

El Niño's impact on children

**Briefing Note** 

# lt's not over

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## IT'S NOT OVER

#### A trail of devastation

The massive 2015-2016 El Niño has finally run its course, but its devastating impact, particularly on children, is far from over. In Eastern and Southern Africa – the worst-hit areas – 26.5 million children need support, including more than one million who need treatment for severe acute malnutrition (SAM) this year. Those alarming numbers may well rise further as a result of the droughts and diseases spawned by the massive weather phenomenon.

And forecasters believe there is a very strong chance La Niña – El Niño's flip side – will hit at some stage in 2016. La Niña could bring more extreme weather and suffering, in many cases to the same areas struggling to recover from the havoc wrought by El Niño.

The most recent El Niño event was one of the strongest on record, fuelling the highest global temperatures in more than 130 years<sup>1</sup>, forcing thousands to flee their scorched or flooded lands, causing major crop losses and food price increases, affecting water supplies and leaving millions of people foodinsecure. The latest cycle, which started in March 2015, hit hardest in some of the world's poorest countries, with children among the worst affected.

It caused severe drought in Southern Africa and the Horn of Africa, as well as Central America and parts of the Caribbean, Asia and the Pacific; flooding in parts of Eastern Africa and South America; and a higher than usual occurrence of forest fires in Southeast Asia.

In many countries, already strained resources have reached their limits. Unless more aid is forthcoming, including urgent nutritional support for young children, decades of development progress could be eroded.

#### Children hit hardest

Children in the worst affected areas are going hungry now. And their futures are at risk, as the extreme weather has disrupted schooling, increased disease and malnutrition, and robbed families of their livelihoods.

In drought-affected areas, some children are staying away from class to fetch water over long distances, or have moved away with their families following loss of crops or livestock. Being out of school often increases a child's risk of abuse, exploitation and, in some areas, child marriage.

Malnutrition among children under 5 has increased alarmingly in many of the affected areas, as families who were already living hand-to-mouth resort to drastic coping mechanisms, such as skipping meals or selling off assets. Undernutrition at a young age can have long-lasting effects, including increased risk of illness, delayed mental development or premature death, and can be passed on to the next generation. Undernourished girls have a greater likelihood of becoming undernourished mothers, who are more likely to give birth to low birthweight babies.

Changes in temperature, humidity and rainfall – coupled with El Niño's impact on water, sanitation and hygiene – have been linked to increases in diseases such as dengue fever, diarrhoea and cholera, which are major killers of children. In South America, and particularly Brazil, El Niño has created favourable breeding conditions for the Aedes mosquito that can transmit the Zika virus, as well as dengue, yellow fever and chikungunya.

"El Niño has left millions of children hungry or at risk of hunger and disease. The weather event may be over, but its impact on children – many of whom are among the world's most deprived – will be felt for years. And if La Niña develops, those same children would find themselves in the path of more extreme weather."

UNICEF Director of Emergency Programs, Afshan Khan.

#### Increases in HIV likely

There are also serious concerns that El Niño could lead to an increased transmission rate of HIV, particularly in Southern Africa, the global epicentre of the AIDS pandemic. A 2014 study of 18 countries in sub-Saharan Africa, found that infection rates in HIV-endemic rural areas increased by 11 per cent after every recent drought.

Food insecurity affects access to anti-retroviral therapy and adherence to treatment regimens, as patients tend not to take medication on an empty stomach, and many people will use their limited resources for food rather than for transport to a health facility. Drought and its impact on livelihoods can also force people, especially adolescent girls and women, to engage in transactional sex, which increases their vulnerability to HIV infection.

Mortality among children living with HIV is two to six times higher for those who are severely malnourished than for those who are not.

Nine countries in Southern Africa – Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe – have adult HIV prevalence of over 10 per cent. These same countries have been extensively affected by El Niño.



#### Bracing for La Niña

El Niño is characterized by unusually warm waters in the Equatorial Pacific, while La Niña results from unusually cold ocean temperatures in the same area. La Niña tends to influence climate in the same areas as El Niño, but in the opposite way. Where El Niño caused drought, La Niña could bring heavy rains, and where El Niño triggered flooding, La Niña could bring dry conditions. La Niña tends to be less damaging than its counterpart, but can have a devastating impact on communities already left extremely vulnerable by El Niño.

While La Niña could bring badly needed rains to some areas, there are concerns heavy downpours could cause flooding, with potentially disastrous consequences, damaging agricultural land, destroying crops, triggering landslides and cutting off roads that are vital for the supply of aid and food to the most vulnerable communities. La Niña, which usually lasts 9 to 12 months, also typically contributes to more hurricanes in the Atlantic.

