

FOR  
EVERY  
CHILD IN  
DANGER

-----



CHILDREN AND THE  
CHANGING CLIMATE  
TAKING ACTION TO SAVE LIVES





## FOREWORD

By Simon Reeve, author and broadcaster

**It can be difficult to comprehend the concept of climate change – the scientific terminology, the sheer scale and global nature of the crisis it represents and, perhaps more than anything, the transformational shift to the way we lead our lives that tackling this challenge requires, particularly in developed countries.**

According to the Intergovernmental Panel on Climate Change (IPCC), the impacts of climate change are already being felt, and will inflict ‘severe, widespread and irreversible impacts’<sup>1</sup> in future, unless carbon emissions are cut deeply and rapidly. Yet millions of children around the world – particularly those living in the poorest and most vulnerable communities – don’t have to wait decades for this scenario to materialise. Climate change is already wreaking havoc on their lives. When drought decimates their families’ crops, when flooding sweeps deadly disease into their communities, when cyclones demolish their homes and schools, or when rising sea levels infect the water they drink, it is children that are hit hardest by climate-related disasters, each and every time.

2014 was the hottest year on record, and 2015 is set to surpass that. Reports of climate emergencies continued to pour in, from flash floods in Myanmar, to one of the deadliest heatwaves ever recorded in India, or the strongest hurricane ever to make landfall in Mexico. A strong El Niño – a warming of Pacific Ocean waters that triggers extreme weather – will cause further suffering in many countries.

Climate-related disasters accounted for 87 per cent of all natural disasters in 2014, and these occurred overwhelmingly in developing countries that are least equipped to deal with them. Since 2008, natural hazard events such as typhoons and floods have displaced an average 26.4 million people every year,<sup>2</sup> a number equivalent to more than 40 per cent of the UK’s population. To put it another way, this is 50 people displaced every minute, almost one person every second. As temperatures rise, increasing the severity and frequency of these events, it is unsurprising that this trend is firmly on an upward trajectory.

Children bear the brunt in every sense – climate change undermines their most basic rights, putting their survival and well-being in danger, and threatening their access to food, water and education. By placing severe pressures on communities’ coping mechanisms and exacerbating drivers of insecurity, the impacts of climate change also increase children’s exposure to violence, exploitation and abuse.

However, this year, world leaders have a unique window of opportunity to put in motion the urgently needed policies and actions to address the threat of climate change and to keep children safe. The work has already begun – in September 2015, the international community adopted the Sustainable Development Goals, a global plan of action for people, planet and prosperity, which recognises that the fight against climate change must be at the very core of efforts to eradicate poverty. In December, world leaders will come together in Paris to sign the first ever global agreement to tackle climate change.

This compelling collection of UNICEF case studies offers a call to arms to those leaders, and to us all, illustrating not only the shocking reality of the impacts of climate change on children’s lives and the scale of the challenge they face, but also the kind of child-centred interventions that must be deployed to keep them safe, and to enable them to flourish and develop. From providing flood-proof water supplies in Bangladesh to building cyclone-proof schools in Madagascar, these case studies demonstrate that there is so much that can – and must – be done, to increase communities’ resilience to the impacts of climate change.

**No reader could be left with any doubt that a legally binding commitment by the international community to ambitious action for our climate has never been more critical, nor that such action must respect and protect the rights of the poorest and most marginalised children and communities, whose voices are seldom heard. It is clear that protecting these communities will require significant funding and support. It will not be easy, but it is not too late – through determined global action, we can still prevent children’s lives from being turned upside down by climate change, now and in the future.**

# INTRODUCTION

This collection of case studies offers a snapshot of recent or ongoing initiatives to protect children from the danger of climate change around the world. They highlight the increasing threats that children face as a result of climate change, including emergencies resulting from climate-related disasters, and UNICEF's work to increase communities' resilience and safeguard children's rights in these contexts.

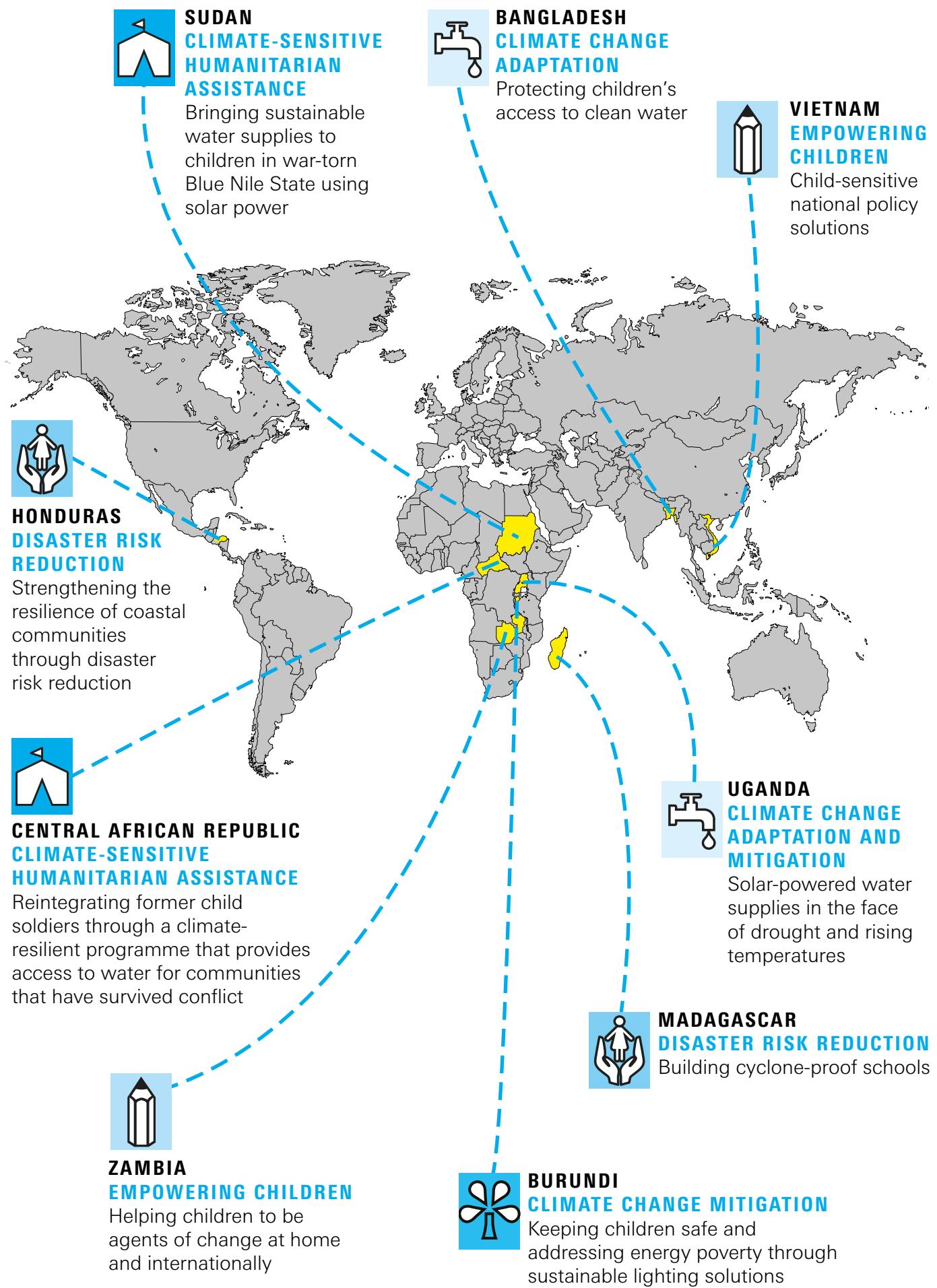
The stories demonstrate the importance of a child-centred approach to climate action, and how applying a climate-sensitive lens to humanitarian and development interventions is essential for reducing children's vulnerability to the impacts of climate change, and underpinning development outcomes more broadly. Incorporating testimony from children in each country, the collection showcases best practice examples of programmes that address climate risk and climate change impacts through humanitarian response, disaster risk reduction, climate change adaptation, and

mitigation measures. In many cases, these interventions represent cost-effective 'no/low regrets'<sup>i</sup> measures that generate both social and economic benefits, in addition to strengthening climate resilience.

While children are the most vulnerable to the impacts of climate change, they are not passive victims. They have a vital role to play in building their own and their communities' resilience to climate shocks and stresses, and as key agents of change in adopting more sustainable low carbon lifestyles. The final two case studies provide examples of the critical role that children can play in advocating for, and effecting, change when they are empowered with the education, skills and means to do so.

<sup>i</sup> A no-regrets policy/activity/strategy is defined as one that would generate net social and/or economic benefits irrespective of whether or not anthropogenic climate change occurs. See the Strategic Framework for WASH Climate Resilient Development, UNICEF and GWP, 2014. The Bangladesh, Central African Republic, Sudan and Uganda case studies represent examples of programmes that are aligned with this recently developed strategic framework.





A young girl with braided hair, wearing a red sleeveless top, is smiling as she washes her hands under a white PVC pipe connected to a clear plastic bottle. Water is flowing from the pipe into a large black plastic bucket. Other children are visible in the background, some wearing colorful skirts and sandals.

## CLIMATE-SENSITIVE HUMANITARIAN ASSISTANCE



# CLIMATE-SENSITIVE HUMANITARIAN ASSISTANCE

## IMPROVING WATER ACCESS FOR CONFLICT SURVIVORS

### CENTRAL AFRICAN REPUBLIC

**Human development index:** 185/187<sup>3</sup>

**Climate change vulnerability index (2016):**  
5/186<sup>4</sup>

**Child population:** 2.14 million  
(46.5 per cent of population)<sup>5</sup>

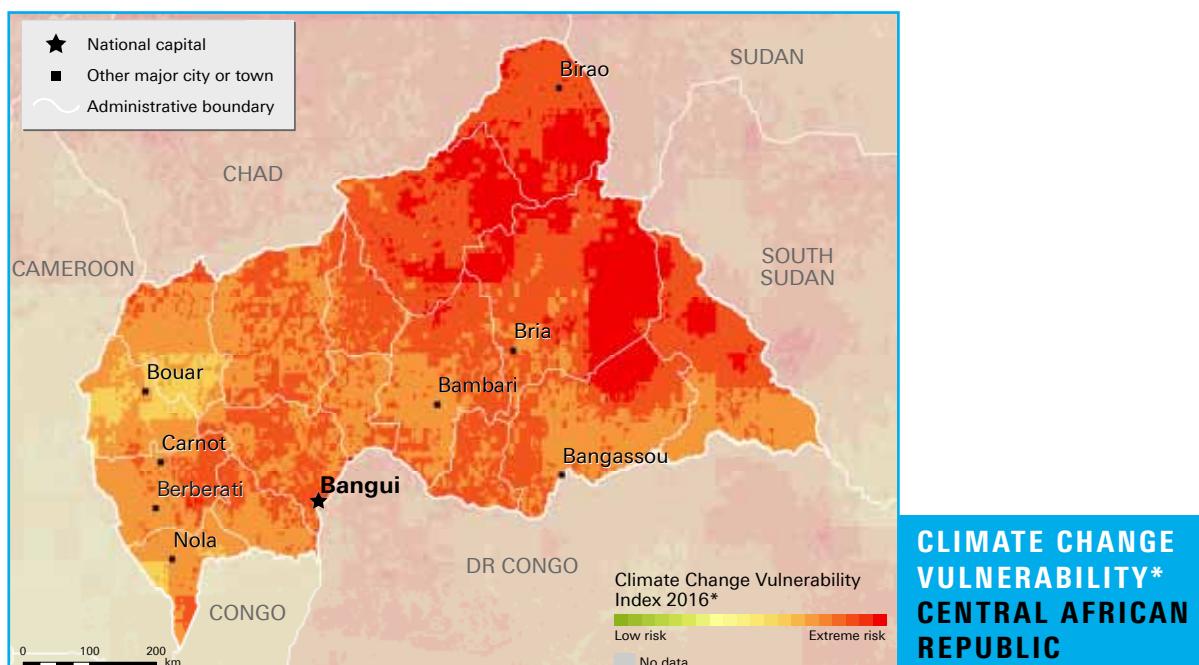
*"The villagers were very cautious at first, when we arrived with bamboo pipes and manual drills. After a few days of working hard, when the water actually came out, the whole neighbourhood was clapping and singing and dancing. It made us feel very proud".*

**A former child soldier, 18,  
Bangui, Central African Republic**

### CLIMATE CHANGE AND CHILDREN IN THE CENTRAL AFRICAN REPUBLIC

The impacts of climate change in the Central African Republic are classed as 'extreme', affecting 75 per cent of the population.<sup>6</sup> Almost half the population is made up of children and the majority live in rural communities that are vulnerable to two key extremes: increasingly severe drought, and torrential rains and floods.<sup>7</sup>

These climate hazards compound and exacerbate the extreme dangers already facing children in the country, where a protracted armed conflict still rages. Widespread violence across the country and large scale human rights abuses have led to the displacement of 850,000 people. UNICEF estimates that up to 10,000 children have been recruited into armed groups. Many more have been separated from family, maimed, raped, abducted and killed.<sup>8</sup> Communities already torn apart by conflict and instability have little capacity to respond to extreme climate-related impacts that further undermine their safety and well-being, and can even add fuel to the fire of conflict, as competition over scant and dwindling supplies of water and food sparks additional tensions.



