Triple Threat

How disease, climate risks, and unsafe water, sanitation and hygiene create a deadly combination for children
Cover: A boy collects what little water he can from a dry riverbed near Dolow, Somalia, where extended drought has caused a severe water crisis. © UNICEF/UN0607653/Rich
Triple Threat

How disease, climate risks, and unsafe water, sanitation and hygiene create a deadly combination for children

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Globally, 600 million children still lack safely managed **drinking water**, 1.1 billion lack safely managed **sanitation** and 689 million lack basic **hygiene** service.

149 million children still face the indignity of practising **open defecation**.

**Unsafe water, sanitation and hygiene** (WASH) is still responsible for the deaths of around 400,000 children under the age of 5 each year, or 1,000 every day.

The **challenge of extending WASH services** to children in need is further compounded by water scarcity, floods and cyclones – all exacerbated by the climate crisis.

The **triple burden of WASH-related threats** facing children – limited access to WASH services, the burden of WASH-related diseases among children under 5 and increasing fragility from climate threats – is primarily concentrated in a small number of countries.

Ten countries alone – with a combined population of over 190 million children and all in sub-Saharan Africa – face this **triple burden**. Around 2 out of 5 deaths from unsafe WASH services are concentrated in these countries.

All 10 countries are classified by the Organisation for Economic Co-operation and Development as either fragile or extremely fragile (as of 2022). The stresses from **conflict and climate change** will make it even more challenging for these countries to accelerate progress towards the targets of the Sustainable Development Goals (SDGs) and threaten the gains made to date.

Almost all cases of **cholera** between 2010 and 2021 were from 31 of the 34 countries with the lowest levels of water and sanitation services. Only three countries with levels of less than 70 per cent for basic water and 55 per cent for basic sanitation coverage did not report cholera cases.

It is estimated that three times the **current investment** – at least US$114 billion per year – is needed in developing countries to meet the WASH-related SDG targets by 2030.

UNICEF is calling on **governments and partners** to:

- **Scale up investment** in the sector, including global climate financing.
- **Strengthen resilience** in the WASH sector and communities.
- **Prioritize leaving no one behind**.
- Increase effective and **accountable coordination and capacities** to provide water and sanitation services.
- **Implement the UN-Water SDG 6 Global Acceleration Framework** and invest in the key accelerators.
Dominican Republic – In the early hours of 19 September 2022, hurricane Fiona landed at Cabo San Rafael (La Altagracia province). Hurricane-force winds extend about 45 km off its centre, and storm-force winds extend nearly 240 km. UNICEF is working with the national government, partners, and United Nations agencies to support children and their families affected by the hurricane.
Izayya Idris often misses part of her school day to collect safe water for her family in Gabarin, Nigeria. The polluted water near the 13-year-old’s home causes stomach aches and fevers. “Fetching water every day has really affected my studies. Most of the time, by the time I get back, lessons have already started. And sometimes, by the time I get to school, it’s already break time.”

Each day, millions of children like Izayya are forced to choose between going to school or collecting water that is safe to drink for themselves and their families. In essence, this is a choice between education and health, and it is one no child should ever have to make.

Access to safe drinking water and sanitation are human rights to which we are all entitled. They are fundamental for human survival, dignity, economic development and well-being. In the absence of safe water and sanitation, children are more likely to be out of school and there is an increased risk of disease outbreaks, intercommunal tension and population displacement.

When government and civil society leaders met at the last United Nations Water Conference in 1977, most countries lacked the tools needed to systematically measure their water resources. Fortunately, our capacity to effectively monitor and manage water resources has improved considerably and access has expanded. Since 2000, around 600 million children have gained access to safely managed drinking water and 700 million have gained access to safely managed sanitation services.

But this progress is not enough. An estimated 3.6 billion people – half of the world’s population – still lack safe sanitation at home, while 1.8 billion live in homes without safe drinking water. Each year, 829,000 people die from diseases directly attributable to unsafe water, inadequate sanitation and poor hygiene practices.

These figures are deeply alarming and are a clear indication that we are far from achieving universal access to safe water and sanitation – Goal 6 of the Sustainable Development Goals (SDGs).

At the same time, climate change, urbanization and conflict are undermining global efforts to achieve the SDGs and threatening to roll back the gains already made in access to WASH services. As this Advocacy Spotlight shows, unsafe WASH, water-borne diseases and climate threats have converged into a ‘triple burden’ for children.

Today, more than 190 million children live in the 10 countries most affected by this combination of threats.

This is a crisis of unprecedented scale, but we know how to tackle it. And we must.

From a small handful of pilot projects in rural communities in 1953 to working in 130 countries today, UNICEF has been committed to providing safe water, sanitation and hygiene to children worldwide for 70 years. This commitment is a core part of our organizational DNA and is why UNICEF now has the world’s largest WASH programme. We are also striving to make it the world’s largest climate-resilient WASH programme. This work includes installing solar powered water system, using drones to map flood zones and deploying early warning systems to prepare for drought.

