



In the run-up to World Water Day, *New Vision* will publish daily features highlighting key issues in the sector and what the public can do to save our environment and water resources. Today **Jacky Achan** looks at how we cannot do without this invaluable resource.

The saying 'water is life' is not far-fetched. Sixty per cent of adult human body is water. Water constitutes up to 73% of our brains and heart. This percentage rises to 85 for the lungs. Even 31% of our bones are water, according to studies by renowned scientist HH Mitchell. For those who use flush toilets, imagine a day without water.

Virtually all plants cannot survive without water. Our lives, therefore, revolve around water. It is a vital ingredient in food preparation; food in our bodies is transported in water form; water flushes out germs from our bodies; it is used in construction sites and to power hydro-electric plants to feed the industries.

As Uganda prepares to mark the World Water Day on March 22, the effects of climate change has made the need to jealously guard against degradation of our environment and water resources more real than ever before.

Analysis by the National Aeronautics and Space Administration (NASA), a US government agency that is responsible for science and technology related to air and space, the earth's global surface temperatures last year were the second-warmest since modern record keeping began in 1880.

The findings continued the planet's long-term warming trend.

Scientists at NASA's Goddard Institute for Space Studies (GISS) in New York found globally averaged temperatures in 2017 were 1.0.90 degrees Celsius warmer than the 1951 to 1980 mean.

Definition

The executive director of Uganda National Meteorological Authority, Festus Luboyera, says variation in weather pattern could be an indicator of climate change.

What used to be the same climate over many years, changes to an irregular variation of the climate as a result of greenhouse gas emissions.

"It may not be the same everywhere. You will find some areas that were getting light rain now receive more rain and the people there have to deal with how to handle water in excess," he says.

Also one may find areas that have sufficient rain experiencing drought as a result of climate change.

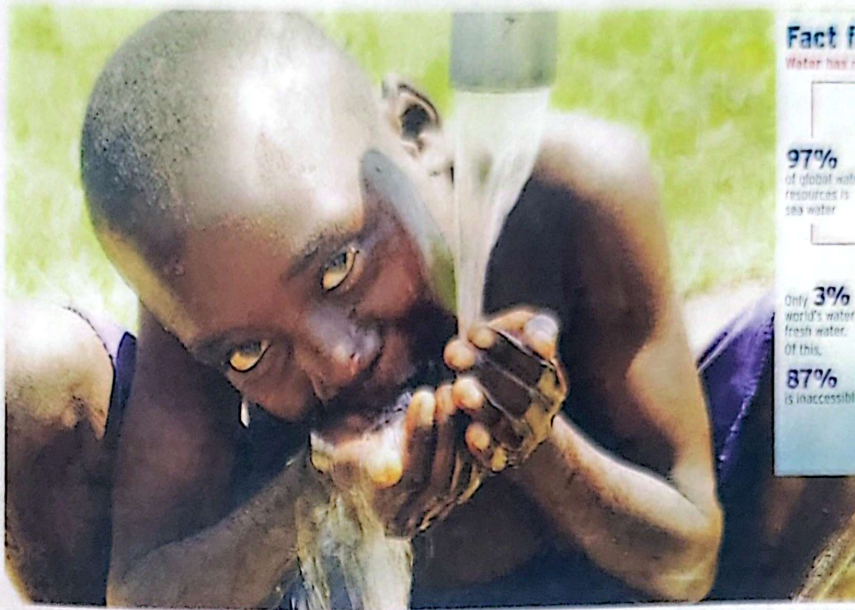
The effect of climate change is real as the world's biggest lakes dry up.

In South America, Lake Poopó, once Bolivia's second-largest lake, vanished in the thin air.

In Africa, Lake Chad shared by

It is universally acknowledged that most water bodies are drying up as the world becomes hotter. This is partly due to human activities. Experts opine that the situation can be reversed with a concerted effort.

Every drop counts: Why you can't take water for granted



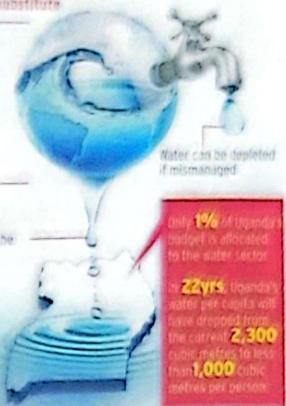
A boy drinking water from a borehole. Water constitutes more than 70% of the human brain and heart

Fact file

Water has no substitute

97% of global water resources is sea water

Only 3% of the world's water is fresh water. Of this, 87% is inaccessible



Climate Change Department, in the Ministry of Water and Environment, says from the early nineties, research has found the quantity of water reduced from 66 million cubic metres to now about 44 or 43 million cubic metres in all our water bodies.

