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Editor's Note



Mr Daniel M. Nzonzo, HSC

Principal Corporate Communication Officer

The 20th issue of the Irrigation News is here thanks to the support we receive from you as our reader. The number 20 comes with wholeness, new drive, steadiness, a unified sense.

This edition focuses on the Upper Rift Region, specifically Turkana and West Pokot counties. We bring you initiatives and projects that underscore our commitment towards agricultural prosperity in line with the Bottom Up Economic Transformation Agenda (BeTA). From innovative irrigation techniques to community engagement efforts, there is evidence of growth.

As you go through this issue, I encourage you to reflect on the critical role of irrigation in supporting food security, economic growth, and environmental sustainability. Among others, you will read an interview with the officer in charge of Lokubae Cluster Irrigation Project, Mr James Aperiet, who shares his thoughts, passion and dedication to work.

We urge you to keep sharing your insights and opinions.

Cheers.

Chairman’s Note

In navigating the constantly shifting agricultural landscape, we need to recognise the critical role of irrigation in increasing growth and safeguarding our future. Our dedication to innovation in irrigation methods is a key pillar in our quest for agricultural success.

During the quarter, the Board toured irrigation projects and schemes in the Eastern region, including Mwea Irrigation Development Project (Package I and II), Mwea Irrigation Scheme, Bura Irrigation Development Project, Bura and Tana Irrigation schemes. The board got an opportunity to pay a courtesy call on the Kirinyaga County Governor through the Deputy Governor, H.E David Githanda, where we discussed collaboration opportunities to boost Mwea Irrigation Scheme farming.

In Bura, we were delighted with the progress of the gravity project and pledged to hasten it to ensure timely completion. In Tana, we paid a courtesy call on DCC Hola and addressed issues such as fertiliser distribution, establishing strong cooperatives, and National Irrigation Authority (NIA) land encroachment.

We visited the Governor’s office, where we explored potential collaborations such as helping farmers with extension services, capacity building and crop value addition. Tana River County Governor, H.E Maj. (Rtd) Dr. Dhadho Godhana, committed to working with the NIA and other stakeholders for farmers to receive enough support to maximise the advantages of crop production.



Eng. Gilbert Maluki
Chairman of the Board

During our interactions with the farmer representatives from Mwea, Bura and Tana Irrigation schemes we agreed to gradually increase food production and fully use the installed infrastructure to increase household income and reduce importation as outlined in the Bottom Up Economic Transformation Agenda (BeTA).

The NIA is committed to serve the nation with a strong belief that, gradually, we will achieve the much needed food security.

CEO's Note



Eng. Charles Muasya, MBS

Chief Executive Officer

During the third quarter, the Authority hosted His Excellency Hon. William Samoei Ruto, PhD., C.G.H. President of the Republic of Kenya and Commander-In-Chief of the Kenya Defence Forces to commission some of the completed irrigation projects. They include the Mweru Umoja Irrigation Development Project in Meru County covering 500 acres, benefiting 1,000 farmers directly and 2,500 individuals indirectly. The 500-acre Changachicha Irrigation Project in Nyeri County benefiting 1,600 households. The Rwabura Irrigation Project in Kiambu County covering 1,500 acres supports high-value commercial vegetable cultivation. The projects will play a huge role in contributing to Kenya's food security goals as we work on their expansion to reach more farmers and tap their full potential.

The Authority is in the process of revamping Ahero Irrigation Scheme

pumping station by adopting solar power to reduce the cost of operation and improve on sustainability. The solar photo voltaic system will also improve efficiencies and enhance production and reduce the demand for electricity from the national grid. This follows the signing of a Tied-aid Credit Agreement on the Rehabilitation and Upgrading of Pumping Station in Ahero Irrigation Scheme, Kisumu County on March 27, 2024 by the Cabinet Secretary for National Treasury and Economic Planning Prof. Njuguna Ndung'u and Mr. Kornél Kisgergely, president and CEO of EXIM Bank of Hungary.

The rehabilitation will expand paddy rice production by 1,000 acres in the Kobongo expansion area while the pumping system upgrade is expected to save Kshs.15,519,367.14 annually in electric operation costs that will be reinvested in irrigation water management.

The increased water reliability will lead to more land under irrigation, higher crop productivity, and increased farm income. This enhanced production will also support agro-processing of rice, creating 7,500 direct jobs and 15,000 indirect others. Overall, it is projected to generate an additional income of Kshs.80,000,000 in the expansion area.

