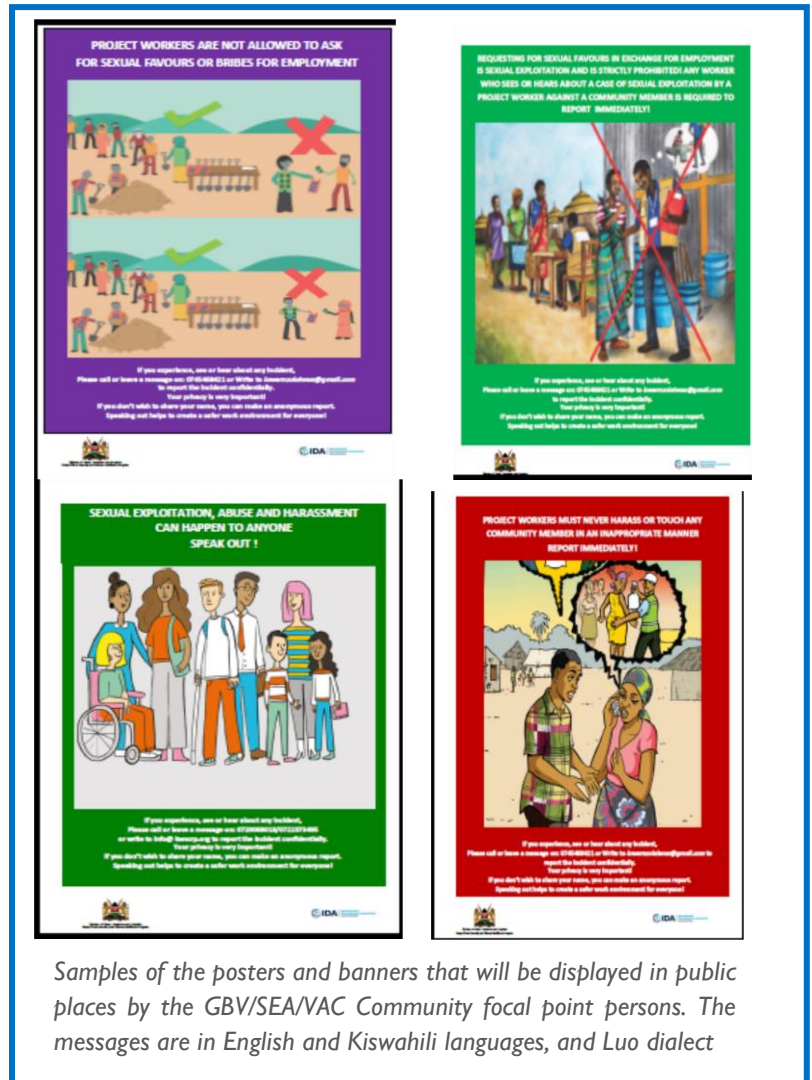


# Lower Nzoia Project Updates

## Advocating for Social Safeguards' Policies

The implementation of a gender-based program in primary and secondary schools is ongoing NLIP. This includes pictorial paintings on 28 primary and secondary schools in the 14 blocks.

The activities are implemented through the project's Implementation Support Consultants (ISC) in close collaboration with County's Education Departments and the Project Management Unit (PMU). This program is a key requirement of the project's social safeguards' policies and aims to create community awareness in mitigating and redressing Gender-Based Violence (GBV), Sexual Abuse, Exploitation, and Harassment (SEAH), and Violence Against Children (VAC). Additionally, some posters and banners will be disseminated through the trained GBV, SEAH, and VAC community focal point persons.



Samples of the posters and banners that will be displayed in public places by the GBV/SEA/VAC Community focal point persons. The messages are in English and Kiswahili languages, and Luo dialect

## Community Focal Point Persons to be trained on social safeguard policies and procedures



Some of the 30 community focal point persons were elected from the IWUAs and the Sand Harvesters Association. The election was done through a consensus community meeting in each block and has a representation of two members, a male, and female



Ongoing painting of pictorials in Busangwa Primary School, St. Anne's Secondary School, and Mukholoba Primary School, Busia County



# Mwache Multi-Purpose Dam Project Updates

## Construction of Temporary Housing at Mwache Dam Project Kicks Off

From Pg 1



*Some of the housing units under construction at the Galilee temporary housing site*

According to the resettlement action plan, PAPs who will have received their compensation but have not completed house construction on time for land that is required by the contractor will be hosted in the houses temporarily as they wait to complete their dwellings. The project awarded the construction works to local contractors namely; Emmerson Kenya Ltd, Kaya Kwale Traders, and Juliero Enterprises & Services who are also sourcing labour from the local community within the project area. Construction of the one and three bedrooms commenced over a month ago by Emmerson Kenya Ltd who is doing two-bedroom units and Kaya Kwale Traders who are doing the one-bedroom units. The construction of the three-bedroom units by another local company Juliero Enterprises & Services will commence soon after a slight delay in the acquisition of the parcel of land but which has now been finalized.

According to Eng. Jason Onger, the PMU supervising engineer, the housing units have one, two, and three bedrooms so as to accommodate the different family sizes. “They are being put up in a culturally sensitive way with kitchen and sanitation facilities outside the main houses. As a start, six units each for the three categories are being put up”. He explains. The construction project has created employment for tens of local community members both men and women. They acknowledged that the dam project was transforming their lives in many ways.

The land on which the site is situated was acquired by the project and owners compensated for it before being handed over to the contractors.

