

# Makerere builds solar power irrigation pump

By Agnes Nantambi

Makerere University's College of Agricultural and Environmental Sciences has fabricated a solar-powered pump with capacity to irrigate up to 10 acres.

The pump was designed and built in partnership with the University of Purdue in Indiana, US.

According to the principal investigator, Prof. Noble Banadda, also head of bioprocessing engineering at Makerere, the \$180m (sh645b) project was supported by a US private investor to support small-scale farmers in developing countries.

The pump's irrigation system, which Banadda said will cost a farmer sh6.5m, comprises a solar panel, battery and tubings.

"This system was designed after a computer simulation to know the capacities that would be needed to pump water at a distance of at least 100 metres away from a water source and also be able to pump water above the ground to a distance of eight to 10 metres," he said.

Speaking during the launch of the system at the Office of the Prime Minister, Banadda observed that for a farmer who has 10 acres, such a system would be the best.

He explained that whereas other irrigation systems require the use of diesel and petrol, this system is a special one designed specifically to run on solar power.

"We designed the system for small-scale farmers in Uganda to address the need to distribute water so as to improve crop production in a sustainable manner."



Rugunda and Makerere staff during the launch of the pump yesterday. Photo by Richard

"Using solar-powered pumps could possibly deliver a cheap and reliable solution for small-scale farmers that form the bulk of farmers in the world," he said.

The Prime Minister, Dr Ruhakana Rugunda, while commissioning the system, applauded the scientists, saying that the Government is interested in getting an appropriate system for irrigation to combat the drought that is causing havoc in different parts of the country.

He observed that with the increase in population, climatic challenges and with soils getting more eroded and less fertile, more scientific methods in agriculture together with fertilisation and irrigation are key in addressing food security.

He challenged the scientists

**"I will be happy if the costs come down such that the pumps are affordable to farmers."** Rugunda

to make such pumps readily available to small-scale farmers to overcome the climatic challenges of drought.

"I will be happy if the costs come down such that pumps can be affordable and made available

to farmers," Rugunda said.

He said that the Government will increase support towards the promotion of innovations in Agriculture.

David Nsalasata, the director production and engineering in the Uganda Prisons services and head of the farm section, said that the new system will help in addressing drought challenges.

"With this innovation we are likely to increase production in coffee, grains and cotton which are great foreign exchange earners," he said.

Sunday Emmanuel, the secretary general Uganda National Farmer's Federation applauded Makerere University saying such innovations are great in promoting and increasing production.

## Investigate refugee trafficking, says FIDA

By Cecilia Okoth

The Uganda Association of Women Lawyers (FIDA) has asked the Government to investigate refugees regarding the plight of refugees who are exploited by human traffickers.

In an article *New Vision* published on Monday, FIDA reported that refugees in Uganda were targeted by businessmen for their body organs, driven by the lucrative global organ trade.

Some desperate young girls, according to FIDA, were sold for commercial sex and labour for sh200,000. The perpetrators, some of them Ugandans, reported to have opened human markets in some areas known to be used by refugees coming to Uganda so as to facilitate their trade.

However, David Apollo Kazungu, commissioner for refugees in the Office of the Prime Minister (OPM), refuted the reports saying people who are said to have reported the matter to FIDA are not known to be refugees in Uganda.

### BETWEEN THE LINES:

Details of the trade were revealed after two cases were reported to FIDA by victims aged 18 and 19 years and they are mostly from Burundi and South Sudan.

"The persons who are said to have reported to FIDA are not known to the OPM. FIDA has not bothered to verify whether they are refugees or not," Kazungu said in a statement issued on Wednesday.

Kazungu said refugees in Uganda are people who present themselves to OPM to seek asylum and are accorded recognition.

He said the OPM has taken elaborate steps including awareness creation, community dialogues and sensitisation campaigns to ensure the safety of refugees in the country.

These, Kazungu said, have been carried out in refugee settlements and among the urban refugees in Kampala.

However, FIDA's senior advocacy officer Mer Muduru told *New Vision* that: "We only speak about what we find out. We do not want a confrontation with the State because we are not working against them. However, it is good for them to investigate reports and bring the alleged perpetrators to book."

According to the United Nations High Commissioner for Refugees' annual global trend report, by the end of 2015 Uganda was hosting 512,968 refugees and asylum seekers the highest number in the country's history. The number estimated to have increased to over a million no