The Authority continues to engage private investors who have expressed interest in Galana production, Galana Dam and other dams under Public Private Partnership (PPP) framework. These efforts are geared towards realising the Government targets in the Bottom Up Transformation Economic Agenda (BeTA).

Katilu Irrigation Scheme: Transforming lives, nourishing communities



Maize field in Katilu Irrigation Scheme



By [Brendah Rajwayi](#)

After travelling through fields of brown and braving the famous ‘mathenge’ plant introduced in 1984 to stop desertification, the edible greens of Katilu Irrigation Scheme emerge. Endless tracks of maize blossom and

then appear watermelons too big to hide under their leaves and uncountable lines of green grams. It is a haven that reveals the side of Turkana County that is barely known.

Launched in 1966 and operations taking off in 1970 through a collaboration between the Ministry of Agriculture and the Food and Agricultural Organization (FAO), Katilu Irrigation Scheme is a testament to resilience and ingenuity. This initiative aimed to settle nomadic families from famine camps and cultivate hope in

the barren land.

The scheme lies approximately 130km south of Lodwar town, along the perennial Turkwel River. It has flourished into a beacon of agricultural prosperity from its humble beginnings of 500 acres where each family is allocated an acre as tenants to its current expansion covering more than 1,500 acres benefiting 3,000 farmers. The scheme stands as a testament to the power of perseverance and collaboration.

Over the years, it has

undergone significant transformations, from furrow to basin irrigation systems by the Norwegian Agency for Development Cooperation (NORAD) through the Ministry of Agriculture in 1982 to the adoption of high-yielding crop varieties courtesy of the National Irrigation Authority (NIA). Through the efforts of the NIA, the scheme has seen remarkable achievements, including the construction of dykes, rehabilitation of intake structures, and extensive canal lining and maintenance.

The Authority has not only focused on enhancing irrigation infrastructure but also on capacity building and market linkages for local farmers. “Through initiatives like contract farming with the County Government, National Cereals and Produce Board, Kenya Seed Company, and collaborative efforts with stakeholders, farmers have been empowered to access credit facilities and inputs, leading to increased crop yields and economic empowerment,” Mr Philip Juma, the officer-in-charge at Katilu Irrigation Scheme, says.

In recent years, the scheme has ventured into seed production with a pilot maize seed that yields between 18-35, 90kg bags per acre. Other crops grown here include green grams yielding about nine 90kg bags per acre, sorghum yielding about eight, 90kg bags per acre, watermelons more than 5,000kg per acre, and tomatoes more than 4,000kg an acre.

Other crops introduced by the Authority with great success include Nerica 4 rice yielding 25 paddy bags of 75kg per acre, DKC 90-89 maize yielding 30 to 35, 90kg bags per acre, and DKC 777 maize yielding 25 to 30, 90kg bags per acre. The high-yielding maize varieties - DKC 90-89, DKC 777, SY 594, and Pioneer 30G19 were introduced in the scheme in 2018. Besides the high yields, the varieties

are also resistant to pest and disease attacks. The Authority together with Katilu Farmers’ Cooperative Society has also improved the handling of harvested crops by providing weighing balances, tarpaulins for drying, maize shellers, wooden pallets, and moisture meters. Despite challenges such as drought and theft, the scheme continues to innovate and adapt, driven by the commitment to improve livelihoods and ensure food security for the community.

The benefits of the Katilu Irrigation Scheme extend beyond agricultural productivity. “I am grateful to NIA for installing irrigation infrastructure, expanding this irrigation scheme,” Mr. Milton Loito, the vice chairman of Katilu Irrigation Scheme, says. “The scheme has transformed lifestyles, shifting our people from nomadic to permanent residence and fostering socio-economic development in the region,” he adds.

According to Joseph Natapar, a farmer in Katilu Irrigation Scheme, the scheme has provided



Mr. Joseph Natapar, a farmer in Katilu Irrigation Scheme inspecting his maize.

him a stable source of income enabling him to school his children using the earnings from his two-acre farm. “As a pastoralist, I lived

forever watching my back, always fighting over livestock with the Pokots. Farming has provided more peace and stability,” he adds.

