

Unless we act now

Executive summary



The impact of climate change on children

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Climate change will increasingly impact everybody, but children will be disproportionately affected, particularly in areas where poverty is rampant.

Hundreds of millions of today's children live in areas that are most exposed to climate change. These areas range from coastal South Asia to the Mekong Delta, from the Pacific Islands to the Horn of Africa and equatorial Africa, to coastal Latin America and the Caribbean.

Climate change means more droughts, floods, heatwaves and other severe weather conditions, which will contribute to the increased spread of major killers of children, such as malnutrition, malaria and diarrhoea. These are particularly dangerous for very young children as they can impede their early development, with lifelong, irreversible impacts. Climate change can also create a vicious circle: a child deprived of adequate water and sanitation before a crisis will be more affected by a flood, drought, or severe storm, less likely to recover quickly, and at even greater risk when faced with a subsequent crisis.

The sheer number of children exposed to climate risk is alarming.

Nearly 530 million children live in extremely high flood occurrence¹ zones, over 300 million of them in countries where half or more of the population lives on less than \$3.10 per day.² Nearly 160 million children live in areas of high or extremely high drought severity³, including almost 50 million in countries where half or more of the population lives on less than \$3.10 per day.

Floods and storms

Besides the immediate risks of death and injury, floods compromise clean water supplies and damage sanitation facilities, increasing the risk of diarrhoea outbreaks. When a family loses its livelihood to floods, food becomes scarce, increasing the risk of malnutrition, particularly among young children. And children orphaned in a disaster face a higher risk of abuse, child labour and trafficking.

The vast majority of the children in extremely high flood occurrence zones live in Asia.

More than 115 million children live in zones at high or extremely high risk for tropical cyclones – known as typhoons, hurricanes or cyclones depending on their location – with Asia by far the most vulnerable continent. In addition to the immediate threat they present, such storms often cause extensive damage to infrastructure and agriculture.

¹ Areas that had more than 27 floods between 1985 and 2011.

² In October 2015, The World Bank updated its International Poverty Lines from \$2.00 a day to \$3.10, and for extreme poverty from \$1.25 to \$1.90 a day.

³ Drought severity estimates the average of the length times the dryness of droughts from 1901 to 2008.

Droughts

Drought can lead to crop failures and rising food prices, which for the poor mean food insecurity and nutritional deprivations that can have lifelong impacts for children. Undernutrition contributes to the severity of a range of diseases, and is responsible for almost half of worldwide deaths of children under the age of five. Untreated undernutrition during the first two years of life can lead to irreversible stunting – low height for age – that affects both physical and cognitive development and has implications for the rest of a child’s life, including schooling, health and livelihood. In addition, lack of safe water and poor sanitation conditions as a result of displacement can increase the likelihood of communicable diseases.

Drought can also lead to forest and peat fires that can send entire communities fleeing their homes, burn crops, destroy homes and severely affect basic services. Smoke from wildfires is particularly harmful to children, whose lungs are small and still developing, and who breathe at a faster rate per unit of body weight than adults.

Over 50 per cent of the people living in areas of high or extremely high drought severity are in Africa and nearly 40 per cent in Asia.

Heatwaves

Children are also more vulnerable to heatwaves, which are becoming more frequent and more intense as a result of climate change. Infants and small children are more likely to die or suffer from heatstroke, because they are unable to regulate their body temperature.

Heatwaves can cause rashes, cramps, exhaustion and stroke. Extreme heat stress can result in dehydration, which slows the sweating rate. This is a common cause of hyperthermia and death among infants, young children and the elderly. Extreme heat will become a growing problem in large parts of the world, even in many temperate climate countries, as a result of climate change.



The Challenge Ahead

The most urgent task ahead is for world governments and others to act now to halt the advance of climate change by curbing emissions and prioritizing clean, sustainable energy sources. The worst impacts can only be avoided if greenhouse gas emissions are cut so that average global temperatures increases are limited to no more than 2°C over pre-industrial levels, and ideally to 1.5°C.

Projections clearly show that the more ambitious the action taken to reduce emissions, the more children will be saved from the worst effects of climate change. At the same time, we must also deal with the impacts of the carbon already emitted into the atmosphere. Children are already feeling the effects of climate change. We need to prepare now to help make the world's children as resilient as possible. Essential steps include:

- Prioritizing the needs of the most vulnerable, including children, in climate change adaptation;
- Reducing inequity among poor children and families to improve their capacity to withstand the effects of climate change;
- Investing in children when implementing national climate plans on mitigation and adaptation;
- Putting in place measures to protect children who have been displaced as a result of climate change;
- Providing children and youth with climate change education and training.
- Recognizing that children and youth are not mere victims but can play a central role in helping address climate change. The voices of children and youth must be lifted to the forefront of the climate action debate.



Floods: double disadvantages

Fig. 1.

NEARLY
530
MILLION



children live in extremely high flood occurrence zones.

NEARLY
100
MILLION



children live in extremely high flood occurrence zones in countries **with low access to safe water.**^b



OVER
400
MILLION



children live in extremely high flood occurrence zones in countries with **high proportions of diarrhoeal deaths.**^e



OVER
270
MILLION



children live in extremely high flood occurrence zones in countries **with low access to improved sanitation.**^a



OVER
6
MILLION



children living in extremely high flood occurrence zones also live in **fragile contexts.**^c



10
MILLION



children face the double danger of living in extremely high flood occurrence zones and in countries **with high proportions of malaria deaths.**^f



OVER
300
MILLION



children living in extremely high flood occurrence zones are also in countries where half or more of the population **lives on less than \$3.10 per day.**^d



a - Countries where less than half of the population has access to improved sanitation facilities. **Source:** WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation (WHO/UNICEF JMP)

b - Countries where 10 per cent or more of the population lacks access to improved drinking-water sources. **Source:** WHO/UNICEF/JMP

c - Countries defined by World Bank - Harmonized List of Fragile Situations FY16.

d - Countries where half or more of the population lives on less than \$3.10 per day, as per recent updates on poverty thresholds by World Bank.

e - Countries where more than 5% of deaths under 5 years of age are due to diarrhoea. **Source:** WHO-MCEE estimates of child cause of death, 2000-2015/UNICEF

f - Countries where more than 5% of deaths under 5 years of age are due to malaria. **Source:** WHO-MCEE estimates of child cause of death, 2000-2015/UNICEF





Droughts: double disadvantages

Fig. 2.

NEARLY
160
MILLION



children live in areas of high and extremely high drought severity.

OVER
50
MILLION



children live in areas that face both high drought severity and where half or more of the population **lives on less than \$3.10 per day.** ^c

NEARLY
70
MILLION



children live in areas of high and extremely high drought severity in countries **with low access to improved sanitation.** ^a

OVER
20
MILLION



children living in areas of high and extremely high drought severity also live in **fragile contexts.** ^d

NEARLY
60
MILLION



children live in areas of high and extremely high drought severity in countries **with low access to safe water.** ^b

a - Countries where less than half of the population has access to improved sanitation facilities. Source: WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation (WHO/UNICEF JMP)

b - Countries where 10 per cent or more of the population lacks access to improved drinking-water sources. Source: WHO/UNICEF/JMP

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