Based on previous La Niña episodes, Southern Africa and much of South and Southeast Asia can expect above-normal rain levels – and possible flooding – late in the year and into early 2017. In Central America and the Caribbean, La Niña is associated with above-normal rains, particularly between June and August. This could be beneficial to crops, but hurricanes could increase the risk of flooding. Parts of South America could also see wetter than normal conditions. By contrast, drier than normal conditions are likely in Eastern Africa, and parts of Ecuador and Peru.<sup>2</sup>

If La Niña does strike, it is likely to exacerbate the impact of El Niño on vulnerable populations at a time when resources in many of the affected countries are already stretched to the limit. As a result, UNICEF fears that more children will face severe acute malnutrition, food insecurity and potentially deadly diseases; more families will have to resort to negative coping mechanisms or migration; and school attendance will drop further. And there are concerns La Niña could favour the spread of the Zika virus to areas of Latin America and the Caribbean that were not previously affected.

### REGIONS AND COUNTRIES AFFECTED

#### Africa

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El Niño exacerbated drought across Eastern and Southern Africa after a series of climatic shocks in 2014 and 2015 had already ruined harvests and depleted water sources, leaving many children dependent on food aid to survive.



**1.4 million** people are food insecure



96,000 children are suffering from SAM

In Angola, 1.4 million people, including 756,000 children, are affected by drought, mainly in the semi-arid southern provinces. Of the affected children, almost 96,000 are suffering from SAM. A massive outbreak of yellow fever that started in December 2015 had killed more than 345 people by 17 June 2016.<sup>3</sup>

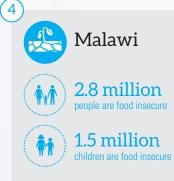
2) Swaziland

In Swaziland over 300,000 people, or nearly a quarter of the population, are affected by drought.

Lesotho 530,000 people are food insecure 310,000 children are food insecure

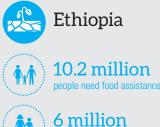
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In Lesotho, more than 530,000 people – including over 310,000 children – are food-insecure, and 12.3 per cent of children are chronically malnourished. Increases in diarrhoea cases have been reported in recent months.



Malawi is experiencing its worst food security crisis in over a decade, with 2.8 million people, including 1.5 million children, currently food-insecure. Almost half the children under 5 already have low height for age – a sign of undernutrition known as stunting – and are at risk of developing SAM. CEF JULY 2016

(1)



Ethiopia is experiencing its worst drought in 50 years. An estimated 10.2 million people, including 6 million children, will need humanitarian food assistance in 2016.

children need food assistance



In Madagascar, an intense drought in the southern part of the country has left 1.1 million people – 80 per cent of the southern population – foodinsecure.



In Zimbabwe, 2.8 million people, including 1.5 million children, are facing food and nutrition insecurity Somalia Somalia 385,000 people are food insecure 100,000

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children under 5 are acutely malnourished

In Somalia 385,000 people are facing acute food insecurity, with an additional 1.3 million at risk if immediate assistance is not provided. Nearly 100,000 children under 5 are acutely malnourished and in urgent need of treatment. Increases of acute watery diarrhoea cases have been recorded at health centres in Puntland and Somaliland, as communities share the only available and unprotected water sources with livestock. Heavy rains have caused flash floods in some areas, exacerbating the risk of water-borne diseases and further displacement.



Mozambique is experiencing its worst drought in 30 years. A total of 1.5 million people are facing food insecurity and nutritional crisis, and more than 190,000 children are expected to be acutely malnourished over the next 12 months.

### 🏡 Eritrea

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In Eritrea, the effects of El Niño have led to high levels of malnutrition among children under 5, especially in the lowlands. Acute malnutrition remains one of the major underlying causes of death in the country. 11

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#### Democratic People's Republic of Korea

In the Democratic People's Republic of Korea, severe drought in 2015 has disrupted food production and led to water shortages. UNICEF has noted an increase in severe malnutrition among children under 5. In affected areas, there has been a 72 per cent increase in the incidence of diarrhoea among children under 5.

#### Asia and the Pacific

Severe droughts and extreme heat blamed partly on El Niño have affected millions of people in Asia and the Pacific. Several countries in the region could face a significant risk of flooding if La Niña develops.

El Niño has highlighted the vulnerability of Pacific island countries and territories, which also find themselves on the frontlines of climate change. The recent event fuelled powerful cyclones and caused severe water shortages in several Pacific countries. El Niño conditions have been weakening since January 2016, but the impact is still being felt. A La Niña event could mean an increased risk of typhoons and cyclones in some countries in the region. This could affect water and food security, and contribute to saltwater intrusion into freshwater supplies on atoll islands.