“We have fertile soil here. The water from River Turkwel also flows all year through. Having fertile soil and sufficient water to farm throughout the year as well as Kenya Seed buying seed maize from us, has enabled me to educate my children, clothe them, and buy more cattle,” Michael Dogoroboss, a farmer in Katilu Irrigation Scheme, says.

Johnstone Nyurle, a farmer in the scheme, echoes that the scheme has created employment opportunities, reduced dependency on relief food, and spurred the growth of subsidiary industries, such

as transportation and trading. “We are now collaborating with well-wishers more sustainably in that instead of them providing relief food, now they help with land preparation and providing seeds and fertilisers to help ensure that we produce as much food as possible. Our people are not afraid to put their hands to work,” he concludes.

The Authority regularly sensitises farmers and uses partnerships to overcome challenges such as slow land preparation, livestock interference, and institutional capacity.

Katilu Irrigation Scheme has a 3.5-acre model farm for crop research and education of farmers on best practices. The

model farm has several fruits and vegetables, including bananas, pawpaws, mangoes, tomatoes, cowpeas, kales, and butternut. “Initially, we were cropping sorghum and maize only. Now we grow fruits and vegetables as well which we thought were just wild plants,” Michael Silale, a farmer at the scheme, says. Mr Philip Juma adds that Katilu supplies a lot of watermelon to the hotels in Lodwar town.” He adds that the soil is very fertile and due to the heat in the region, the scheme produces sweet watermelons of up to more than five kilogrammes.

Katilu scheme is revealing the agricultural potential of Turkana County through irrigation. Currently, more than 1,500 acres have been opened up to irrigation out of a potential 2,500. Through vision, perseverance, and collaboration, this potential is achievable. The Authority, Katilu Farmers Co-operative Society, the county government, stakeholders including NGOs, and farmers are working to realise this goal. As the scheme continues to nourish the land and uplift communities, it stands out as a source of inspiration today and for generations to come.



Mr. Johnstone Nyurle (L) and Mr. Joseph Natapar (R), inspecting their maize farm in Katilu Irrigation Scheme.

Lokubae scheme is here with three meals a day



Farmers in their sorghum and millet farm in Elelea Irrigation Scheme, Turkana County



By Rhoda Mbuvi

Lokubae Cluster Irrigation Scheme holds Lokubae, Elelea and Morulem projects in Turkana East Sub-County's Lokori area. Since Ben Webster, a missionary from America, in conjunction with Turkana Rehabilitation Project inaugurated the scheme in 1983, it has been relying on the waters of seasonal River Kerio for irrigation.

Water flows through gravity

to the farms, explained James Aperiet, the officer-in-charge. The cluster has irrigated 5,540 acres with 10,518 farmers growing maize, sorghum, cow peas, green grams, vegetables (kales, tomatoes, and spinach), watermelon and recent addition, groundnuts.

Lokubae, which combines two centers— Lokwii and Lotubae— started on 106 acres with 875 farmers, each owning an eighth of an acre. In 1984, the project phased out, leaving management of the farms to local farmers and community leaders. In 2001, World Vision Kenya came in with funding from USAID and expanded it to 1,260 acres, increasing the number of farmers to 3,675.

When the NIA came on board in 2011 through the National Expanded Irrigation Programme (NEIP), the project expanded by 1,000 acres and another 300 acres in 2020/2021, growing the acreage to 2,560 with 4,678 farmers.

As Hosea Ekeno, a farmer and the chairman of the project, spells out, Lokubae Irrigation project has 3,000 women farmers while 1, 678 are men. "This land has saved us from drought. When the NIA came in 2011 they found the farm infested with 'Mathenge' plant (*Prosopis juliflora*) while some farmers had abandoned their farms. They cleared the bushes, did the canals and enabled us to produce," says Mr Ekeno.

"The NIA facilitated us to move from pastoralism to irrigated agriculture. Before, we used to feed on milk, meat and blood and survived on one meal a day. Now, we take three meals a day, thanks to the NIA," he told Irrigation News.

Loice Ekaale, a mother of three children now in college, says farming "has helped us in educating our children and feeding our neighbours

who have not been fortunate to get space for farming.”

Abei Ebongon is optimistic that the Lowaat Dam will expand farming in the region. She said: “Sisi anaomba dam. Atasaidia sisi, hapana shamba kukauka na chakula kuharibika” (We ask for a dam. It will help. The farms will not dry up or lose our food crops).

