

# Special report

GOVT  
PLAN

100 million

Composition. Mr Paul Mafabi, the director of environment in the Environment ministry, says they plan to restore 100 million hectares of currently deforested and degraded land across the country by 2030.

**WARNING.** Experts warn that Uganda could suffer chronic food shortage in the near future if adequate steps are not taken to combat effects of climate change. According to a joint report by the Food and Agriculture Organisation and the Agriculture ministry released in June, at least four million Ugandans are food insecure and even those who have food, don't eat in a balanced manner. The report also says between 70-80 per cent of Ugandan children eat a diet of inadequate diversity and lack nutrient-rich foods.

## How climate change is hurting the country

**Counting the cost.** Hunger, floods, pest and animal diseases and deadly lightning strikes being felt countrywide are testimony that climate change is already depriving many Ugandans of their livelihoods, writes **Paul Tajuba.**

Whenever ominous clouds form, pupils and staff at Road Barrier Primary School in Kasese District develop cold feet. From the skies, they have come to not only expect rains but also destruction. After all, once bitten, twice shy.

In three consecutive years beginning 2013, storms have filled up River Nyamwamba, which in turn has washed away part of the school.

"In 2013, it [River Nyamwamba] washed away our latrine and classroom block. We have not reconstructed the classroom block to date," says Mr Sarapio Boosi Kule, the school director of studies.

"Flooding has remained a problem and has affected our studies. We fear every time it threatens to rain," Mr Kule adds.

No member of the school has been killed by the floods so far, but the same river in 2013 killed six people and displaced about 2,000 people in the district.

Mr Augustine Kole, the district environment officer, says the flooding of the river is caused by degradation of its banks through cultivation, deforestation and settlement, and climate change.

"For years, human activities have taken place in the river valleys," Mr Kole says. "A river is a living resource; it is dynamic and we to work within its system. Experience has shown that whenever there is above normal rains, it floods," he adds.

River Nyamwamba flows from Mt Rwenzori downstream through Kilembe Sub-county.

Erratic rains, long dry spells, floods and high temperatures are some of the effects of climate change that Mr Chebet Maikut, the commissioner in charge of climate change in the Ministry of Water and Environment, says will continue to hit the country.

"We have also witnessed one of

the worst incidences of increased temperatures [in the country]. Kampala recorded one the highest temperature ever [last year], which had never happened before," Mr Maikut says.

Data obtained from the Uganda National Meteorological Authority (UNMA) in 2015 indicated that Kampala recorded one of the hottest temperatures in history; 30 degrees centigrade, from the usual 26 degrees centigrade to.

"We had many incidences of lightning striking many places across the country. As of now, there is a problem of River Semliki changing course and slightly eating into land on the Uganda side. This is as a result of climate change," Mr Maikut adds.

He adds that pests and diseases such as the fall army worm that ravaged crops early this year, loss

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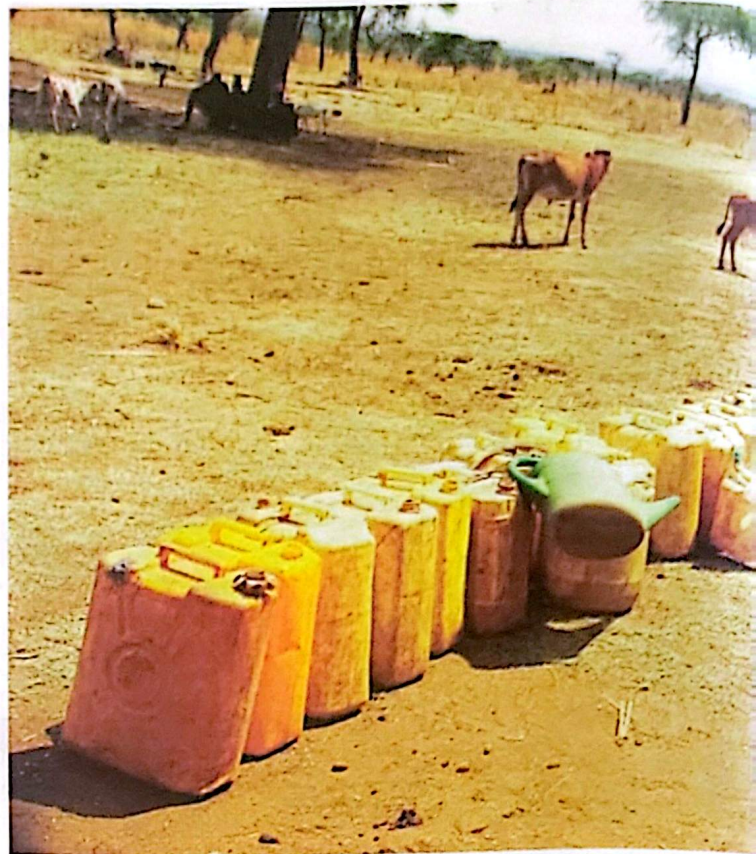
MARY KITUTU, STATE MINISTER FOR ENVIRONMENT