### Interim Livelihood Measures for PAPs

Since the beginning of 2020, the land acquisition process for Mwache Dam has been ongoing in earnest, with the majority of the PAPs being compensated and land handed over to the Contractor. The balance of unpaid PAPs and Parcels in Priority Areas 1 and 2 is a result of various types of grievances and issues which have inhibited the timely compensation of the PAPs including court cases, lack of land documents/records, delayed compensation by NLC, etc.

To avoid delays in the construction of the project, and following an agreement between PMU and the World Bank, several interim livelihood measures have/are being implemented in consultation with the PAPs so as to cushion the households' livelihoods due to the ongoing disputes and delays in compensation. These have included leasing the land from the PAPs as they await the compensation funds to allow the contractor access, undertaking small projects e.g., on poultry for the PAP, helping PAPs restock their shops to continue earning a living, etc.



*Halima Mwero, one of the PAPs who received interim support in restocking her shop. In the photo is her son (in black), and the wholesaler where Halima purchases items for her shop*



# Mwache Multi-Purpose Dam Project Updates

## GBV/SEAH Interventions in Mwache Dam Project

The project GBV service provider has consultatively developed a draft code of conduct (COC) and shared it with institutional heads and experts in Mwache for input. The high risks of Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH) linked to the MWACHE Dam project are based on several site-specific factors, including high levels of poverty in the construction area; the presence of project workers close to villages; rural location of the project; labor influx; the presence of project near schools; limited consultations with women and adolescent girls on GBV risks as part of the ESMP and RAP; limited GBV response capacity in the area. The consultancy is geared towards supporting the project team in the overall management of SEA and other gender-based violence (GBV) risks associated with the MWACHE Dam. Based on this background context, the code of conduct is expected to guide the different institutions dealing with the issues.

In the code is a section that gives a justification on evidence-based reasons as to why institutions and personnel are required to sign the COC, a project background, enumerates the oversight role of the GBV service provider; institutional commitment, and



*Quarterly interfacing and briefing with Community Focal Persons, Community Health Workers, Court users and*

expected type of behavior for leaders and managers. In addition, it outlines the expected personnel commitment, that is; their expected type of behavior, where to report in case of a SEA (Sexual Exploitation and Abuse) or SH (Sexual Harassment); and consequences/measures to be taken once the COC is violated.

All agency heads participated in the review of the draft, adoption, and signing. The adopted COC has further guided the development of job vacancy advertisements clauses; recruitment questionnaires by the contractor. All this is to ensure SEA/SH mitigation measures uptake starts right from the recruitment process. Additionally, compliance to the COC by all institutions leverages the buy-in, goodwill, and a strong message by the leadership that SEA/SH occurrence has zero tolerance. It is a show by institutions the level of commitment to creating a work environment that is free from SEA/SH violations for personnel, contractors, service providers, and other partners within/out of the project. Consequently, this will build a project culture of being part of the solution in changing personnel attitudes on what entails sexual violence.



*Sensitization of NIPPON KOEI/MIBP Contractor Agencies management at Kenya Coastal Water offices in Mazaras*

# Mwache Multi-Purpose Dam Project Updates

## Boost for Agricultural Support and Value Chain Income

### Agricultural Support for PAPs at the Upper Check Dam Area



*PMU and WRA staff visiting farmers who are implementing the irrigation demonstration activities in Vitakafiri Village, Mwache during a recent field visit*

As preparation and implementation of an irrigation demonstration scheme (IDS) for about 100 ha at Pemba-Upper check Dam continue to be undertaken, a small demonstration plot has been established along the Dam axis. The demo plot is hosted by farmers and is serving as a training point for other farmers in the area. A number of such demos are being setup across Pemba and the surrounding catchment. Under this sub-component, a number of activities are ongoing. One of the components include strategies and activities for irrigation development and the implementation of different agricultural practices. This entails giving support Upper Mwache farmers doing artisanal irrigation with micro irrigation facilities to enhance their production; and strategies to utilize 100 household water pans dug by NIA and water ponds along the Mwache river are ongoing targeting a cumulative 40 acres of assorted vegetables and small cereals.

Another activity entails demonstration of improved crop varieties. New crop, tree and pasture species and varieties have been introduced and adopted in Nyalani, Pemba and Mwache. Thirdly, is the development of markets and value chains for crops. Markets in the urban areas of Kwale, Mombasa and Kilifi are being established for farmers and farmers trained on post-harvest handling, price setting strategies and customer relations. In addition, demonstration of irrigation technologies and

which has involved testing, demonstration of the basin and drip irrigation in Nyalani, Pemba, and related areas. Irrigation Water Users Association (IWUA) at Nyalani irrigation Scheme are also being strengthened. Another activity is about incorporating findings from the adaptive research in agricultural development in the project area. Kwale County and other stakeholder extension systems are regularly appraised on findings for dissemination. The officers in Pemba, Mwache, Nyalani, and surrounding areas use these findings in training farmers on GAP both for irrigated and rainfed crops. Working with CDA, WRA, and partners, farmers are trained on Agroforestry and pasture management with one farmer group enabled to develop a tree and vegetable nursery to serve the surrounding areas. Promotion of fencing as a fodder development and preservation as well as catchment management strategy has also been key. Lastly, a key activity is supporting the resettled PAPs to return to farming and ensure household food security and income. Working with the RIC and the county agricultural extension and livelihood support teams, resettled PAPs are trained and supported to establish crops and small stock to complement their food security and incomes. The strategy at first faced resistance but with sensitization, it is gaining traction with initial groups having harvested their first produce.

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

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