Lowaat Dam is one of the proposed Public-Private Partnership projects in Turkana County with a reservoir capacity of 348 million cubic metres, targeting to irrigate 37,065 acres. The project feasibility is under review.

Elelea Irrigation Project started off on 400 acres with 800 farmers, each allocated 0.5 acres. In 2018/2019 and 2019/20, the acreage was expanded to 600 and 300 more in 2020/2021, taking the scheme’s total acreage to 1,300 and 2,600 farmers.

Danfestus Koloi, a farmer and the project farmers’ secretary, said: “Elelea irrigation project began in 1983 by an American who did 400 acres. The NIA arrived here in 2021 and added 600 acres, renewing our farming. We moved from pastoralism to irrigated farming, growing maize, millet, green grams, watermelon, cowpeas and now groundnuts. We are benefiting a lot.”

“We are grateful to the Government through the NIA for Elelea Irrigation Project and ask for expansion, especially construction of Lowaat Dam, which will enable farming throughout the year,” he said.

Nakieny Ibuya thanked the NIA for “a great help” through irrigated agriculture. “Although our neighbours took our livestock, we have these farms as our treasure. Through you, my family is doing well and I have been able



Farmers in Lokubae Irrigation Scheme weeding in their greengrams farm.

to share with my neighbours. Thank you, Government,” Ibuya said.

Kaling’anyang’ Lokunia says the NIA project has uplifted his life while Moses Ewoi links good health to the project since “malnutrition has now become a thing of the past thanks to farming.”

Morulem Irrigation Project began on 450 acres with 776 farmers. In 1985, the project was phased out, leaving farmers in charge until 1992 when World Vision came in to expand the scheme. The acreage and number of farmers increased to 780 and 1,500 respectively and the arrival of the NIA in 2019 under NEIP added 600 acres initially and another 300 in 2020/2021. In total, the scheme has 1,680 acres and 3,240 farmers.

Mr Aperiet says the Lokubae project has improved the community’s way of living where farmers “now have permanent houses and can afford three meals a day, balanced diet.”

There are seven primary schools and four secondary schools in the area, he says, adding that “the change is enormous. I can imagine the transformation we will have here when Lowaat Dam will be a reality.”

A million acres: How well irrigated Turkana County can feed Kenya



Maize field in Elelea Irrigation Scheme, Turkana County

Insert: Water gate in Lokubae Irrigation Scheme



By **George Maina**

Turkana County lies in the north western parts of Kenya bordering West Pokot and Baringo counties to the south, Samburu County to the south east, and Marsabit County to the east.

It is the largest county in Kenya with an area of 71,597 km². Turkana also borders South Sudan to the north, Uganda to the west and Ethiopia to

the northeast. It is one of the 27 counties in Kenya that are classified as arid and semi-arid lands (ASALs) based on the low amounts of rainfall it receives in a year. Turkana residents are principally pastoralists, but they are also in small-scale agriculture.

Drought, flooding, inadequate water for irrigation and domestic use and insecurity as communities fight for scarce resources give the residents sleepless nights and long days.

To address some of these challenges, the Government through National Irrigation Authority has developed irrigation schemes in five constituencies of Turkana County since 2010: Turkana

South, Turkana East, Turkana Central, Turkana West and Loima.

According to Mr Hosea Rotil, a farmer and the chairman of Lokubae and Elelea Irrigation schemes, the projects have helped farmers to produce enough food for their families, educate their children, and have water for their animals and domestic use. They are able to sustain themselves and help the neighbouring communities with food. This has helped reduce conflicts.

Kaling'anyang' Lokunia, another farmer at Elelea Irrigation Scheme, says building of an intake, canals and water control structures

for them was a game-changer. These structures have helped them to irrigate farms and increase production and harvest enough crops for own consumption; they no longer beg for food or rely on relief supplies.

The Authority is also collaborating with other stakeholders to ensure adequate use of installed irrigation infrastructure. Equally, the Authority is reviewing the projects so as to address challenges of unstable intakes and floods. The construction of Lowaat Dam on the Kerio River will modulate the flows within the basin and address the seasonality challenge of the river to enable full use of irrigation infrastructure in the Lokubae clusters. To realise one million acres under irrigated agriculture as envisioned in the BETA agenda, the Authority is assessing water and land resources to come up with an investment strategy and road map for sustainable irrigation in Turkana County.