of soil fertility and declining size of Lake Katwe are costs of climate change Uganda is paying.

The commissioner adds that Uganda's water resource has dwindled from 66b cubic litres to 43b cubic litres. When a long dry spell ravaged the country for two years—2015/16, Parliament passed an advisory resolution, urging government to declare a state of emergency in the country in order to effectively tackle the acute hunger that afflicted millions of Ugandans.

Although government mobilised relief aid in and outside the country, President Museveni blamed Ugandans for the dry spell, saying they had encroached on rainfall-influencing features such as wetland, lakes, forests and rivers.

"The danger is that when you are eating relief food, you should chew carefully; you may feel that you are chewing a road, a school or a hospital... just chewing it you



**Dire strait.** A queue of jerrycans at a bore hole in Nakayot, Napak District, recently. PHOTO BY DAVID MAFABI

may smell a road there, a school or a health centre," Mr Museveni said, in reference to the burden that relief money would otherwise be used for other development needs.

A 2014 economic impact assessment report by the Ministry of Water and Environment indicated that Uganda should invest in climate change mitigation and adaptation of about \$406m (about Shs1.3 trillion) in the next five years if the current resources are to support the growing population.

### Warning

If no action is done, the report noted, Uganda would pay a hefty price ranging \$273b (Shs892.4 trillion) to \$437b (Shs1.5 trillion) in the next 40 years as way of addressing impacts of climate change such as floods, high incidences of malaria, food and water shortages among others.

The 18-month study was conducted in Kampala, Bududa, Karamoja, Kamwenge, Kabale and Tororo.

State minister for Environment Mary Kitutu, a former scientist at the National Environment Management Authority (Nema), warns of more catastrophic weather changes if Ugandans do not stop degrading the environment for short time gain.

Quoting to different scientific global weather predictions, Dr Kitutu predicts that more regions of the country, especially the cattle corridor districts, may become drier.

"At this level, I would expect every Ugandan to know that we either protect these systems [wetlands, rivers, forests and lakes] or we die," Dr Kitutu says.

A 2017 Ministry of Water and Environment sector review report indicates that the country now has 9 per cent of forest cover.

Dr Kitutu says natural features such as forests, rivers and lakes influence 40 per cent of the rainfall received in the country, a reason they should be protected jealously.

"We do not have any control over the 60 per cent external influences brought about by the Indian and Pacific oceans," the minister said.

Uganda has a big river catchment area of 1000square kilometres, but much of it has been encroached on.

Dr Kitutu says Mt Elgon National Park, which is 154skm, has been severely degraded despite being a water source to Elgon region and beyond.