Vietnam

2 million people affected

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Vietnam is struggling with severe drought. A total of 2 million people are affected, more than a quarter of them children. In the Mekong Delta, the drought and decreases in ground water levels have resulted in the most extensive seawater intrusion in 90 years, severely affecting cropland and water supplies. Reduced access to water has contributed to increased incidence of diarrhoea, dysentery, skin diseases and hand, foot and mouth disease.

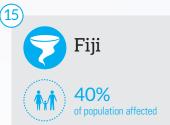


In Indonesia, dry conditions have led to a higher than usual number of wildfires and, as a result, to respiratory infections, which are particularly dangerous for children. Significant increases in the price of rice have put pressure on the most vulnerable. An estimated 1.2 million people are in need of support. Cambodia 2.5 million people affected

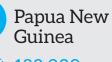
> Cambodia is experiencing water shortages as a result of what is considered the worst drought in about 50 years. Some 2.5 million people are severely affected.<sup>4</sup>



4 Asia and the Pacific: Weekly Regional Humanitarian Snapshot (24 - 30 May 2016)



In Fiji, Cyclone Winston, which made landfall in February 2016, affected 40 per cent of the population. It damaged or destroyed almost 500 schools and early learning centres, interrupted power and water supplies as well as health and other essential services, and caused widespread outbreaks of respiratory, vector-borne and waterborne diseases. Just six weeks later, another cyclone caused severe flooding. Crops were again destroyed, including newly replanted seeds and seedlings, deepening the vulnerability of many families dependent on agriculture as a key source of income and food.



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180,000 people in need of food assistance

Papua New Guinea suffered from both drought and frost, which affected the food security of nearly 1.5 million people. Heavy rains caused flooding in parts of the country in February and March of 2016. Over 180,000 people remain in urgent need of food assistance.<sup>5</sup> Water shortages in the worst affected areas forced schools to close for half the day and led health facilities to scale down operations or close.

OCHA Asia and the Pacific: Overview of El Nino and Responses June 2016 On 25 February 2016, Adi (13) and her 4-year-old brother Waisake, outside their home destroyed by Tropical Cyclone Winston in Yaqeta village, Yasawa island group, Fiji. EL NIÑO'S IMPACT ON CHILDREN

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### Latin America and the Caribbean

Central American countries are experiencing their worst drought in decades. Some 3.5 million people are affected, including more than 2 million who are food-insecure and need humanitarian assistance. If La Niña develops, countries in the region also face the potential threat of a more active hurricane season.

In South America, Ecuador, Chile, Paraguay and Peru have experienced floods in low-lying areas and drought in mountain regions. 🔑 Honduras

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In Honduras, some 1.3 million people have been severely affected by the drought, including more than 252,000 who require immediate humanitarian assistance.



In El Salvador, 700,000 people have been affected by drought, including some 170,000 who are considered food-insecure.



In Guatemala, an estimated 915,000 people are food-insecure, and in some areas, SAM rates as high as 8 per cent have been reported.<sup>6</sup>

#### 20 Haiti 1.5 million people affected 130,000 children under 5 are acutely malnourished

Haiti has suffered massive crop losses to drought. An estimated 1.5 million people are severely food insecure and need immediate food assistance. Some 130,000 children under the age of 5 are suffering from acute malnutrition. Like other countries in the Caribbean, Haiti would face the potential threat of a more active hurricane season if La Niña develops.



### WHAT NEEDS TO BE DONE

Some of the world's most vulnerable people, many of them children, have found themselves in the path of one of the most powerful El Niño events on record. Millions of people have been left reeling from drought or flooding that destroyed livelihoods, caused hunger and spread disease. It could take them years to recover, particularly if La Niña worsens the situation. The scale of the crisis has outstripped the coping capacities of communities and the resources of governments, putting decades of development gains at risk. Affected communities urgently need food, water, nutrition, health and livelihood support. These communities also need help to prepare for the eventuality that La Niña will compound the humanitarian crisis. And they will require longer-term support: The monster El Niño of 2015-2016 has clearly demonstrated the need to step up emergency preparedness, disaster risk reduction and climate change adaptation efforts at a time when climate change is spurring increasingly severe and frequent extreme-weather events. Children's futures, and their very survival, depend on action taken today. The humanitarian crisis will only grow if the world fails to act now.

### HOW UNICEF IS HELPING

UNICEF provides support to affected communities, particularly the most vulnerable children. It is working with governments and other partners to:

- Treat young children suffering from SAM. In Ethiopia, for example, UNICEF has procured more than half a million cartons of ready-to-use therapeutic food for the treatment of SAM cases.
- Provide emergency medical care.
- Provide safe drinking water. In Eastern and Southern Africa, UNICEF reached almost 2.7 million people with clean water in the first months of 2016.
- Step up vaccination drives.
- Mobilize communities to promote health and hygiene practices.
- Provide HIV education and services. In Eastern and Southern Africa alone, more than 100,000 people were reached in the first months of 2016.
- Support schools, helping them stay open and provide food and water for their students.
- Provide food or cash support to the most vulnerable households to avert the risk of children resorting to child labour or other risky activities.