According to Eng. Felix Shiundu, Regional Coordinator of Upper Lift region, the Authority has developed Katilu Clusters (Katilu, Lokapel, Nabeye, Namakat, Simailele, Nakwamoru)

within, Turkana South that abstracts irrigation water from river Turkwel. The cluster has a potential of 15,000 acres. Currently, 2,500 acres are under irrigation.

In Turkana East, the Authority has developed Lokubae Clusters (Morulem, Lokubae and Elelea) which abstracts its irrigation waters from River Kerio. The cluster has a potential of 10,000 acres under irrigation, however 5,500 acres are now under irrigation. In Loima, Turkwel central and Turkwel west, the Authority has developed Loima clusters (Naipa, Naremit, Kolioro, Kabulokor, Kalemnyang, Nakamane, Nadapal, Kangelita, Lobotrot), Nadoto and Naoros irrigation projects and Nanam Irrigation Project respectively. A total of 3,230 acres are under irrigation against a target of 15,200 acres.

Turkana County has an irrigation potential of more than 1 million acres based on the published surface and ground water resources. AS per the flows of Kerio and Turkwel rivers, the county has a surface irrigation potential of 42,000 acres while the area under irrigation is about 10,000 acres within the two river basins.



Maize field in Katilu Irrigation Scheme

Pictorial



1. H.E. Hon. William Samoei Ruto, PhD., CGH. President of the Republic of Kenya & Commander-In-Chief of the Kenya Defence Forces (Left) and Cabinet Secretary Ministry of Water, Sanitation, & Irrigation Mr. Zachariah M. Njeru, EGH (Right) during the launch of Mweru Umoja Irrigation Project in Meru County on January 27, 2024.
2. H.E. Hon. William Samoei Ruto, PhD., CGH. President of the Republic of Kenya & Commander-In-Chief of the Kenya Defence Forces (Left), H.E the Deputy President of the Republic of Kenya Hon. Rigathi Gachagua (Right) and Cabinet Secretary Ministry of Water, Sanitation, & Irrigation Mr. Zachariah M. Njeru, EGH (2nd Right) during the launch of Rwabura Irrigation Project in Kiambu County on February 15, 2024.
3. H.E. Hon. William Samoei Ruto, PhD., CGH. President of the Republic of Kenya & Commander-In-Chief of the Kenya Defence Forces (opening the water tap) during the launch of Changachicha Irrigation Project on February 14, 2024.



4. His Excellency the Deputy President of the Republic of Kenya Hon. Rigathi Gachagua officially launched the construction of Matasia (silanga) irrigation project in Kajiado North Constituency, Kajiado County.
5. CS Ministry of Water, Sanitation and Irrigation Mr. Zacharia M. Njeru EGH (2nd Right), PS State Department for Irrigation CPA Mr. Ephantus Kimotho, CBS (on a purple shirt), NIA CEO Eng. Charles Muasya, MBS (Right) and other senior officials inspecting the progress of ongoing works in Galana Kulalu Project on March 20, 2024.
6. CS Ministry of Water, Sanitation and Irrigation Mr. Zacharia M. Njeru EGH (2nd Left), PS State Department for Irrigation CPA Mr. Ephantus Kimotho, CBS (Right) and NIA CEO Eng. Charles Muasya, MBS (Right) applying fertilizer on paddy field in Ahero Irrigation Scheme on March 27, 2024.
7. The Senate standing committee on Agriculture, Livestock and Fisheries led by its chairman and Kirinyaga County Senator Hon. Kamau Murango (2nd Right) being taken through Thiba Dam model by NIA CEO Eng. Charles Muasya, MBS (wearing a green blazer) in Kirinyaga County on March 16, 2024.
8. National Treasury and Economic Planning Prof. Njuguna Ndung'u and Mr. Kornél Kisgergely, President and CEO of EXIM Bank of Hungary during the signing of a Tied-aid Credit Agreement on the Rehabilitation and Upgrading of Pumping Station in Ahero Irrigation Scheme, Kisumu County on March 27, 2024.