# CLIMATE-SENSITIVE HUMANITARIAN ASSISTANCE

## UNICEF'S WORK

Almost a third of the population in the Central African Republic does not have access to clean water<sup>9</sup>, a situation exacerbated by increasing dry spells and intensifying droughts, as well as damage and destruction as a result of the ongoing conflict. UNICEF is implementing an innovative climate-sensitive approach to providing access to clean water for internally displaced people. While the country traditionally relies on diesel-fuelled mechanical drilling to access deep underground supplies of water, UNICEF is rolling out a manual drilling programme as a more sustainable alternative. This provides multiple social, economic and environmental benefits: meeting the urgent humanitarian needs of highly vulnerable communities, while also building their capacity to adapt to climate change, and reducing environmental impacts and costs.

One of the most innovative aspects of this approach is its impact on child protection. By providing training to demobilised child soldiers and street children, the intervention aids their reintegration into society, providing them with new community-based livelihoods, and protecting them from further violence, exploitation or abuse.

Communities are informed about the efficient use of water, and local water committees are established to manage the supply of water and the responsible use of water points. These committees can further foster social cohesion, reducing the potential for conflict between the host community and internally displaced people.

## OUR PROGRAMME

**Location:** Bangui, Central African Republic

**Funding:** US\$ 1,000,000 over two years

**Partners:** Funded by the Netherlands Government, implemented by UNICEF in collaboration with CAR's National Water Authority, and partners from Laos

**Number of children helped:** 2,000 children so far, expected to be 40,000 at the end of the programme

## RESULTS

- 5,000 internally displaced people, including 2,000 children, have been provided with access to safe water since the programme started.
- Ten water points have been constructed and the creation of an additional 30 new water points is underway. Work is planned to significantly expand this project to provide clean water for more than 100,000 people, including 40,000 children.
- To date, 50 young men and women, including former child soldiers, have been trained in manual drilling, providing them with new work in their communities.
- Reduced levels of water stress on deep groundwater reserves in the area, which are slower to recharge and highly vulnerable to the impacts of climate change.

MECHANISED DRILLING		MANUAL DRILLING	
✗	Costs around \$20,000 per borehole	✓	Costs around \$3,000 per borehole
✗	Uses 1,000 litres of fuel per borehole	✓	Requires no fuel, producing no emissions
✗	Requires transportation of large equipment, virtually impossible during the rainy season	✓	Materials can be sourced locally from recycled materials, contributing to waste reduction and allowing year-round activity
✗	New road construction for the transportation of large equipment contributes to deforestation and destruction of vegetation	✓	Can be carried out locally, requiring less space at the site of construction and reducing impacts on flora and fauna



Young people trained in manual well drilling put the final touches to a new well in Bangui, Central African Republic

## "I WILL BRING CLEAN WATER TO THE COMMUNITY"

Like many other children, 'Bad Boy', 18, became involved in the conflict in Central African Republic as a result of a vicious cycle of violence and reprisals. Many of his family members had been killed by Seleka rebels. 'Bad Boy' does not want to talk about those months of fear and hatred.

Now life has taken a positive turn. For weeks, he has been learning how to manually drill wells from technicians that travelled from a country he had never heard of before: Laos.

"I know I have done bad things in the past, having a weapon made me behave badly..." says 'Bad Boy'. "But now I am going to make a living with a regular job, and I am so happy it is a very rewarding one: I will bring clean water to the community." Specialists from Laos have come to share their experience and provide training in this technique that has proved successful in Laos for decades.

Communication was complicated, he explains: a Laotian interpreter would translate from Lao to English, and then a second interpreter would translate this to Sango, the local language. He says that most of the time they would just communicate through the universal language of smiles and gestures. 'Bad Boy' learned important new technical skills that will help him provide access to a precious commodity, and to dramatically reduce the risk of waterborne illness for families in his village.

And he also learned that people from outside his community could be kind to him and wish him well. "I would walk anywhere with them, outside of working hours," he says. "I wanted them to be safe."

Now the teenager feels that he has a real future ahead of him. "I pray a lot," he says. "And God sent me this job."



# CLIMATE-SENSITIVE HUMANITARIAN ASSISTANCE

## SUSTAINABLE WATER SUPPLIES FOR WAR-TORN COMMUNITIES

### SUDAN

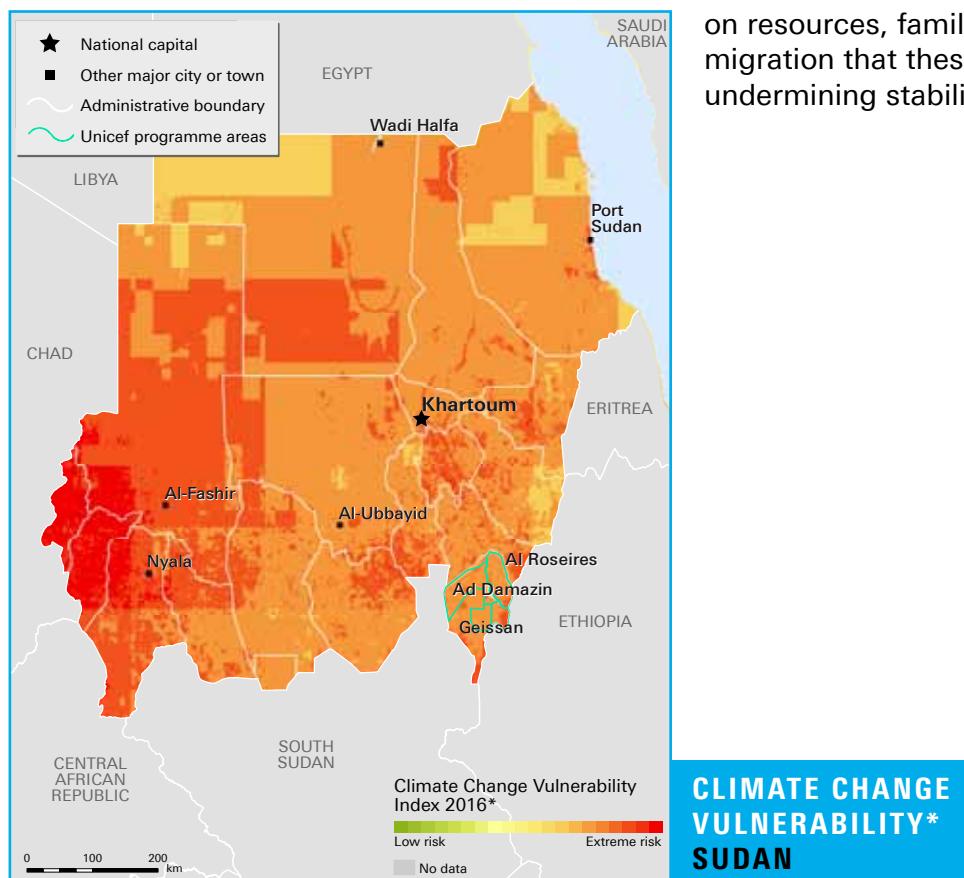
**Human development index:** 166/187<sup>10</sup>

**Climate change vulnerability index (2016):**  
8/186<sup>11</sup>

**Child population:** 18.1 million  
(47.8 per cent of population)<sup>12</sup>

*"When the station was constructed, I was at home and heard people shouting happily: *The water is here!* I took my jerry can and ran after them. I got there so quickly out of excitement and soon found myself in front of this tap. I turned it on and water gushed out, white and pure."*

**Mariam Omar Eisa, 15, Amara Shazli village, Blue Nile State**



### CLIMATE CHANGE AND CHILDREN IN SUDAN

Throughout Sudan, from deserts in the north to forests in the south, thousands of children living in villages are suffering as a result of longer dry spells, erratic rainfall patterns, and the most serious natural disaster facing the population: drought. Climate change is intensifying all of these threats. Increasingly frequent extreme temperatures have left devastation in their wake. These climate-related emergencies are also compounding – and exacerbating – the acute dangers, unspeakable violence and misery that millions of children in Sudan face as a result of the protracted conflicts that have engulfed the country for more than a decade.

Coupled with chronic underdevelopment, the outlook for Sudanese children is bleak. In 2015, 4.2 million children are expected to be affected by climate and conflict-related emergencies, contributing to one of the worst crises for children in the world today.<sup>13</sup> There can be little doubt that drought and widespread desertification – and the increasing pressures on resources, family livelihoods and large-scale migration that these bring – have contributed to undermining stability and security in Sudan.

# CLIMATE-SENSITIVE HUMANITARIAN ASSISTANCE

## UNICEF'S WORK

Blue Nile State is in south east Sudan, bordering Ethiopia to the east and South Sudan to the west. It is one of the areas most afflicted by conflict and endemic poverty, and it is also highly vulnerable to climate-related shocks and stress. For many communities in Blue Nile State – including more than 500,000 children – meeting their most basic needs is a daily struggle.

UNICEF has introduced a climate-sensitive solution to provide vulnerable communities here with life-saving access to water – powered by abundant energy from the sun. Water from the solar-powered pumps costs communities up to a third less than the alternative diesel systems, while reducing greenhouse gas emissions. By increasing the number of pumps available, UNICEF is also helping to reduce the dangers that women and girls face from sexual violence, when they have to walk long distances to find water, and decreasing the risk of tensions between community members, internally displaced people and refugees in Blue Nile.

In the face of climate change, these solar-powered facilities are also providing a sustainable source of water for livestock and even crops during the intense dry season, supporting livelihoods and providing communities with opportunities to grow food. While the priority remains providing essential access to water for these people, sensitising communities on responsible water management is vital for assuring the long-term sustainability of these groundwater resources. For that reason, local members of the water committee, set up to oversee the operation and maintenance of the system, are provided with training on proper water use and management. This model is being successfully replicated in neighbouring South Kordofan State and demonstrates how a climate-sensitive approach to humanitarian interventions can reap multiple benefits.