UNICEF also works with its partners to help strengthen the resilience of children and their families, and their ability to cope with future extreme weather events, and advocates to strengthen investment in education on environmental issues.

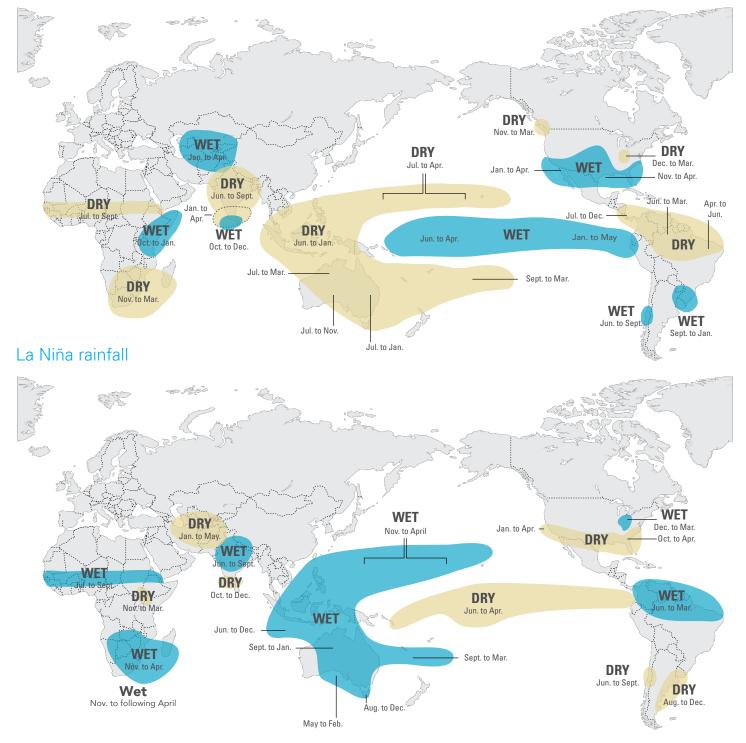


On 11 February 2016 in Ethiopia, a tiny baby boy sleeps while being weighed in a sling-scale during a nutrition screening at the UNICEF-supported community health post in Arago Nemano Kabele, Shalla Woreda, West Arsi Zone. Across Ethiopia, millions of children are struggling to cope with food insecurity, lack of water, disease and threats to their education and safety. The situation is exacerbated by rising food prices, which have forced families to forgo meals, sell off their assets and take other drastic measures in order to survive. Nearly 6 million children in the country are in need of food assistance. UNICEF, working with the Government, is helping to provide therapeutic food and therapeutic milk and other support in response to the drought emergency.

# EL NIÑO AND LA NIÑA RAINFALL

El Niño and La Niña conditions in the tropical Pacific are known to shift rainfall patterns in many different parts of the world. Although they vary somewhat from one to the next, the strongest shifts remain fairly consistent in the regions and seasons shown on the maps below.

#### El Niño rainfall



For more information on El Niño and La Niña, go to: http://iri.columbia.edu/enso/ Sources:

1. Ropelewski, C. F., and M. S. Halpert, 1987: Global and regional scale precipitation patterns associated with the El Nino Southern Oscillation. Mon. Wea. Rev., 115, 1606-1626; 2. Mason and Goddard, 2001. Probabilistic precipitation anomalies associated with ENSO. Bull. Am. Meteorol. Soc. 82, 619-638

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#### **COVER PHOTO:**

On 9 February 2016 in central Ethiopia, (left) Harko, 12, accompanied by her brother, walks home across an arid stretch of land behind two donkeys carrying jerrycans filled with water, in Haro Huba Kebele in Fantale Woreda, in East Shoa Zone, Oromia Region. Harko, who must search for water almost every day, no longer attends school. She travels at night to avoid the heat and does not get home until well into the afternoon on the following day. She says that the journey can be scary because they must watch out for hyenas. Two years of erratic rainfall and drought combined with one of the most powerful El Niño events in 50 years have put millions of children in Eastern and Southern Africa at risk of hunger, water shortages and disease. The situation is exacerbated by rising food prices, which have forced families to forgo meals, sell off their assets and take other drastic measures in order to survive. Across Ethiopia, millions of children are struggling to cope with food insecurity, lack of water, disease and threats to their education and safety.

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For further information, please contact: Patrick Moser UNICEF New York e-mail: pmoser@unicef.org Phone: +1 212 326 7120