Staff News



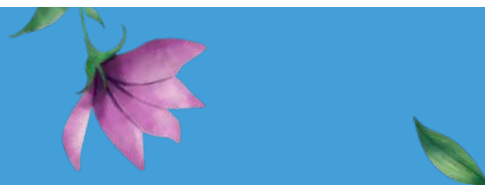
The Authority participated in the 7th Edition of Africa Agri-Expo 2024 held at The Sarit Expo Centre between February 19 and 20. The Authority's CEO, Eng. Charles Muasya, MBS, was one of the eminent speakers on the investment opportunities in irrigation, especially through Public Private Partnerships. Some of these opportunities include big dams, irrigation technologies, and capacity building for farmers among others.

The Authority got a trophy for being a key supporting partner of the Expo.

Congratulations!



Elizabeth Wambui, Oscar Mutiga and Bradox Mijoro got bundles of joy. Congratulations! May God's favour carry the babies through all the days of their lives.



OBITUARY

In the quarter, we lost Lina Bowen, who was stationed at Perkerra Irrigation Scheme where she had served for 29 years.

Lina was calm, good-hearted, loving, supportive, team player, and compassionate.... Her memories are fresh in the hearts of the NIA family. Continue resting in peace, Lina.

To all who lost their loved ones in the quarter, may you find peace in the Lord.



2024 World Water Day Celebrations

In celebrating this day, the Authority put up a one-acre demonstration farm at Liter Secondary School under Hass avocado tree seedlings, onions, kales, spinach and cabbage under sprinkler irrigation system.

The Authority also distributed 1,500 Hass avocado tree seedlings to the communities living near Liter Primary and Secondary schools.

The World Water Day is celebrated every March 22 since 1993 in conformity with the recommendation of UN Conference on Environment and Development contained in Chapter 18 of Agenda 21. This was the 32nd edition of World Water Day under the Theme "Leveraging Water for Peace".

Irrigation restoring peace, fostering economic growth in West Pokot



By Johnbosco Obonyo

For decades, West Pokot County has suffered instability due to limited pasture and cattle rustling that ferment conflicts and lead to loss of life and economic stagnation. Because there are no alternative livelihoods, there has been a cycle of poverty and violence.

Despite these problems, a ray of hope came with the development of the Chesang'atat/Marich Irrigation Project in Pokot Central (Sigor) Constituency. It is located 80 kilometers from Kapenguria town on the Kitale-Lodwar route and seven kilometres from the Marich Pass shopping centre.

The National Irrigation Authority (NIA) launched the project under the National Expanded Irrigation Programme to offer the pastoralist community an alternative source of income. Due to financing



Farmers harvesting sorghum Chesang'atat/Marich Irrigation Project in Pokot Central (Sigor) Constituency, West Pokot County

constraints, the project was conducted in three phases between 2014 and 2019.

It has been a remarkable transformation, the community says about the project involving a pressurised irrigation system that uses overhead sprinklers to water 350 acres of communal farms. It harnesses the waters of Muruny River to turn arid plains into rich farmlands. With access to a reliable water supply, farmers have diversified their crops beyond subsistence agriculture to venture into high-value cash crops.

Apart from enhancing agricultural output, the project is a viable alternative to pastoral-

ism while it is also reducing cattle rustling.

“This project has helped us feed our families abundantly with enough to share with our neighbours,” says Magaret Lonyalio. “Increased money from farming has allowed me to invest in my children’s education, providing them with possibilities for learning and skills development that most of us never received.”

Mathayo Tirono, a chief and also a farmer, praises the project for opening up economic prospects as community members land a common ground for pursuing shared wealth rather than engaging in disputes and cattle rustling.

He further notes that the initiative is employing people in West Pokot as well as the surrounding areas of Baringo and Turkana County.

Today, the chief asserts, people are building permanent houses to replace temporary shelters, a development that promises stability.

The NIA has trained farmers and linked them up with private companies who engage them in contract farming to crop sorghum and maize. The farmers also produce green grams, commercial maize, groundnuts, bananas and horticultural crops.

Joseph Limang'ole, the secretary of the project, states that since 2021, Seedco and EABL have contracted farmers through the Irrigation Water User Association, to produce seed maize and sorghum respectively. For four seasons, the community has realised an average gross income of Kshs15 million per season.

“We are grateful to the NIA for initiating this project, as it has yielded insightful results that

the community is now reaping the benefits with hope for a brighter future in irrigated agriculture. More than 24 local children have enrolled in universities, and we eagerly anticipate the government’s commitment to opening up more land for irrigation” said Dickson Patei.