---

**A climate-sensitive approach  
to humanitarian interventions  
can reap multiple benefits**

---

## OUR PROGRAMME

**Location:** 27 communities in three localities (Damazine, Roseries, Geissan) of Blue Nile State, Sudan

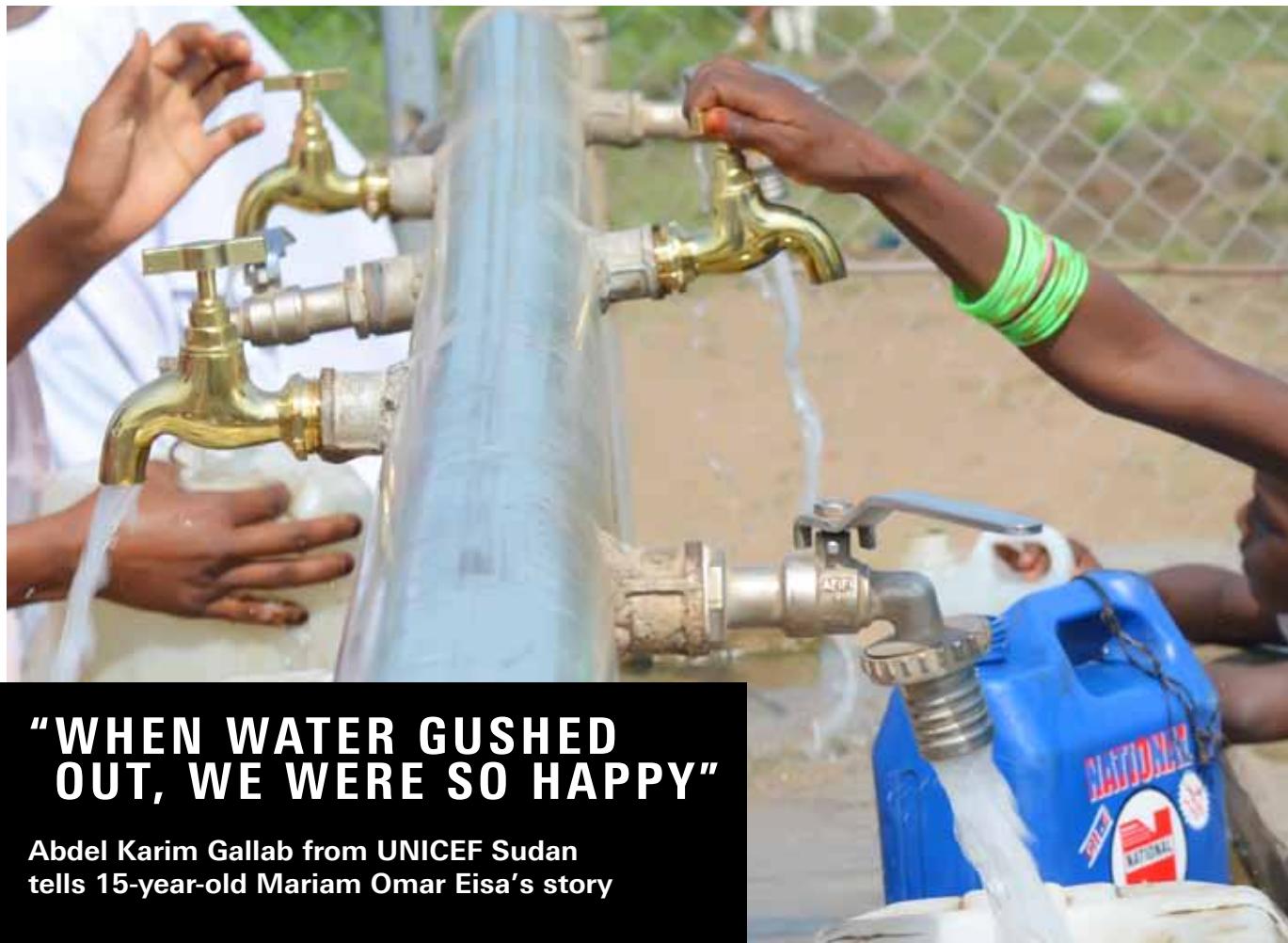
**Funding amount:**  
US\$2,322,522 from 2010 to 2013

**Partners:** Government of the Netherlands, Blue Nile State Rural Water Supply Department, implemented through private sector partners

**Number of children helped:** 141,300

## RESULTS

- 54,000 people, including 7,300 school children, from 27 communities were provided with increased access to water through solar powered water stations in 2013, reducing greenhouse gas emissions and saving communities money.
- Overall, water access has increased by 21 per cent as a further 235,500 people, including 141,300 children, from 62 communities have been provided with access to water supplies in Blue Nile State.
- A 32 per cent reduction in time spent collecting drinking water by women and girls (aged 15 and over) in Blue Nile State between 2010 and 2014.<sup>14</sup>
- New stations have been constructed in South Kordofan State, providing water to 10,000 South Sudanese refugees and host communities.



## "WHEN WATER GUSHED OUT, WE WERE SO HAPPY"

**Abdel Karim Gallab from UNICEF Sudan tells 15-year-old Mariam Omar Eisa's story**

We travelled for 80km on the worst road we had ever seen. Torrential rains and flooding had made 'Amara Shazli, a remote village in the rural Roseiris Locality of Blue Nile State, almost inaccessible. The rainy season has always been hard on the roads, but now these rains are more erratic, and when they come, they are more intense – they damage crops and the floods bring dirty and dangerous water into people's homes.

As we finally rolled – or slid – into the village, we saw the large UNICEF water tank, elevated above the ground. Children emerged from houses carrying containers and walking towards the taps. We waited until they approached and saw one of the girls smiling radiantly. Her name was Mariam Omar Eisa.

"How did you get water before the construction of this station?" we asked her. She looked down, as if recollecting painful memories. "Before the water station, I used to go to the Nile, a two and a half hour walk from here. We had to cross thorny forests and hills to go to the eastern Blue Nile bank. It is one of the most dangerous river banks because the edges are often collapsing. We thought of it as

a monster lurking to harm us at any moment. I saw many children drowning in front of my eyes in that spot."

She was silent and absent minded for a while and we imagined how we would feel to see a little girl drowning before our eyes. She explained that fetching water was a task for younger children – families would not allow older girls to go in case they were attacked and raped. "After I had collected water, I would go to school, but I would worry all day about the long journey I would have to make again after school, to fetch water for drinking, cooking and washing. Sometimes I could not concentrate. It was the same for all my friends and that is why most of them abandoned school."

We asked: "how are things now?" She opened the tap and filled the container: "This is how it is now, as you can see!" She remembers when people came to build the well: "That was wonderful. We all came out – children, women and men – we couldn't believe it."



## DISASTER RISK REDUCTION



# DISASTER RISK REDUCTION DISASTER-READY COMMUNITIES

## HONDURAS

**Human development index:** 129/187<sup>15</sup>

**Climate change vulnerability index (2016):**  
32/186<sup>16</sup>

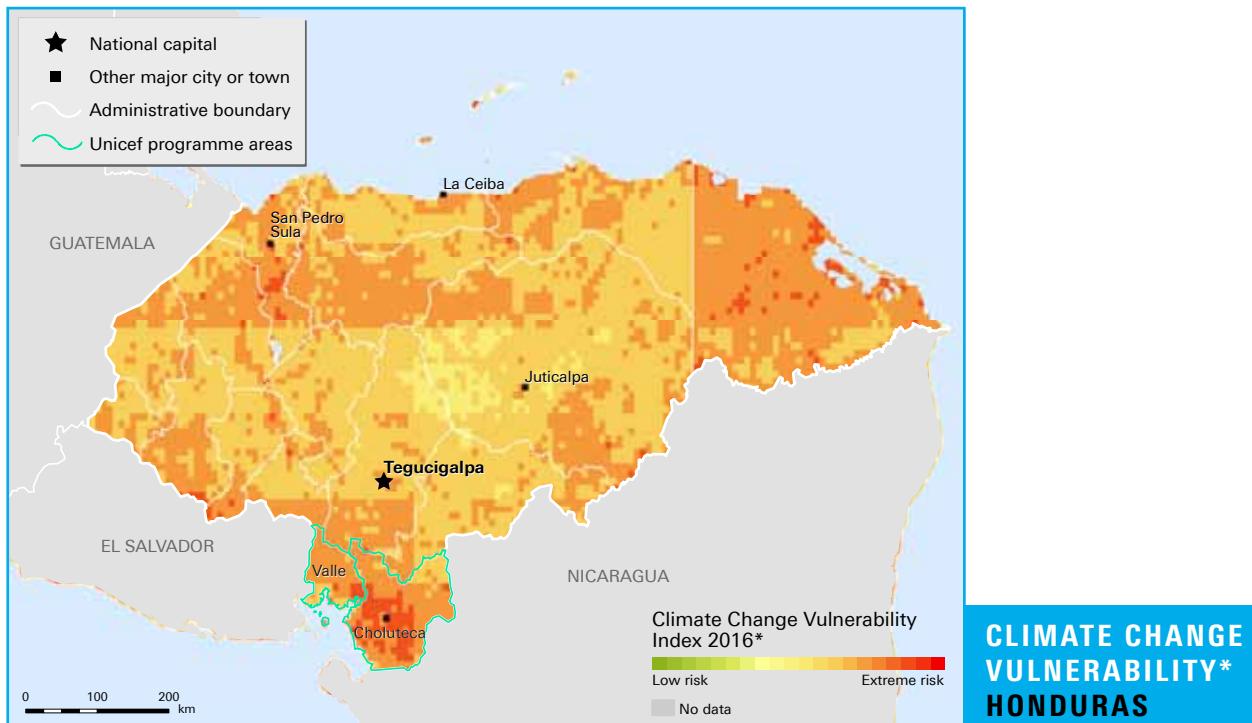
**Child population:** 3.39 million  
(41.9 per cent of population)<sup>17</sup>

*"In 2011 a tidal wave completely destroyed my house. It was a day I still remember. The sea flooded hundreds of metres inland and my family and I only had time to find safety while carrying our basic necessities".*

**Yaki Martins, 14,  
from Cedeño, Honduras**

### CLIMATE CHANGE AND CHILDREN IN HONDURAS

With the Atlantic Ocean to its east and the Pacific to its south west, Honduras is particularly susceptible to a wide range of climate-related disasters, including hurricanes, tropical storms, tidal waves, floods, and torrential rainfall. In a country with one of the highest child poverty rates in Latin America,<sup>18</sup> the impact of these disasters on children and their families is devastating, and frequently fatal. Between 1994 and 2013, Honduras ranked highest on the list of countries most at risk from climate impacts. It endured 69 extreme weather events that claimed an average of 310 climate change-related deaths each year.<sup>19</sup> Some communities are yet to recover fully from the deadly consequences of Hurricane Mitch in 1998, which killed 5,000 people. Thousands more were declared missing. Faced with lethal landslides, collapsing homes, destitution, disease and hunger, children pay a particularly high price in these emergencies. In one of the most violent nations in the world, separation from parents in the wake of extreme weather – through mass-displacement, or death – can have disastrous consequences, leaving children increasingly vulnerable to violence, exploitation and abuse.



# DISASTER RISK REDUCTION

## UNICEF'S WORK

In collaboration with NASMAR, a local association of municipalities established to raise the standard of living in particularly vulnerable communities, UNICEF is strengthening the resilience of children and their families in coastal communities in the south of the country, where the impacts of flooding, tidal waves and extreme weather are particularly acute.

Schoolchildren and their families are being equipped with greater knowledge of climate change and how to stay safe during climate-related disasters. Training has enabled children to assess and monitor disaster risk and vulnerable 'hotspots', and to identify safe evacuation routes and emergency shelter sites, so that they know where to go and what to do when extreme weather strikes. This reduces the risk of harm and separation from their families. At the same time, local staff from NASMAR and municipal authorities have received risk management training to provide a greater understanding of the area's vulnerabilities, building their capacity to create risk-informed mitigation and preparedness plans.