"This is impacting on economic and human livelihood and survival in the country," he says.

The solutions

To save the lakes through sustainable solutions, here in Uganda, Chebet says efforts that include encouraging use of alternative energy sources, tree planting, conservation of wetlands is being undertaken.

He says projects are being undertaken in among other areas of Lake Victoria, Lake Kyoga and Lake Albert.

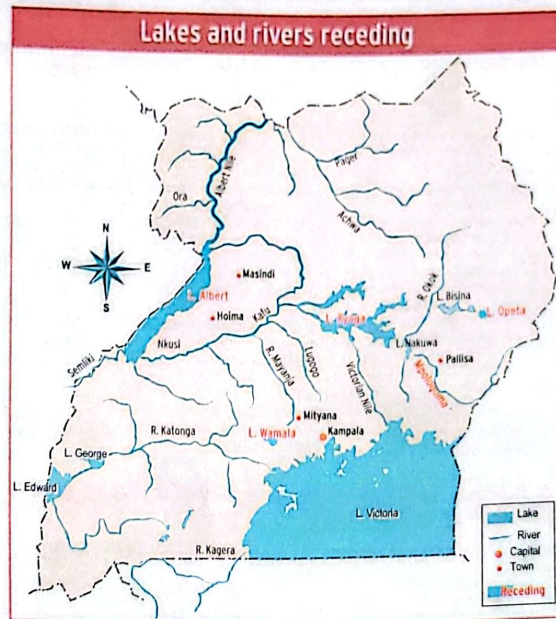
In the case of Lake Chad, on Monday, February 26, experts gathered in Nigeria's capital Abuja to discuss ways to stop it from drying up, after years of environmental decline that has hit livelihoods and security.

A \$6.5m research and conservation programme was agreed and will involve Cameroon, Chad, Niger and Nigeria, whose borders meet on the lake, as well as the Central African Republic.

Chebet states that even though Uganda is not responsible for the pollution that results to climate change, the burden it bears as a result of the phenomenon is huge taking from the example of the declining quantity of water in all its water bodies.

Scientists worry climate change if left unchecked will bring new extremes to life across the globe.

Lakes will disappear, sea-levels will continue to rise, eco-systems will disappear and climate displacement will become more common.



Chad, Cameroon, Niger and Nigeria that once spanned 25,000 square kilometres has in the last half century shrunk by 90%.

Its total surface area now covers a mere 2,500 square kilometres.

Just next door, in neighbouring Kenya, there are fears that Lake Nakuru, one of the most intensely visited and studied water bodies

in Kenya famous for its flamingos, may disappear as a result of climate change and human activity.

In Uganda, Lake Wamala shared by the districts of Gomba, Mityana and Mubende is also vanishing.

The United Nations Environment Programme (UNEP) designated Lake Wamala as one of the climate change hotspots in Africa.

In a 2009 report, UNEP indicated that Lake Wamala's surface area had reduced to 100 square kilometres from 250 square kilometres.

Its mean depth declined to between 1.5 metres and 4.5 metres (between 1984 and 1995) because of persistent dry spells.

Another study by the National Fisheries Resources Research Institute (NaFIRRI) indicated that the changes in Lake Wamala mirror the situation in East African Rift Valley lakes such as Edward and Albert in Uganda.

This is because they receive most of their water from direct rainfall and lose most of it through evaporation.

Lake Kawi, in the same area, is also drying up as wetlands around the lakes are receding as communities encroach on them and in some cases, cultivate up to the shoreline.

But these are not the only lakes that may vanish. In Pallisa district in the east of Uganda, Lake Nyaguwo in Opetta village, Lake Kawi in Apopong sub-county and Lake Lemwa in Kasodo sub-county are all receding.

NaFIRRI studies indicate farmers' activities have interfered with the Namatala-Mpologoma river system that flows into the lakes in Pallisa before joining the Victoria Nile.

But this could also happen to lakes such as Victoria due to human activities such as pollution, deforestation and encroachment on wetlands for farmland and infrastructural development which impacts on the climate.

Chebet Maikut, the commissioner