Eng Felix Shiundu says the Authority is taking proactive steps to engage the community and key stakeholders in harnessing the irrigation potential of 1,000 acres in the area through the Public-Private Partnerships to complete the remaining phase. “The NIA is exploring the possibilities of having a water reservoir along Muruny river; feasibility studies towards that end will be initiated,” said Eng Shiundu.

The success of this project reveals the transforming power of irrigated agriculture as a catalyst for change, not just in conflict resolution but also in promoting sustainable development and equitable growth.



A farmer working in his farm Chesang'atat/Marich Irrigation Project in Pokot Central (Sigor) Constituency, West Pokot County

Demystifying Irrigation Term: Desilting



By [Pauline Wanjiku](#)

Desilting is the process of removing silt or sediment deposits from waterways, reservoirs, canals, or other water bodies. Silt can be brought by erosion, runoff, or other natural processes.

The process restores and enables effectual capacity and efficiency of irrigation water systems for instance, canals, water pans, and

large dams by preventing blockages and improving water flow. It is done through dredging, sediment trapping, and mechanical or manual removal of sediment.

Desilting plays a vital role in irrigation by addressing sedimentation in canals, reservoirs, pump intakes, distribution networks, and other components of irrigation infrastructure. This is done through maintaining clear water pathways and optimal system performance; de-siltation helps to deliver a reliable and efficient water supply for agriculture.

In a place that experiences floods like Turkana (during the long rains) desilting

plays a crucial role in floods management and mitigation by restoring natural drainage patterns, protecting infrastructure and agricultural land, and promoting environmental resilience in areas prone to flooding.

The best time to desilt is when conditions are conducive to safe and effective sediment removal while minimising negative impacts on the environment and water users. This requires careful planning and coordination with local stakeholders, water management authorities, and environmental agencies.



[Disilting of a canal in Bunyala Irrigation Scheme](#)

Word Search

Try locating eight irrigation systems.

I	Z	C	D	U	I	T	R	F	O	L	O	P	N	C
V	X	A	R	S	D	E	T	U	W	V	W	R	H	L
S	P	R	I	N	K	L	E	R	V	X	Z	M	O	N
E	R	W	P	C	H	I	A	R	V	O	U	A	E	B
V	H	G	E	B	F	L	O	O	D	B	A	N	I	A
U	J	H	S	E	T	A	R	W	O	L	F	U	X	S
C	E	N	T	E	R	P	I	V	O	T	E	A	E	I
O	W	T	A	G	R	X	Z	B	V	M	S	L	K	N
N	O	I	T	A	G	I	R	R	I	B	U	S	A	D

Solutions for word search in the 19th edition of ‘Irrigation News’: Eight irrigation projects under the Expanded National Irrigation Programme in the Lower Eastern and Coast Region that were featured in the 18th issue of the newsletter.

S	N	X	V	O	P	L	Y	F	H	A	B	K	P	L
Y	I	K	I	T	A	A	G	X	Y	B	F	W	C	A
M	I	N	J	O	R	O	K	U	B	W	A	A	X	W
B	Y	L	E	L	I	E	I	W	K	D	O	M	P	R
K	A	U	T	I	V	T	Y	Q	Q	B	K	A	Q	G
A	P	U	R	D	I	H	W	F	M	P	V	J	W	V
K	A	K	O	K	A	T	H	O	N	Z	W	E	N	I
Q	M	B	G	G	N	Q	R	B	Q	W	Y	E	Y	Q
U	P	K	H	K	I	M	O	R	I	G	O	T	D	W





Mr. James Aperiet
Officer-in-Charge, Lokubae
Clusters in Turkana County.

James Aperiet: Shepherd boy who became agricultural pioneer



By **Brendah Rajwayi**

In the arid Turkana County, a dominant pastoralist region, has emerged a beacon of change, Mr. James Aperiet. Mr Aperiet is the Officer-in-Charge, Lokubae Clusters in Turkana County. Lokubae Clusters include Lokubae Irrigation Scheme, Elelea Irrigation Scheme, and

Morulem Irrigation Scheme. Mr. Aperiet’s journey is one of resilience, determination, and unwavering commitment to his family, community, and the land that sustains them. He shared his journey with the Irrigation News.

May you tell us about your upbringing and early years in Lokori, Turkana County?