## OUR PROGRAMME

**Location:** Six municipalities, Valle and Choluteca Departments, southern Honduras

**Funding:** US\$162,051 from August 2013 to May 2014

**Partners:** Government of Belgium, NASMAR

**Number of children helped:** 18,858

## RESULTS

- 8,138 families, including 18,858 children from 43 of the most vulnerable poor rural communities, participated in disaster preparedness activities to reduce their vulnerability.
- Emergency school committees were established and trained to develop school safety plans, and to carry out drills along identified evacuation routes.
- The programme is estimated to have led to wider benefits for 46,690 people through training, sensitisation and/or participation in disaster preparedness activities.

© UNICEF/Honduras15/Atienzar  
*Debris litters the beach in Cedeño, on the Gulf of Fonseca, southern Honduras, after a tidal wave.*



## "WE HAVE LOST THE FEAR OF TIDAL WAVES"

Pupils at the Centre for Basic Education in Cedeño learn what to do when there is a tidal wave



Yaki Martins, 14, is from Cedeño, on the Gulf of Fonseca in southern Honduras. Here, 6,000 inhabitants live by the seashore and depend on the sea for their livelihoods. Tears appear in her eyes as Yaki tells the story of the tidal wave that demolished her home four years ago, and the danger she and her family faced as they scrambled to find safety from the water. Despite her tears, a smile shines through when she gazes toward the sea and talks about her dreams: "I want to become a teacher so I can teach other children and help my family and community."

Junior Espinal, 13, is a pupil at the Center for Basic Education in Cedeño. The 570 students enrolled there have received UNICEF-

supported training to respond to risks and prepare for storms. "On days when the sea kicks up, the waves hit the walls of the school, but now we all know the evacuation routes we must follow and where we need to go." Children are the most affected by this kind of weather since they must miss class in order to stay safe.

Just like Yaki, Junior lost his house in one of the recent storms. But he feels that things have changed now as a result of his participation in the community project. "Before, on very windy days we suffered from the time we woke up, but the drills and trainings have managed to help us lose the fear of tidal waves," he says.



# DISASTER RISK REDUCTION CYCLONE-PROOF SCHOOLS

## MADAGASCAR

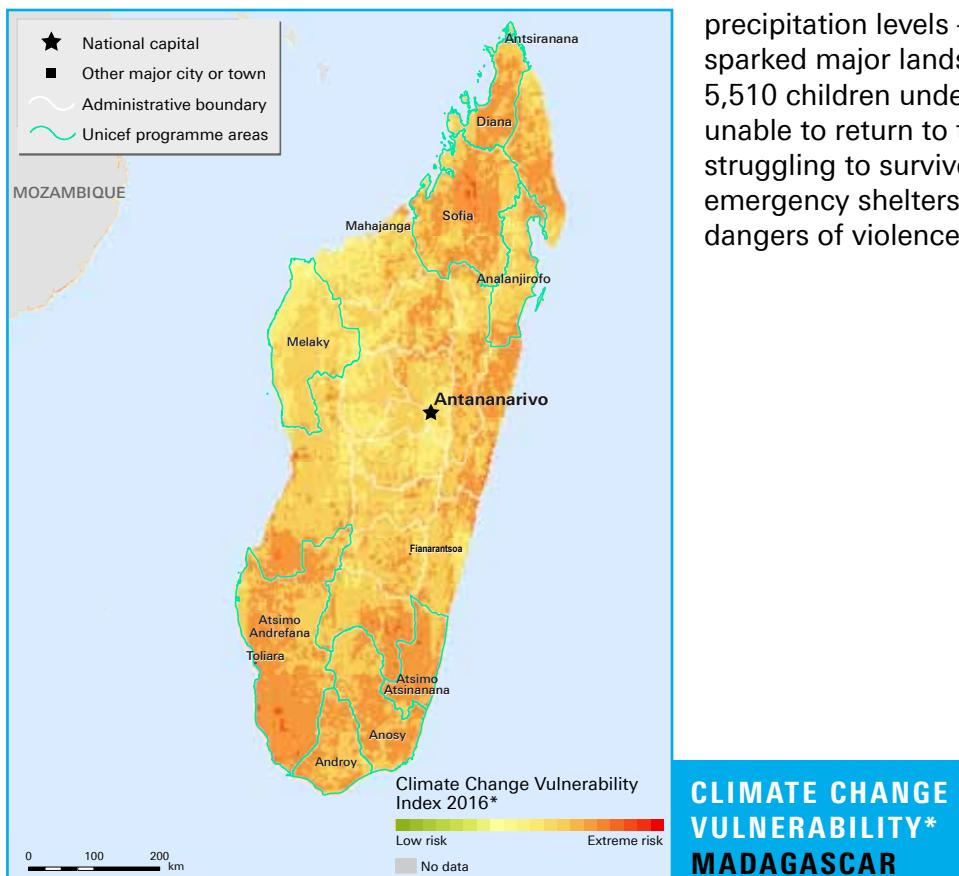
**Human development index:** 155/187<sup>20</sup>

**Climate change vulnerability index (2016):**  
40/186<sup>21</sup>

**Child population:** 11.3 million  
(49.3 per cent of population)<sup>22</sup>

*"It is huge! The air is passing through and there is a lot of light. It is so different from our old classroom with small windows and the heat. We now have a beautiful school, with a strong roof and walls and a big blackboard!"*

**Vola, 10, Mahatera village,  
Analajirofo region, Madagascar**



### CLIMATE CHANGE AND CHILDREN IN MADAGASCAR

Children in Madagascar face an uncertain future. In a country emerging from a prolonged political crisis, children bear the brunt of endemic poverty, food insecurity and rising incidence of sexual violence, abuse and exploitation.<sup>23</sup> But Madagascar is also one of the countries most vulnerable to the hazardous impacts of climate change, and this is further undermining children's well-being and safety. Sixteen of the country's 22 regions are at risk of tropical cyclones, extended droughts, variability of rainfall patterns, and serious flooding. These catastrophes are becoming more intense and more frequent as a result of climatic change,<sup>24</sup> leaving little chance for children and their families to pick up the pieces and rebuild their lives before disaster strikes again.

In January 2015, Cyclone Chedza made landfall in Madagascar, accompanied by heavy flooding; 174,000 people were affected, including 20,000 who were displaced. One month later, exceptional rains – almost three times higher than normal precipitation levels – brought more flooding, and sparked major landslides. In the capital alone, 5,510 children under the age of five were still unable to return to their homes two months later, struggling to survive in makeshift or overcrowded emergency shelters, and exposed to the rising dangers of violence and disease.<sup>25</sup>

# DISASTER RISK REDUCTION

## UNICEF'S WORK

For millions of children globally, schools are a safe space to learn and play. But in Madagascar schools have deteriorated significantly since the onset of the political crisis in 2009. In the most cyclone and flood-affected areas, school infrastructure is severely depleted, while UNICEF estimates that an additional 1,200 classrooms are damaged or destroyed each year as a result of extreme weather. One quarter of children do not attend primary school, while seven in 10 children that begin school subsequently drop out.<sup>26</sup>

This situation has led to a dramatic increase in communities taking matters into their own hands, combining their little means to construct schools themselves in the hope of providing children with an education. However, these constructions do not meet adequate safety standards, resulting in further destruction and additional danger to children when cyclones strike.

Since 2008, UNICEF has been building cyclone-proof schools using cinderblocks or pressed bricks, reinforced with metal frames. The new schools also have access to climate and disaster resilient water systems and gender-segregated latrines, essential for preventing disease in emergencies, and providing a healthy and protective learning environment. At the same time, teachers and students are being trained in disaster risk reduction and preparedness, so that they are better equipped to react when disaster hits. The programme is addressing one of the major causes of climate change too: in a country that has lost huge tracts of its natural forests to deforestation, the new classrooms are eco-friendly, employing locally available materials that have a low environmental impact. Finally, communities are provided with training to maintain buildings, ensuring local ownership and sustainability.

## OUR PROGRAMME

**Location:** eight of Madagascar's 22 regions

**Funding:** US\$ 9,295,000 from 2012 to 2014 and \$2,200,000 for 2015

**Partners:** Malagasy Ministry of National Education; African Development Bank; Global Partnership for Education; CBRE

**Number of children helped:** 80,000

## RESULTS

- Construction of 1,600 safe classrooms, benefiting 80,000 children. Schools are able to reopen rapidly following an emergency.
- Installation of safe water and gender-segregated toilets and a ramp for disabled children in these schools, accompanied by training on hygiene, leading to increased attendance and reduced incidence of disease.
- Delivery of training in disaster risk reduction for more than 13,000 schools, to improve students' and teachers' preparedness before, during and after a cyclone or flood.
- Training for education authorities at regional, district and municipality levels in 16 regions that are particularly prone to natural disasters.
- A reduction in emissions and deforestation compared to traditional building techniques. While one standard classroom was previously constructed using 0.5 hectares of forest, the new eco-friendly design uses materials that do not rely on burning wood.

**1,200**

The number of classrooms damaged or destroyed each year in Madagascar as a result of extreme weather

## "WE ALL LOOK FORWARD TO SCHOOL"



Ten-year-old Vola's primary school in Mahatera, north-east Madagascar, has been rebuilt to withstand cyclones



Analanjirofo, a region in the north-east of Madagascar, means "where the clove trees grow", but this region is also famous for something much more sinister – its vulnerability to repeated and destructive cyclones. The children who attend the primary school in Mahatera know all too well about the extreme storms that hit their coast each year.

Ten-year-old Vola, pictured, is just about to complete her final exams at the school. She lives in Mahatera village, together with her family and her mother is a teacher at the school.

Each year, schools like Mahatera, built with local materials, are completely or partially destroyed and require reconstruction. Vola's mother recalls the damage caused by Cyclone

Ivan in 2008. "We could not teach for three weeks straight – the walls and the roof were so severely damaged," she says. "Many homes in our village were also damaged." The community did not have sufficient resources to repair the school itself.

Vola also remembers studying in destroyed classrooms very well. That's why she is so happy to have a new school, rebuilt by UNICEF to be cyclone-proof, where she feels safe, especially now she knows what to do when a cyclone is coming. "Now we all look forward to going to school to learn," she says. "It is huge! The air is passing through and there is a lot of light. It is so different from our old classroom with small windows and the heat."

