CLIMATE CHANGE ADAPTATION & MITIGATION
PROTECTING CHILDREN TROUGH SOLAR-POWERED WATER

UGANDA

Human development index: 164/187[35]

Climate change vulnerability index (2016): 33/186[36]

Child population: 20.7 million (55.2 per cent of population)[37]

"I last saw rain many months ago. I am not happy because we are not eating well because all our crops have dried up. There is very little to harvest and it is not enough."

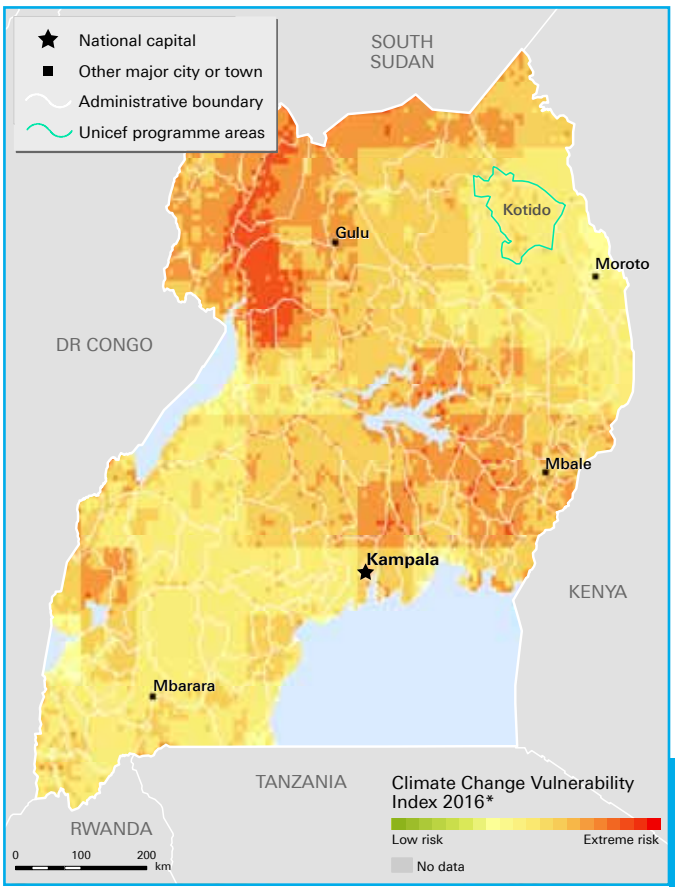
Nakiru, 8, Kanawat Parish, Uganda

CLIMATE CHANGE AND CHILDREN IN UGANDA

Uganda is experiencing significant climate change, including altered weather patterns, decreasing water availability and increased frequency of extreme weather events, such as droughts, floods and landslides.[38] More than half of the country's population are children, and those living in rural communities – where the vast majority of the country's very poorest inhabitants live – along with those living in slums, are particularly vulnerable to these impacts.

Climate-related shocks and stresses are contributing to communities suffering from water scarcity, severe malnutrition and outbreaks of waterborne disease such as hepatitis E, cholera and diarrhoea, a leading cause of death in children under the age of five globally.

Thirty-six per cent of children in Uganda still walk more than one hour every day to fetch water,[39] and – as in so many countries – this burden falls disproportionately on the shoulders of girls. They are in danger of violence and unable to go to school because of this arduous task.



CLIMATE CHANGE VULNERABILITY* UGANDA

UNICEF'S WORK

Karamoja, an agro-pastoralist region in north-east Uganda, is characterised by underdevelopment and marginalisation. In Kanawat, a small community in the region, fewer than one third of the 6,200 residents have access to clean water, a situation that is compounded by climate-related disasters such as drought and flooding. This combination of factors provides a dangerous breeding ground for epidemics. In 2009, hepatitis E ravaged the community, and just one year later, cholera struck more than 400 people, leading to nine deaths.

UNICEF has been working in partnership with the government and private sector partners to protect children's lives in this community by providing clean water, harnessing the power of the Sun. The introduction of solar-powered pumping systems here has had a transformative effect, providing a water system that is resilient to climate shocks and stresses, and is climate neutral, running purely on sustainable energy. Detailed surveys and drilling were undertaken to identify a sustainable water source that could provide adequate volume for the needs of the population, and training was provided to the community to ensure ownership of the project and responsible use of the facilities and water. The system is easy to operate, repair and maintain, and is much more cost-effective than traditional water systems.

OUR PROGRAMME

Location: Kotido District, north east Uganda

Funding: $241,000, from June 2013 to April 2014

Partners: Government of Japan, Government of Uganda (Kotido District Local Government and the Ministry of Water and Environment)

Number of children helped: 3,480

,RESULTS

- 6,200 people, including 3,480 children, have received uninterrupted access to safe water in five villages, including in schools and the local health centre.
- The project has contributed to a significant reduction of waterborne disease such as diarrhoea (46 per cent lower between January and June in 2015 compared to the same period in 2014), hepatitis E, cholera and parasitic infections.[40]
- Beyond Kanawat, UNICEF Uganda has launched more than 15 other solar-powered piped water system projects in the Karamoja Region and West Nile Region in Uganda, including refugee settlement areas like Rwanmanja, providing 70,000 people with access to clean and safe drinking water.
- Training has been provided to each community to improve hygiene and sanitation.
- Training and awareness-raising activities have ensured long-term sustainability of the systems and use of the facilities.

Drought and flooding provide a dangerous breeding ground for epidemics such as hepatitis E and cholera

Lowot Emmanuel, 10, helps to wash dishes. Water is in short supply.

"WE ARE ALWAYS THIRSTY"

Ten-year-old Lowot Emmanuel, from UmUm village in Kanawat Parish, is one of seven children. His days begin at 7am, sweeping the compound and washing up before school. When he returns home, he helps his mother to wash dishes and goes to fetch water. He sometimes helps her to cook dinner too. His favourite meal is rice and beans but when rice is unavailable, he loves sorghum bread.

But Emmanuel is worried for the future. "This year is the worst, the sun is so hot and we are always thirsty," he says. He wonders how they will survive if the situation doesn't change. "I think people, especially the old and children like me, will die, due to the heat and hunger." Last year was better, he says, because they had some rain. "To cope, we drink a lot of water at school and at home. We are fortunate that our school is next to a tap stand from the UNICEF solar water system where we can get clean and safe water any time."

Emmanuel recalls that before the new water facilities were installed, he used to collect water from a borehole, located 4km away from his home. Emmanuel and his friends were afraid of being abducted while they trekked to and from the borehole each day. "We used to hear about men who abduct children going to fetch water and cut their heads off. To overcome this, we used to move in groups and sometimes with adults."

The water from the borehole was hard and salty. "We used to find long queues at the borehole and people would always fight for their turn to get water," he says. If the queue was too long, Emmanuel and others would sometimes collect water from the river and dirty ponds, making them ill. "We have since said goodbye to many diseases," he says.