

## Solar Powered Irrigation Schemes turn Kalungu district into food basket



A group of youths ploughing their garden to utilise water from Busoga small scale irrigation scheme located in Kalungu district

esidents of Kalungu district in Central Uganda are enjoying bumper harvests after vacating wetlands to focus on using the catchments as sources of water for irrigation.

Farmers had occupied Nabafuzi wetland in Busoga-Kyamulibwa parish and Lutente wetland in Lukaya Town Council to grow crops to feed their families.

Whereas it was good for farmers to engage in agriculture, they were practicing it in wrong

places.

In 2018, the Government of Uganda through the Department of Water for Production Regional Centre -Central, under the Ministry of Water and Environment started construction of Busoga solarpowered small-scale irrigation scheme in Kalungu district.

Four years later (2022), the Ministry constructed Lutente solar-powered small-scale irrigation scheme.

These interventions would later

help communities to conserve Nabafuzi and Lutente swamps which they are maximumly utilising as sources of water for irrigation.

Kobusingye Florence a resident of Kyamulibwa parish and the secretary for the Water User Committee says that Busonga small scale irrigation scheme provides adequate water for high crop production.

"This is a life-changing project. We have three planting seasons in a year. We grow high value crops such as; maize, beans,

and vegetables and fruit crops such as passion fruits," said Kobusingye.

She adds that ever since women started engaging in productive and sustainable modern agricultural practices, they get income to support their families.

"We harvest produce which we sell to earn money. Part of the money is what we use to take care of our children and husbands. Our children no longer miss school because of fees and scholastic materials," Kobusingye further says that agronomists from Water for Production Regional Centre – Central, Ministry of Water and Environment equip them with the required modern farming skills. As a result, production keeps increasing.

"We harvest a lot of produce compared to the time we were growing crops in the wetlands. This is because the water flow is regulated to ensure plants get the volume they require," says Kobusingye.

According to Kobusingye, planting high value crops has contributed to bumper harvests.

"We produce more food to feed our families and store more for sale. We also sell produce to the local markets in Masaka City and Kampala City," she states.

Manzi Polycarp a resident of Busoga-Kyamulibwa parish says Busoga solar-powered small-scale irrigation scheme has also created jobs for the youth.

"The youth are returning from urban areas such as Masaka and



Manzi Polycarp a passion fruit grower and a resident of Kyamulibwa parish in Kalungu district irrigates passion fruits

Kampala to embrace irrigation. This is after they realised that productive agriculture is more profitable compared to the small jobs they were doing in towns. With this irrigation scheme, the youth grow high yield cash crops (tomatoes, passion fruit, and vegetables)," adds Manzi.

Ssentongo Mike, chairperson Water User Committee, credits the irrigation for alleviating poverty in Kyamulibwa parish, Kalungu district.

"The residents of Busoga Nakaseta A, town and the neigbouring villages rely on this irrigation scheme. We irrigate matooke, coffee, tomatoes, passion fruit and maize. This food chain has created incomes among several households in Kalungu district," says the chairperson Water User Committee.

According to the chairperson, farmers are cooperative due to the good leadership exhibited by the Water User Committee which is composed of 14 members.



Reservoir tanks supply water to the gardens



Water source (Nabafuzi swamp in Busoga village), a pump house, solar panels and gardens supplied with water for irrigation

"The committee relies on bylaws which were agreed upon by all farmers (youth, women and men). We have several women on the committee who play a critical role of mobilising families to engage in irrigation. Women are the pillars in our homes so they are good agents of change," says Ssentongo.

There was an interesting testimony from a large-scale passion fruit grower Emmanuel Kikambi, a beneficiary of Lutente solar-powered irrigation scheme in Lukaya town council.

Kikambi is also the landlord. He signed an agreement with more than 30 farmers to maximise the irrigation scheme that is on 230 acres.

He and the farmers grow highyield crops such as; passion fruits, watermelon, tomatoes, cabbages, maize and cassava. Kikambi appreciates the government for providing the irrigation scheme which has enabled farmers to vacate Lutente wetland and cease all farming activities therein. Sonko Mohammed a farmer and resident of Lukaya town council says Lutente solar powered small irrigation scheme has increased job opportunities.

"We have over 100 labourers in the plantations whom we pay daily," states Sonko.

He decries substandard pesticides on the market. He says good pesticides are imported from Kenya at a high cost.

He requests government to provide farmers with drones for spraying and tractors for ploughing fields, adding that farmers find it hard to use hand spraying and dig using hoes because the scheme is big.

Muwonge Bagada aka Mickdad one of the passion fruit farmers and a resident of Lukaya town council highlights that transport was crippled during the time when Katonga bridge was closed to the heavy trucks.

Kalungu district production officer Paul Kiyemba says the district started the discussions with the Ministry of Water and Environment in 2018 to boost agricultural production.

According to Kiyemba, Kalungu had for long suffered from crop failure due to long droughts.

"After our successful engagements with the Ministry of Water and Environment, they chose Busoga in Kyamulibwa parish due to its availability of vast water resources," reveals Kiyemba.

Kiyemba explains that installations in the scheme were completed and farmers were mobilized to utilise 15 acres for horticulture.

He credits the government for enabling residents of Kyamulibwa parish to produce during off season periods when farmers in other areas are not producing.

He appeals to communities to keep protecting catchment areas so that future generations depend on them for smart agriculture like irrigation farming. Kiyemba says that the district continues to sensitise communities in the watershed areas to protect the environment.





Reservoir tanks supply water to the gardens

An aerial view of passion fruit garden in Lutente small scale irrigation scheme in Lukaya town council, Kalungu district

Sheila Karungi head of sociologists at Water for Production Regional Centre – Central, Ministry of Water and Environment, says Nabafuzi swamp has adequate water for irrigation.

She says the government promotes good use of wetlands by bringing closer to the people water for agriculture.

She explains that out of over 30 farmers in Busoga small scale irrigation scheme, there are various farmer groups engaged in productive use of the wetland through irrigation. 10 farmers grow maize, 12 farmers grow tomatoes and 15 farmers grow coffee.

The Ministry of Water and Environment empowered farmers from both Busoga and Lutente solar-powered irrigation schemes to form water user committees which enforce bylaws to sustain the irrigation schemes.

Both irrigation schemes have various installations such as; a source, pump house, reservoir, and provides gravity water into the schemes.

David Kiwanuka, deputy manager Water for Production Regional Centre - Central, says the National Resistance Movement government prioritises irrigation to household income, food security and commercialisation. "President Yoweri Museveni has continuously tasked us to scale up irrigation to commercialise farming. We, therefore, empower communities to produce during dry seasons because Central region has a high population and there is need to increase food basket to provide food security and commercial service," says Kiwanuka.

According to Kiwanuka, government has constructed more than 30 irrigation schemes in the 29 districts of Central Uganda.

Paddy Kayondo the Kalungu district Resident Commissioner says the people of Kalungu district got the worst experience when Katonga bridge collapsed. "This was as a result of our failure to deal with nature and we paid a price. It became hard to access our district due to the diversions through Mpigi district,"

He appeals to Ugandans to protect catchment areas and use them under the guidance of environment experts.

He reveals that Lukaya town council has a problem of waste disposable, leaving drainage channels blocked.

The RDC thanks government for extending services that uplift the common person out of poverty.