# CLIMATE CHANGE ADAPTATION





# CLIMATE CHANGE ADAPTATION

## LIFE-SAVING WATER IN THE FACE OF CLIMATE EMERGENCIES

### BANGLADESH

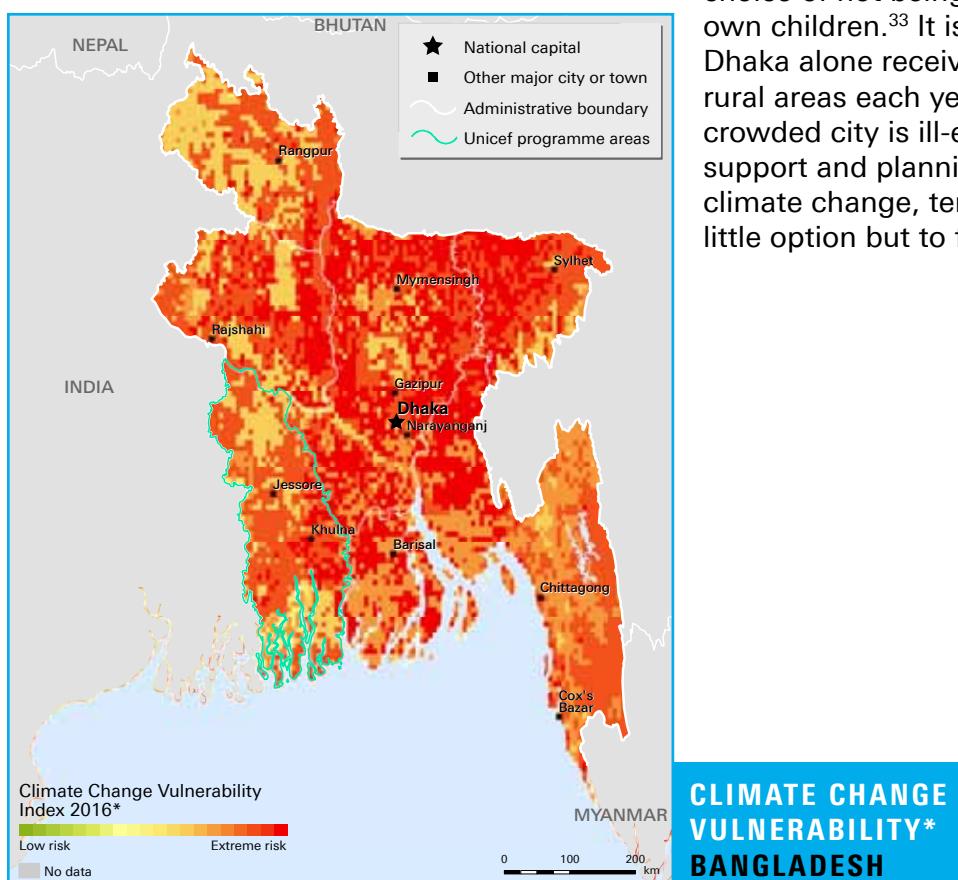
**Human development index:** 142/187<sup>27</sup>

**Climate change vulnerability index (2016):**  
2/186<sup>28</sup>

**Child population:** 56.6 million  
(36.2 per cent of population)<sup>29</sup>

*"Previously I had to walk for more than one hour to collect drinking water and I was always late to school. But this water at my school and near to my house saves my time. Now I can attend school on time."*

**Ismat Ara, 14,  
Satkhira, Bangladesh**



### CLIMATE CHANGE AND CHILDREN IN BANGLADESH

Tropical cyclones, storm surges, rising sea levels, salt water intrusion, drought and extreme temperatures are some of the deadly challenges that are devastating the lives of millions of children and their families in Bangladesh, particularly those living in the country's vast floodplains and low-lying coastal regions. Following disastrous floods in 2007, 1.85 million houses were destroyed or damaged, 1.2 million acres of crops were decimated,<sup>30</sup> and 8 million people were displaced.<sup>31</sup> Ninety per cent of those who died were children, while hundreds of thousands of children were forced to live in makeshift camps with inadequate access to proper shelter or basic amenities, food, water and education.<sup>32</sup>

Climate disasters have been linked to an increase in the number of Bangladeshi girls forced into child marriage or prostitution in cities, often by parents who face the desperate choice of not being able to provide for their own children.<sup>33</sup> It is estimated that the capital Dhaka alone receives 400,000 migrants from rural areas each year, a number that the over-crowded city is ill-equipped to absorb.<sup>34</sup> Without support and planning to manage the impacts of climate change, tens of millions more will have little option but to follow in future years.

# CLIMATE CHANGE ADAPTATION

## UNICEF'S WORK

In Bangladesh, UNICEF is helping some of the most vulnerable communities to adapt to climate change through a climate and disaster resilient water and sanitation programme that addresses acute water scarcity in poverty-stricken coastal districts. Saline intrusion, variable rainfall, and cyclonic storm surges in the region frequently contaminate dwindling freshwater reserves and children suffer on average from three to five cases of diarrhoea each year, resulting in dangerous dehydration and malnutrition. Girls and women frequently have to walk for up to two hours, twice a day, to find safe water, consuming huge amounts of energy and time, and exposing them to the threat of sexual violence and abuse. This burden is also one of the main reasons that girls, especially from the poorest families, drop out of school.

In collaboration with key partners, UNICEF is implementing a Managed Aquifer Recharge (MAR) system to provide communities in these areas with constant access to sustainable and safe drinking supplies. Freshwater is captured during the monsoon season, purified as it flows through a sand filter, and then infiltrated into an underground aquifer where it displaces saline groundwater and creates a fresh underwater 'bubble'. Covered by a layer of clay, the clean water bubble is protected from pollution and disasters, even when the area is hit by flooding or cyclones. The water can be stored to provide year-round water supplies using a hand pump. This low-cost system, constructed from local materials, has limited operational and maintenance requirements, making this a sustainable and scalable solution for rural communities in the coastal plain. UNICEF estimates that through this technology, over the coming years more than 1 million people could be provided with safe drinking water, leading to a significant decrease in waterborne diseases, increased opportunities for education – particularly for girls – and reduced exposure to the devastating dangers of violence, exploitation and abuse.

## UNICEF'S PROGRAMME

**Location:** Coastal districts of Satkhira, Khulna and Bagerhat, South-West Bangladesh

**Funding:** approximately US\$ 2,000,000 from 2009 to present

**Partners:** Government of Bangladesh; Government of the Netherlands; University of Dhaka; Aqua for All; Acacia Water; national partners

**Number of children helped:** 4,721 children so far, expected to rise by 14,000 by the end of 2015

## RESULTS

- 11,000 people, including 4,721 children, have been provided with a low-cost, climate- and disaster- resilient source of safe drinking water in communities, schools and health centres in the highly vulnerable south-western coastal regions of Shatkira, Khulna and Bathiagati.
- An additional 75 systems will be ready for community use by the end of 2015, increasing access for a further 34,700 vulnerable people in coastal areas, including 14,000 children.
- Local non-governmental organisations have been engaged to operate, maintain and monitor the MAR system, providing vital technical skills and capacity building at the local level, as well as wider awareness-building in the communities. The sites have been handed over to community-based 'water use groups', ensuring local control and ownership.

**Girls and women frequently walk for up to two hours, twice a day, to find safe water. It is one of the main reasons that girls drop out of school.**



## "IT HAS SAVED US"

*A child drinks fresh water from a hand pump at a MAR system installed by UNICEF*

In August 2015, floods inundated residents of in the village of Sundormahal in Khulna District, south-east Bangladesh. Around 1,500 households were completely demolished and thousands more were heavily damaged by the surging waters. While some families were evacuated to an emergency cyclone shelter, many others had no choice but to find shelter on the roadside, in makeshift camps. A MAR system, constructed by UNICEF just months earlier, was the only source of safe drinking water for thousands of flood victims.

This simple solution has provided life-saving emergency relief to children and their families. Ismail Hossain Mollah, 11, explains: "We didn't know anything about the process as it's new in this area. But once we understood, we started drinking. Now everyone, from children to the elderly, drinks this water, and no one has had any problems."

Chandana Ray, a woman also affected by the floods, agrees: "This water tastes good, we don't get sick anymore. It has saved us."



# CLIMATE CHANGE ADAPTATION & MITIGATION

## PROTECTING CHILDREN THROUGH SOLAR-POWERED WATER

### UGANDA

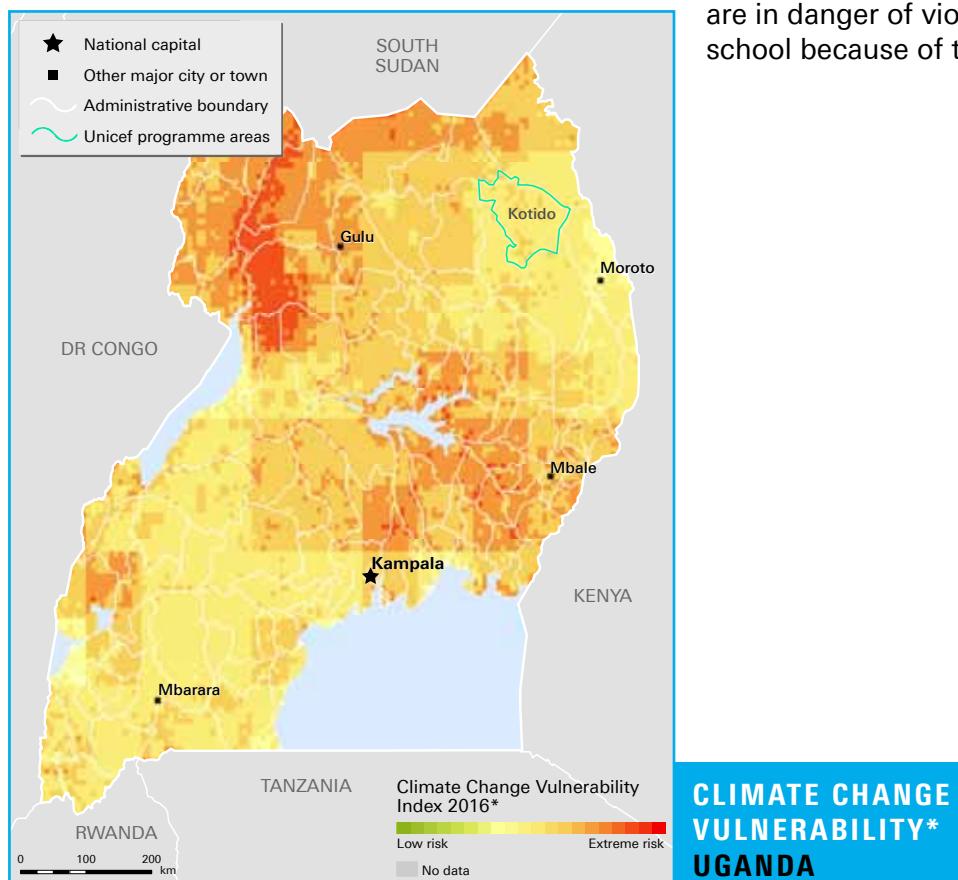
**Human development index:** 164/187<sup>35</sup>

**Climate change vulnerability index (2016):**  
33/186<sup>36</sup>

**Child population:**  
20.7 million (55.2 per cent of population)<sup>37</sup>

*"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.<sup>38</sup> 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,<sup>39</sup> 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 ADAPTATION & MITIGATION

## 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.<sup>40</sup>
- 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"