I was born in 1983 in Lokori, Turkana County. I come from a family of four made up of my mother, father, and younger brother.

What are your most memorable moments as a

child?

Growing up, I spent my days as a shepherd boy, looking after my parents’ goats and sheep. I recall reading story books while grazing the animals. I loved it. I can say I always had a love for learning and reading. I attended Lotubae Primary School and later Katilu Boys Secondary School for my high school education.

What did you venture into after completing your high school education?

I finished high school in 2002. I got married in the year 2004. Together with my wife,

we would welcome our first child two years later. We have seven children; four boys and three girls.

I wanted to give back to my community and make a difference in the lives of others. Teaching seemed like the best way to do that. I, therefore, volunteered at Lotubae Primary School for two years before pursuing further studies in agriculture.

My desire to give back to my community would see me apply for the 'Turkana Education for All' programme by Oxfam in 2010. Empowered

knowledge and self-reliance. I would later write to the Ministry of Education to start a school for the people I had educated, a request that was honoured.

Tell us about your journey into agriculture and your experiences.

In 2006, I enrolled at the Sang'alo Institute of Science and Technology to study General Agriculture. It was a transformative experience for me. I learned valuable skills and gained knowledge that I could apply to benefit my community. I took part in sports and ran long distances.



Mr. James Aperiet inspecting millet in Elelea Irrigation Scheme, Turkana County

with the tools to educate and inspire by Oxfam, I embarked on a mission to uplift my community, teaching people of all ages the importance of

This accorded me an opportunity to go all the way to Nakuru for competitions when I was in college. To see other parts of this country was

eye-opening.

How did your career at the National Irrigation Authority begin?

Growing up in Turkana you are raised to be aware of your environment and that meant putting my ears on the ground.

It was in 2011 when I heard that there was an engineer who was visiting Lokubae because the Government wanted to implement some projects there. I seized the opportunity to introduce myself to the engineer; Eng. Felix Shiundu of the National Irrigation Authority then, National Irrigation Board during the pre-feasibility study in Lokubae. I expressed my interest in contributing to irrigation projects in the area, we exchanged contacts and kept talking.

I became his contact person. Later in 2011, Mr. Enos Wafula from the Authority visited my region and I gave him an application letter to take to head office in Nairobi. Through the letter, I got a one-year contract job as an Assistant Field Clerk. In 2014, I was confirmed as an assistant irrigation officer in Lokubae Irrigation Scheme where I worked up to the year 2018. In 2018, I was promoted to become irrigation officer

and doubled as the Acting Officer-In-Charge in the scheme. In 2019, I was confirmed as the in-charge of Lokubae and Elelea irrigation schemes and continue serving up to now.

What are some of the most significant challenges you've faced in your personal and professional life?

One of the most tragic moments was when I, along with my colleagues, Enos Wafula (former scheme manager Lokubae and Elelea Scheme and Perkerra Irrigation Scheme) and Francis Losege (now at Head Office) were attacked by bandits on our way to work. It was a terrifying experience, and we lost valuable belongings, including my academic papers. I saw my life flash before my eyes. However, I'm grateful to be alive.

A very low moment in my life was when my wife fell ill, and I had to defer my studies to care for her. I had just enrolled for a Master's degree in Agricultural Extension at Egerton University. It was a challenging time, but I'm grateful that she's doing better now, and I can

resume my studies.

What achievements are you most proud of in your career?

I'm proud of the growth we've achieved in the Turkana irrigation schemes, increasing acreage under cultivation and promoting food security in Turkana. These include increasing the acreage under irrigation in Lokubae Irrigation Scheme from 1,260 acres to 2,560, Morulem scheme from 780 acres to 1,680, and Elelea scheme from 400 acres to 1,300. Additionally, I've mobilised farmers and work together to improve agriculture and livelihoods in the region.

Lastly, what advice do you have for the youth and what guiding principles have helped you navigate your journey?

My advice to the youth is for them to be patient and persistent in pursuing their dreams. Throughout my journey, I've learned the importance of faith, hope and perseverance. No matter the challenges we face, we must remain steadfast in our commitment to making a positive impact in our communities.



Farmers planting Maize in Lokubae Irrigation Scheme, Turkana County



VISION

“Water to every irrigable acre”

MISSION

“Provide and Coordinate Sustainable Development and Management of Irrigation Services in Kenya”

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