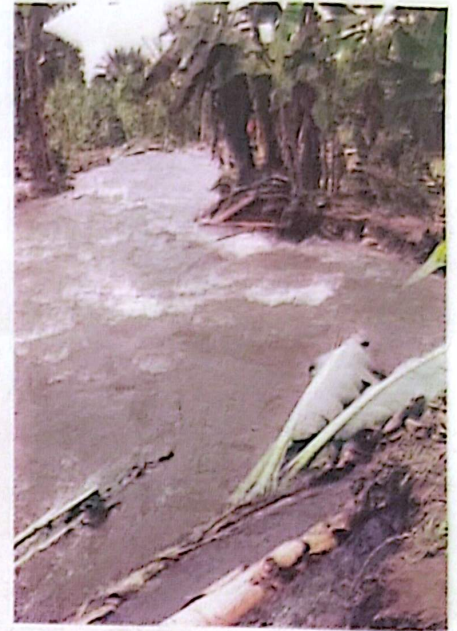
The minister adds that crops such as coffee, a source of livelihood to many households, and hydropower dams that are being constructed will be severely impacted if ecosystems are not protected.

### WHAT GOVT SAYS...

**Mr Vincent Ssempiija, the minister for Agriculture,** acknowledges the effect of climate change on food production. "Uganda has a climate change policy (2015) and the Ministry of Agriculture is mapping out climate change vulnerable communities and sensitising farmers to increase adoption of eco-friendly technologies," he says.



**Appeal.** "How do you quantify the cost of loss of lives like in Bududa and Kasese? You are losing bread winners and that is why we need to put in place mechanisms of mitigating the risks and disasters," **TRACY KAJUMBA, REGIONAL CLIMATE CHANGE ADVISER IRISH AID**



**Havoc.** Floods sweep through a banana plantation in Ndagutu Sub-county, Kasese District, recently. PHOTO BY LONGINO MUSHINDO

**Stranded.** A Red Cross staff and a resident in a flooded banana plantation in Butaleja District recently.



Ms Tracy Kajumba, the regional climate change adviser Irish Aid, says quantifying the cost of climate change is a hard task.

"How do you quantify the cost of loss of lives like in Bududa and Kasese? You are losing bread winners and that is why we need to put in place

and disasters," Ms Kajumba says. Uganda contributes decimal emissions into the atmosphere that results in the warming of the earth with effects such as dry spells, floods and high temperatures but the impact is more felt in the country due to minimal adaptation and mitigation

"We have to increase access to information such as weather information and markets... because without information, it will be hard to adapt. How will you know a short rain season without this information?" she adds.

**Mr Paul Mafabi, the director of**

**GETTING WORSE?**

**Concerns.**

According to the Joint Water and Environment Sector Review Report (2016), deforestation is demonstrated by decline of forest cover from 24 per cent in 1990 to 11 per cent in 2015.

While the focus is sometimes on encroachment on central forest reserves, between 1990 and 2005 natural forest estate outside protected areas reduced by 35 per cent (from 3.46 million hectares in 1990 to 2.3 million hectares in 2005). People are converting hitherto forested land into agricultural land.

says the way forward is planting millions of trees. Trees act as a sink for dangerous gases emitted by factories and transport sector not to reach the ozone layer, thereby preventing it from warming.

The ministry, Mr Mafabi says, has developed strategies to restore millions of trees and wetlands across the country by 2030. He says by then, they will have reforested 100 million hectares of currently deforested and degraded land. To demonstrate their commitment, Mr Mafabi cites the country's target of planting 200 million trees by the year 2020 embodied in the 2012 National Tree Planting Strategy.

**Govt efforts**

With an estimated 10.9 per cent national wetland cover, the ministry has demarcated 1677 kms of critical wetlands and restored at least 476 hectares, according to a recent ministry sector review report.

Also, renewable energy sources such as solar, hydropower and briquettes are being rolled out to minimise deforestation driven by demand for charcoal. Irrigation and drought resistant crop varieties are the other options that government is pursuing.

Development partners such as Rotary Uganda through Rotary Mission Green, a project that seeks to plant 100m trees in five years across the country, civil society organisations and individuals have pledged to plant more trees across the country.

Mr Mafabi adds that government also has a Climate Change Policy (2013) which provides for sustainable management of forestry resources to provide ecosystems goods and services, including mitigating climate change and supporting sustainable development.