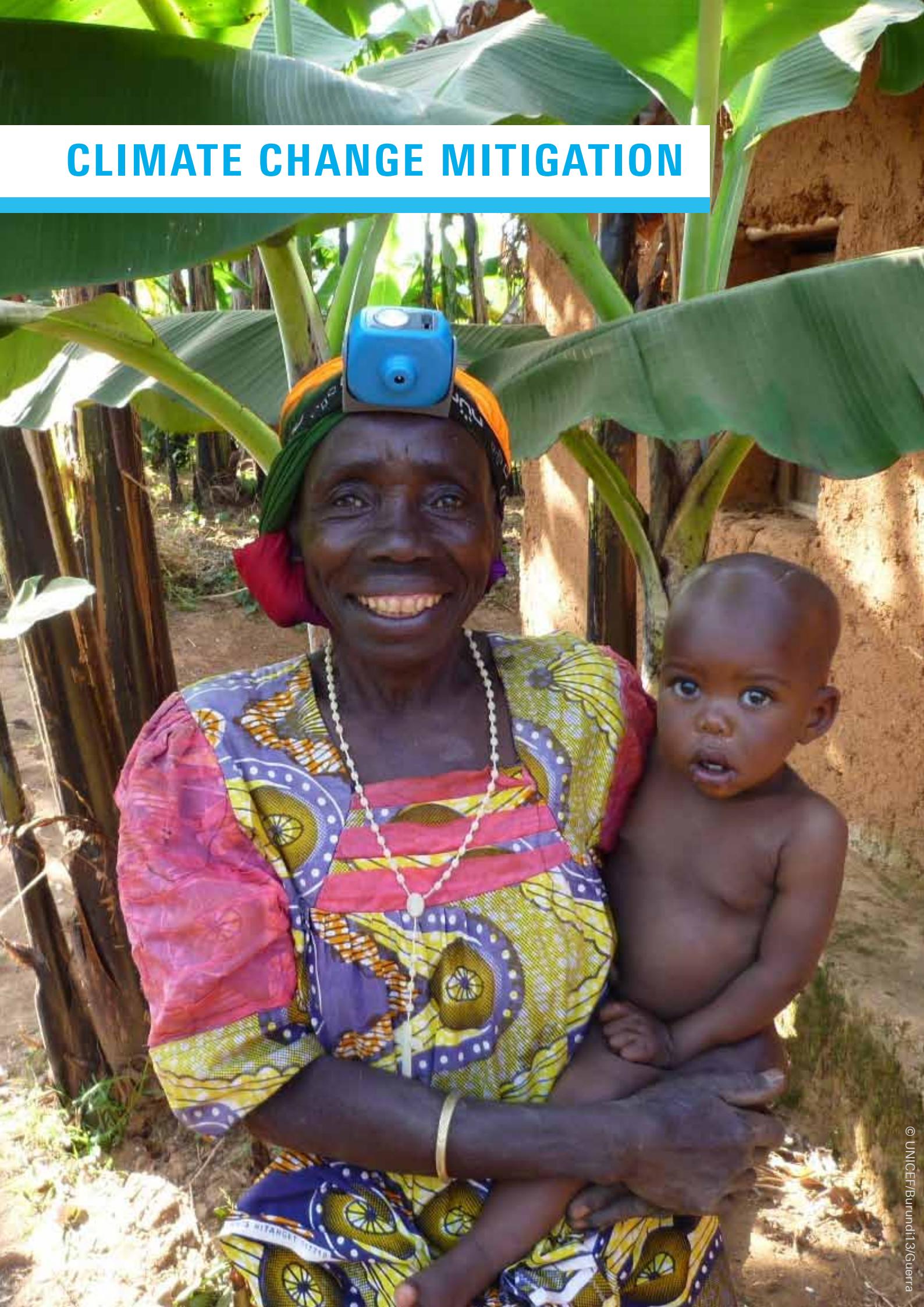
Ten-year-old Lowot Emmanuel, from UmUm village in Kanawat Parish, is one of seven children. His days begin at 7am, sweeping the compound and washing up before school. When he returns home, he helps his mother to wash dishes and goes to fetch water. He sometimes helps her to cook dinner too. His favourite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

# CLIMATE CHANGE MITIGATION





# CLIMATE CHANGE MITIGATION SUSTAINABLE LIGHTING

## BURUNDI

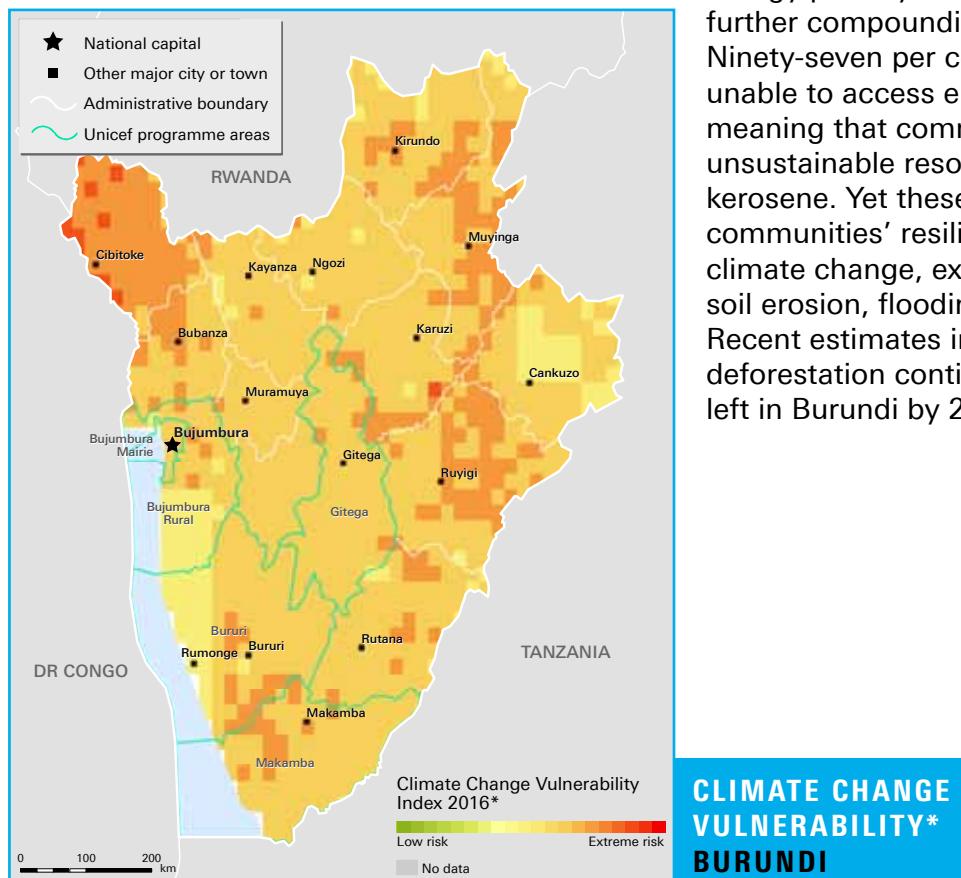
**Human development index:** 180/187<sup>41</sup>

**Climate change vulnerability index (2016):** 54/186<sup>42</sup>

**Child population:** 5.16 million (50.8 per cent of population)<sup>43</sup>

*"Before we would use all types of firewood, including from young trees. It leads to the destruction of trees and that leads to dryness, which impacts our farming."*

**Juliette Manirambona, 35,  
a mother of seven children  
and a farmer, Muzima, Burundi**



## CLIMATE CHANGE AND CHILDREN IN BURUNDI

Communities in Burundi are arguably among the least equipped in the world to respond to the impacts of climate change. The country is one of Africa's most densely populated nations. It is also one of the youngest and poorest – half of the population is under the age of 18, 81.3 per cent of its people live on less than \$1.25 a day, and it ranks first on the Global Hunger Index. Following disputed elections in July 2015, children in Burundi have experienced civil unrest and political turmoil. Yet these children are also highly exposed to the dangers of climate change. They are already witnessing the loss of their families' crops to desertification as wetlands, rivers and lakes dry up – or to the torrential rains that sweep through their communities. As temperatures rise and flooding increases, they also face a proliferating risk of malaria and waterborne disease such as diarrhoea and cholera.<sup>44</sup>

Energy poverty in Burundi is responsible for further compounding the plight of children. Ninety-seven per cent of the population is unable to access electricity from the grid, meaning that communities have to rely on unsustainable resources such as wood and kerosene. Yet these practices further undermine communities' resilience to the impacts of climate change, exacerbating the challenges of soil erosion, flooding and drought in the country. Recent estimates indicate that if current rates of deforestation continue, there will be no forests left in Burundi by 2040.<sup>45</sup>

# CLIMATE CHANGE MITIGATION

## UNICEF'S WORK

UNICEF is providing a climate-sensitive solution to meeting Burundi's energy needs through a programme that helps communities to develop sustainably, while keeping children safe from danger. 'Project Lumière', launched in 2013, is a micro-enterprise rural energy scheme that enables community groups – predominantly women – to purchase a pedal-powered generator and fast-charging LED lights to sell. The low up-front costs of the equipment guarantees access to safe, affordable lighting for even the poorest families. A small fee is charged by the community groups to users wishing to recharge their lamps, creating a constant revenue stream. At least 10 per cent of these profits are reinvested into the community, to strengthen safety networks and keep vulnerable children safe from violence and abuse.

In partnership with a local non-governmental organisation, a national social enterprise has been created to manage, procure and distribute the rechargeable lights, and to oversee the introduction of other affordable micro-energy technologies in future, such as solar power. The lights provide a cleaner, safer and cheaper source of energy for children's homes than traditional kerosene lamps or firewood candles and protect children from indoor pollution, responsible for the death of almost 9,500 Burundian children under the age of five each year.<sup>46</sup> They free up extra income for households, and enable children to study for longer, improving learning outcomes. At night, when villages were previously plunged into darkness, women and children can now identify noises, and use the bathroom more safely.

## OUR PROGRAMME

**Location:** Gitega, Makamba, Bururi, and Bujumbura provinces in Burundi

**Funding:** US\$60,000 from September 2013 to January 2015; US\$297,500 from February 2015 to present (covering the broader electrification strategy)

**Partners:** FVS Amade, CPES (national social enterprise), and Nawe Nuze (local credit and savings associations), and Nuru Energy (supplier)

### Number of children helped:

Approximately 26,000

## RESULTS

- 54 community groups comprising 16,000 households and 26,000 children have been provided with access to safe, clean, and affordable energy solutions.
- Reduction in the use of kerosene and firewood candles in homes, decreasing emissions and deforestation rates, as well as indoor air pollution responsible for deadly respiratory diseases.
- An 80 per cent reduction in monthly household expenditure on energy for lighting, contributing to poverty alleviation, even in the poorest and most vulnerable families.
- Improved safety for women and girls at night, enabling them to identify noises and threats and to use the bathroom when it is dark outside.
- An increase in children's quality time for study in the evening, improving learning outcomes and decreasing eye problems as a result of better lighting.
- Longer working hours for families, leading to increased household revenue.

*A child uses an LED lamp to study.*

© UNICEF/Burundi14/Njimbere



## "IT IS EASY NOW TO SEE WHAT IS HAPPENING"

Perched on top of one of Burundi's thousand hills, in a landscape dotted by the occasional coffee bush, lies Muzima, a tiny village with a handful of homes, 12 kilometres away from the nearest town. This is a land of landslides and soil erosion, where farmers venture out on to the steepest slopes to plant staple crops like bananas, and where the scent of eucalyptus perfumes the air. For communities here, energy poverty permeates every aspect of life: children study at night using kerosene lamps, women give birth in the dark by candlelight, and women and girls are afraid to leave their homes after nightfall.

Yet for Diane, a teenager in Muzima, the days of struggling to read her notes from maths class already seem like a distant memory.

"Before I used a kerosene lamp to study," she explains. "There was a lot of smoke – you can see the stains on the ceiling. The smoke would get in my nose and lead to coughing. When I got the new lamp, I no longer had pain in my eyes and felt much better. I study until late, and when I wake up at four in the morning to continue studying, it is easy to find and turn on the lamp again. It is also easy now to go out at night and see what is happening outside."

A young child, likely of Vietnamese descent, is the central figure. They are wearing a traditional conical hat (non la) and a green short-sleeved shirt with a small tear on the right side. A floral headband is wrapped around their head. They are holding a small, light-colored ball in their right hand. The background is a soft-focus outdoor setting with green and brown tones.

**EMPOWERING CHILDREN**



# EMPOWERING CHILDREN CHILD-FOCUSED POLICY CHANGE

## VIETNAM

**Human development index:** 121/187<sup>47</sup>

**Climate change vulnerability index (2016):**  
49/186<sup>48</sup>

**Child population:** 25.08 million  
(27.4 per cent of population)<sup>49</sup>

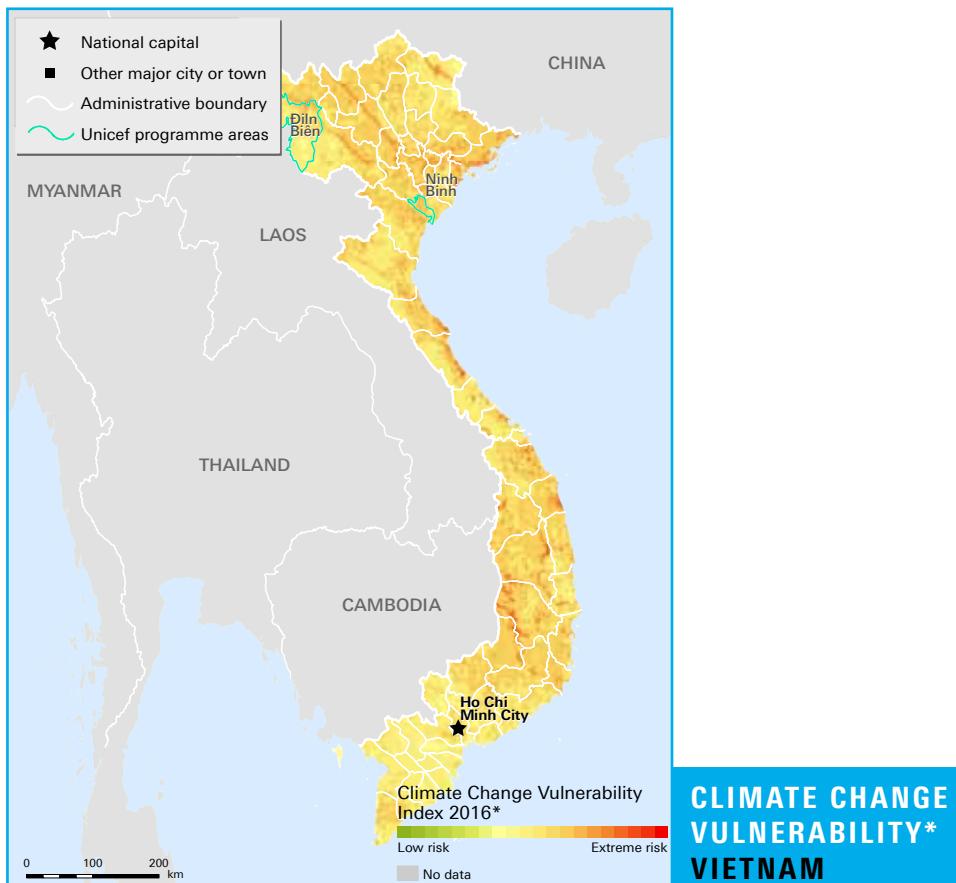
*"My family fell into difficult circumstances after the typhoon and flooding. We lost our source of income. I had to stay at home and not go to school for a year to help my family."*

**Schoolboy, Ninh Thuan, Vietnam**

### CLIMATE CHANGE AND CHILDREN IN VIETNAM

Extreme climate risks such as flash floods, landslides, typhoons and droughts are becoming more common, and more intense, in Vietnam. These impacts, combined with the harmful effects of increasingly erratic rainfall and higher temperatures, are seriously threatening the lives and well-being of children the country. In the past 50 years, the average temperature in the country has risen by approximately 0.5°C and sea levels have risen by around 20cm.<sup>50</sup> In the wake of disasters that destroy their homes and livelihoods, climate-driven migration is increasing, raising the risk of child exploitation and trafficking, particularly for girls.<sup>51</sup>

It is difficult to envisage the devastation that would be wrought under the 2–3°C temperature increase predicted to take place in Vietnam by the end of the century, and how today's children and future generations will cope with this overwhelming burden.



# EMPOWERING CHILDREN

## UNICEF'S WORK

UNICEF is protecting and empowering children in Vietnam in the face of climate change by increasing recognition of their needs among decision makers and boosting their participation in critical national level policy and legal reforms.

Through dedicated focus groups and discussions with children from highly vulnerable provinces, children's experiences and perspectives on the impacts of climate change on their lives were documented, as well as their views on how these dangers could be minimised. Workshops enabled young people to learn new communication skills to strengthen their capacity to capture their experiences, articulate their views and raise their concerns. This work subsequently informed and engaged decision makers on the dangers faced by children, as well as the positive role that children could play in actively contributing to solutions and preparedness in their communities.

The consultation successfully led to the incorporation of a child rights approach in the context of Vietnam's new national Law on Environmental Protection, approved in 2014. This approach clearly demonstrates the value of including children's unique perspective and voice in decision making relating to climate action, and empowering them to take action and identify solutions to protect themselves and their peers.

## OUR PROGRAMME

**Location:** Ho Chi Minh City and provinces of Dien Bien and Ninh Thuan, Vietnam

**Funding:** US\$100,000 in 2014

**Partners:** National govern, civil society

**Number of children helped:** 25 million

## RESULTS

- Nearly 200 children from three selected provinces were consulted on their experience and empowered with new knowledge and skills on climate and disaster risks, including increased capacity to communicate with their peers and others.
- Vietnam's revised Law on Environmental Protection, approved in 2014, now provides for climate change policies and action that respect the best interests of the child and gender equality. This legal framework will benefit the country's 25 million children.
- Policy coherence between Vietnam's environmental commitments, and those ratified under the UN Convention on the Rights of the Child, has been significantly strengthened.
- Local authorities committed to further build the resilience of children against climate change, as an important component in wider strategies to tackle climate change and its impacts.
- Increased recognition among national and sub-national decision makers of the important role of civil society in facilitating consultation with vulnerable groups, such as children.



## "LET'S KEEP OUR PLANET BEAUTIFUL"

By Le Chi Cuong, 12, from Ho Chi Minh City, Vietnam

"One morning, after waking up, I saw a downpour. I started to look around but I did not see my parents. I went downstairs and saw the flood coming to the foot of the stairs. My parents and grandparents were collecting furniture and putting it all into a higher place. I dressed and prepared to go to school.

"My father carried me on his back, he had a tired face. Cockroaches and rats were crawling on the walls, which really scared me. The houses around were also flooded. In the afternoon, my mother told us that many houses were also damaged and people even

could not carry their belongings to higher places. Everyone was sad.

"I realised that rubbish was one of the factors causing floods because it blocked the drainage system and there was stagnant water everywhere. I think people should not just throw rubbish down anywhere, but we should all help to make water flow smoothly in the rainy season.

"Let's protect our environment, let's reduce greenhouse gases and keep our planet beautiful."



# EMPOWERING CHILDREN IN CLIMATE ACTION

## CHILDREN AS AGENTS OF CHANGE

### ZAMBIA

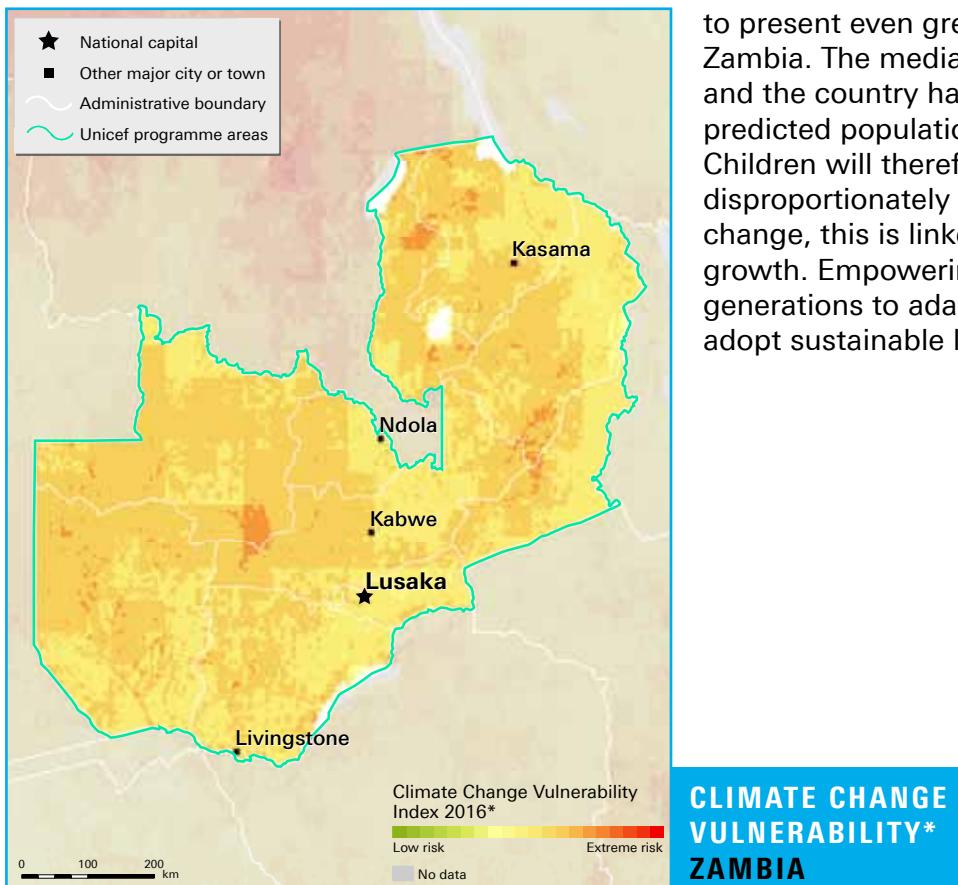
**Human development index:** 141/187<sup>52</sup>

**Climate change vulnerability index (2016):** 64/186<sup>53</sup>

**Child population:** 7.76 million  
(53.3 per cent of population)<sup>54</sup>

*"I visit schools to educate children about the environment and climate change. It is a good feeling to see how I change people's mind just by speaking with them. At home we also have good practices now. We have two containers so that we separate waste. It was my idea and my mother accepted."*

**Namwiinga Malambo, 16,  
a climate ambassador in Mongu**



### CLIMATE CHANGE AND CHILDREN IN ZAMBIA

Zambia is highly prone to droughts, dry spells, flash floods and extreme temperatures. Many of these impacts have increased in intensity and frequency over the past decades, adversely affecting food security, water access and quality and livelihoods. Deforestation and land degradation are compounding these challenges. Climate trends indicate that mean annual temperature has increased by 1.3°C since 1960, while rainfall has decreased by an average of 2.3 per cent per decade.<sup>55</sup> Reduced rainfall and rising temperatures lead to falling crop yields – such as the dramatic 21 per cent decline in crop production reported in 2015.<sup>56</sup> With 70 per cent of the population – and often the poorest – concentrated in rural areas that depend on agriculture for their livelihood, the impacts are disastrous for children and families.

As our climate changes, malnutrition and increasing transmission rates of malaria – the disease already responsible for more deaths of children under the age of five than any other illness in the country<sup>57</sup> – are also likely to present even greater threats to children in Zambia. The median age in Zambia is just 16.7, and the country has the second highest annual predicted population growth in the world.<sup>58</sup> Children will therefore continue to suffer disproportionately from the impacts of climate change, this is linked to the predicted population growth. Empowering these children and future generations to adapt to climate change and adopt sustainable lifestyles is critical.

# EMPOWERING CHILDREN IN CLIMATE ACTION

## UNICEF'S WORK

Since 2010, UNICEF has been equipping young people with knowledge and advocacy skills help them to be leaders on climate change at the community, national and even international levels.

'Unite4Climate' is a child-led advocacy programme that empowers 11-17-year-olds in all 10 of Zambia's provinces to become climate ambassadors. They go on to inspire thousands of children through peer-to-peer outreach and education, media programmes, debates, advocacy efforts, and implementation of low-cost community projects on climate change adaptation and mitigation. From creating a plan to build a floating school in Mongu, where flooding restricts school attendance every year, to hosting radio programmes and theatre performances that address climate change, more than 1,000 ambassadors are putting their training into action and reaching more than 1 million community members through their efforts.

The project clearly demonstrates the valuable role that children and young people can play in finding innovative solutions to issues that affect their daily lives.

**UNICEF has been equipping young people with knowledge and advocacy skills to help them to be leaders on climate change**

## OUR PROGRAMME

**Location:** nationwide

**Funding:** US\$1,850,000 from April 2010 to December 2015

**Partners:** Ministry of Education and the Wildlife and Environmental Conservation Society of Zambia (WECSZ)

**Number of children helped:** 1,325 trained ambassadors that have reached more than 1 million children, youth and community members

## RESULTS

- 1,325 climate ambassadors, aged 11 to 17, have been provided with education and training on climate change, as well as new advocacy and communication skills.
- Through a system of peer-to-peer outreach and activities, climate ambassadors have reached more than 1 million people in the country, providing information on climate change, mitigation and adaptation actions, and helping to realise environmental sustainability goals set out in the Zambia government's National Adaptation Plan of Action (NAPA).
- The voices of Zambian children have been raised to the national level, through engagement with Government officials, Members of Parliament, and traditional leaders. Through district consultations, 350 climate ambassadors have provided inputs to the Zambia government's country position paper for the 21st Conference of Parties (COP 21) meeting in Paris, France in December 2015.
- Climate change adaptation and mitigation projects have led to planting of 30,000 trees in schools and communities in 2015 alone.
- Construction of a floating school in an area susceptible to flooding, as a direct result of child-led advocacy, leading to a 44 per cent increase in enrolment.
- Ambassadors have influenced small-holder farmers to engage in adaptation activities such as conservation agriculture.



**"I WANT TO HELP  
PEOPLE WHO  
FACE FLOODS"**

© UNICEF/Zambia15/Maseko

"As a result of being a climate ambassador I want to study Civil Engineering so that I can find eco-friendly solutions and ways of adapting to the effects of climate change," says 18-year-old Thompson Manda, pictured. "I want to help people who face problems like floods to have good houses and bridges."

Mubita Sitali, 16, is also inspired by being an ambassador. "I used to experience the effects of climate change but I did not know what caused those things. I now know and will do something in my school. I will work with my friends and plant 1,000 trees at school and at home," Mubita says.

Mubita attends Mayukwayukwa Secondary School in Zambia's Western Province and was one of 250 children to be trained as climate ambassadors during the Zambian Children's Climate Conference held in Livingstone in August 2015.

Mubita joins the ranks of other climate ambassadors such as Brighton Mukupa Kaoma, now 21 and currently a second year Environmental Education student at the University of Zambia in Lusaka. Kaoma was one of the first 300 climate ambassadors trained in April 2010.

Kaoma set up a community-based organisation called Agents of Change.

"The foundation builds capacity in young people between the ages of 12 and 19 on issues that resonate among them including climate change, inequalities, and education through peer-to-peer mentorship, as well as leadership and social media trainings," says Kaoma. "The foundation believes in cultivating well-informed young leaders who can hold their leaders accountable in order to enhance transformative change."

# ACKNOWLEDGEMENTS

**Author:**

Joni Pegram,  
Unicef UK

**Research:**

Meghna Das  
and Joni Pegram,  
Unicef UK

**Design and  
editorial:**

Sally De Souza  
Leonie Brown and  
Christian Humphries,  
UNICEF UK

Numerous people contributed their time and expertise to preparing this report. We wish in particular to acknowledge the following:

Jose Gestí Canuto, UNICEF  
Jane Minjin Chun, UNICEF  
Cristina Colon, UNICEF  
Alex Heikens, UNICEF  
Antony Spalton, UNICEF  
UNICEF Bangladesh  
UNICEF Burundi  
UNICEF CAR  
UNICEF Honduras  
UNICEF Madagascar  
UNICEF Sudan  
UNICEF Uganda  
UNICEF Vietnam  
UNICEF Zambia  
Verisk Maplecroft

**A note on the maps**

All maps

© Verisk Maplecroft, 2015

Data sources:

Verisk Maplecroft, 2015

\* The Climate Change Vulnerability Index evaluates the vulnerability of human populations to extreme climate related events and changes in major climate parameters over the next 30 years. The Climate Change Vulnerability Index combines the risk of exposure to climate change and extreme events, with the current human sensitivity to that exposure and the capacity of the country to adapt to, or take advantage of, the potential impacts of climate change. This is a global index: variance at the subnational level is relative to the global rather than the local scale.



*A girl in Burundi carries water back to her home. In many countries children walk long distances to collect clean drinking water.*

© UNICEF/BRDA13/Colfs

# REFERENCES

- 1 IPCC, 2014: Climate Change 2014: Synthesis Report. <http://www.ipcc.ch/report/ar5/syr/>
- 2 <http://www.internal-displacement.org/assets/library/Media/201507-globalEstimates-2015/GE-2015-HighlightsFINAL.pdf>
- 3 <http://hdr.undp.org/en/countries>
- 4 Verisk Maplecroft, Climate Change Vulnerability Index 2016, Climate Change and Environmental Risk Atlas
- 5 Unicef, State of the World's Children 2015
- 6 Verisk Maplecroft, Climate Change Vulnerability Index 2016, Climate Change and Environmental Risk Atlas
- 7 Central African Republic's Intended Nationally Determined Contribution to the UNFCCC, September 2015: [http://www4.unfccc.int/submissions/INDC/Published%20Documents/Central%20African%20Republic/1/CPDN\\_R%C3%A9publique%20Centrafricaine\\_EN.pdf](http://www4.unfccc.int/submissions/INDC/Published%20Documents/Central%20African%20Republic/1/CPDN_R%C3%A9publique%20Centrafricaine_EN.pdf)
- 8 [http://www.unicef.org/infobycountry/media\\_85654.html](http://www.unicef.org/infobycountry/media_85654.html)
- 9 WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, 2015: <http://www.wssinfo.org/>
- 10 <http://hdr.undp.org/en/countries>
- 11 Verisk Maplecroft, Climate Change Vulnerability Index 2016, Climate Change and Environmental Risk Atlas
- 12 Unicef, State of the World's Children 2015
- 13 <http://www.unicef.org/sudan/>
- 14 Sudan MICS Report, 2014: <http://mics.unicef.org/surveys>
- 15 <http://hdr.undp.org/en/countries>
- 16 Verisk Maplecroft, Climate Change Vulnerability Index 2016, Climate Change and Environmental Risk Atlas
- 17 Unicef, State of the World's Children 2015
- 18 [http://www.unicef.org/lac/Desafios\\_1\\_ing%285%29.pdf](http://www.unicef.org/lac/Desafios_1_ing%285%29.pdf)
- 19 <https://germanwatch.org/en/download/10333.pdf>
- 20 <http://hdr.undp.org/en/countries>
- 21 Verisk Maplecroft, Climate Change Vulnerability Index 2016, Climate Change and Environmental Risk Atlas
- 22 Unicef, State of the World's Children 2015
- 23 [http://www.unicef.org/madagascar/eng/UNICEF\\_MADA\\_AR2013\\_ENG\\_interactive\\_LOWRES.pdf](http://www.unicef.org/madagascar/eng/UNICEF_MADA_AR2013_ENG_interactive_LOWRES.pdf)
- 24 Madagascar's intended Nationally Determined Contribution to the UNFCCC, October 2015: <http://www4.unfccc.int/submissions/INDC/Published%20Documents/Madagascar/1/Madagascar%20INDC%20Eng.pdf>
- 25 IFRC Operation Update, <http://adore.ifrc.org/Download.aspx?FileId=73446>
- 26 [http://www.unicef.org/about/annualreport/files/Madagascar\\_Annual\\_Report\\_2014.pdf](http://www.unicef.org/about/annualreport/files/Madagascar_Annual_Report_2014.pdf)
- 27 <http://hdr.undp.org/en/countries>
- 28 Verisk Maplecroft, Climate Change Vulnerability Index 2016, Climate Change and Environmental Risk Atlas
- 29 Unicef, State of the World's Children 2015
- 30 People's Republic of Bangladesh's Intended Nationally Determined Contribution to the UNFCCC, September 2015: [http://www4.unfccc.int/submissions/INDC/Published%20Documents/Bangladesh/1/INDC\\_2015\\_of\\_Bangladesh.pdf](http://www4.unfccc.int/submissions/INDC/Published%20Documents/Bangladesh/1/INDC_2015_of_Bangladesh.pdf)
- 31 [http://www.unicef.org/infobycountry/bangladesh\\_40538.html](http://www.unicef.org/infobycountry/bangladesh_40538.html)
- 32 Unicef UK, 'Our Climate, Our Children, Our Responsibility', 2008
- 33 Climate extremes and child rights in South Asia: a neglected priority, ODI, Plan, 2012
- 34 <http://www.dhakatribune.com/feature/2015/oct/31/adaptation-climate-change-moving-local-national-and-planning-long-term>
- 35 <http://hdr.undp.org/en/countries>
- 36 Verisk Maplecroft, Climate Change Vulnerability Index 2016, Climate Change and Environmental Risk Atlas
- 37 Unicef, State of the World's Children 2015
- 38 Uganda's intended Nationally Determined Contribution, October 2015: <http://www4.unfccc.int/submissions/INDC/Published%20Documents/Uganda/1/INDC%20Uganda%20final%20%202014%20October%20%202015,%20minor%20correction,28.10.15.pdf>
- 39 Child Poverty Report, UNICEF Uganda 2013
- 40 Health Management Information Systems (HMIS, Uganda) for Kanawat
- 41 <http://hdr.undp.org/en/countries>
- 42 Verisk Maplecroft, Climate Change Vulnerability Index 2016, Climate Change and Environmental Risk Atlas
- 43 Unicef, State of the World's Children 2015
- 44 Burundi National Adaptation Plan of Action, <http://unfccc.int/resource/docs/napa/bdi01e.pdf>, 2007
- 45 Unicef 2013 annual report: [http://www.unicef.org/about/annualreport/files/Burundi\\_COAR\\_2013.pdf](http://www.unicef.org/about/annualreport/files/Burundi_COAR_2013.pdf)
- 46 <http://www.unicefstories.org/2015/03/01/the-right-to-energy/>
- 47 <http://hdr.undp.org/en/countries>
- 48 Verisk Maplecroft, Climate Change Vulnerability Index 2016, Climate Change and Environmental Risk Atlas
- 49 Unicef, State of the World's Children 2015
- 50 <http://www4.unfccc.int/submissions/INDC/Published%20Documents/Viet%20Nam/1/VIETNAM'S%20INDC.pdf>
- 51 UNICEF, Impacts of climate change and natural disasters on children in Vietnam, June 2015
- 52 <http://hdr.undp.org/en/countries>
- 53 Verisk Maplecroft, Climate Change Vulnerability Index 2016, Climate Change and Environmental Risk Atlas
- 54 Unicef, State of the World's Children 2015
- 55 Zambia's Intended Nationally Determined Contribution to the UNFCCC, September 2015: [http://www4.unfccc.int/submissions/INDC/Published%20Documents/Zambia/1/FINAL+ZAMBIA'S+INDC\\_1.pdf](http://www4.unfccc.int/submissions/INDC/Published%20Documents/Zambia/1/FINAL+ZAMBIA'S+INDC_1.pdf)
- 56 <http://www.fao.org/news/story/en/item/297768icode/>
- 57 [http://www.unicef.org/zambia/5109\\_8454.html](http://www.unicef.org/zambia/5109_8454.html)
- 58 Unicef, State of the World's Children 2015, based on medium fertility variant projections for the period 2013-2030

We live in a dangerous world where millions of children are suffering and dying unnecessarily.

Climate change wreaks havoc on children's lives. They are the hardest hit by climate-related disasters, each and every time.

Unicef is protecting children in danger. We help them adapt to their changing climate. We help them to be prepared when disaster strikes. And we empower them to speak out and to build a sustainable future.

Right now, millions of children are in danger. We'll do whatever it takes, until every child is safe.

[unicef.org.uk](http://unicef.org.uk)

Front cover image  
UNICEF/Vietnam2009/Chau

Registered Office  
30a Great Sutton Street  
London EC1V 0DU

Registered Charity No.  
1072612 (England and Wales)  
SC043677 (Scotland)

FOR  
EVERY  
CHILD IN  
DANGER

unicef   
UNITED KINGDOM