Now, we are urging the international community to join UNICEF and our partners in securing safe water and sanitation for all. Through political will, leadership, investment and collective action, we can get the job done.

It has been 46 years since world leaders came together for a forum dedicated to water. The UN 2023 Water Conference in March is an historic opportunity to unite behind a bold agenda for action to secure sustainable WASH access for children and for us all. It is an opportunity we cannot afford to miss.
Burkina Faso – Woman and children gather water in the village of Song Naba, in the country’s northern Passoré Province.
Introduction

Safe water is essential to life itself. Proper sanitation and hygiene prevent the spread of disease and infection, and ensure human dignity. Without these essential services, the most basic needs of life are unmet. Children die of diarrhoeal disease. Their education is disrupted or stalled. Malnutrition is magnified due to growing food insecurity – driven in part by water resource challenges. Families are forced to migrate. Armed conflict and child labour proliferate.

Unsafe water, sanitation and hygiene continue to cause entirely preventable diseases and deaths among young children. Every day, almost 4,000 people die from diseases attributable to inadequate WASH; over 1,000 of these deaths are among children under five.

The human rights to safe drinking water and sanitation are enshrined in the Convention on the Rights of the Child and the Geneva Conventions of 1949. The United Nations General Assembly and the Human Rights Council recognized these rights as part of binding international law in 2010. Yet even now, over a decade later, 600 million children under age 18 worldwide live without safely managed drinking water and 1.1 billion without safely managed sanitation. This is a collective global failure to fulfil children’s most basic rights.

Progress towards the global Sustainable Development Goal targets related to WASH is dangerously slow. It is estimated that at least US$114 billion per year is needed in developing countries to meet the SDG targets for WASH by 2030. And the progress that has been made in recent years is fragile. The stresses from climate change, conflict, population growth and other factors threaten the gains made to date.

The last time the world met on this issue was in 1977. Back then, 105 countries along with civil society organizations came together to try to prevent a water crisis by the end of the century. Food security was the major focus of the 1977 United Nations Water Conference and the dangers posed by a changing climate were not mentioned in the outcome document. Many of the same obstacles remain today – the water demands of agriculture, urbanization, water scarcity – but new threats such as climate change and increasing conflict and migration have emerged. This year’s United Nations Water Conference is a once-in-a-generation opportunity for recommitment, focus and sustained action towards these most basic but critical SDGs.

While we have the tools, evidence and solutions to meet global goals, the challenge is immense. Millions of children today face a triple burden of lacking access to basic water, sanitation and hygiene, death from diseases related to unsafe water, sanitation and hygiene, and increasing climate threats including water scarcity, heatwaves, flooding and cyclones that make their already fragile services even harder to access. We know where the greatest challenges lie. Ten countries – with a combined population of over 190 million children – face the heaviest burden.
The triple burden

The triple burden examines the WASH-related threats facing children at the intersection of access to WASH services, the burden of WASH-related diseases and climate threats. Through examining the burden of disease from unsafe WASH, we see where the problem is greatest. Through examining access to water and sanitation services, we see where investment is the lowest. Through examining climate threats, we see which countries face the greatest risk to both health and services for children.

The triple burden is defined in this brief as: less than 50 per cent access to at least basic water or sanitation services; within the top 20 countries with the highest burden of deaths attributable to unsafe WASH among children under 5; and within the top 25 per cent of countries facing the highest risk of climate and environmental hazards in UNICEF’s Children’s Climate Risk Index (CCRI).

Data on access to water and sanitation services in 2020 come from the WHO/UNICEF Joint Monitoring Programme 2021 update of progress on household drinking water, sanitation and hygiene 2000–2020: five years into the SDGs, available at washdata.org/data.


The ranking of the risk of exposure to climate and environmental hazards, shocks and stresses among children comes from UNICEF’s Children’s Climate Risk Index (CCRI) available at www.unicef.org/reports/climate-crisis-child-rights-crisis. The 2020 CCRI estimates, released in 2021, provide the first comprehensive analysis of climate risk from a child’s perspective. They help to rank countries based on children’s exposure to eight climate and environmental shocks, such as cyclones and heatwaves.
Part 1

Causes and impacts of water insecurity

The reasons why millions of families and communities around the world lack safe drinking water, sanitation and hygiene services are complex and often interrelated.

Population growth and urbanization. As populations increase, economies develop, living standards rise and the demand for water increases. In less than 10 years, 45 major urban areas with more than 3 million people are projected to be under high or extremely high water stress (when water demand exceeds the available amount or when poor quality restricts its use). Globally, water demand is projected to increase by 20–30 per cent by 2050. The lack of investment in rural areas results in low-quality and unsustainable services and distant water sources.

Climate change. Droughts are becoming increasingly common and especially affect the most vulnerable. Droughts mean less water is available, creating conflict and inhibiting good sanitation and hygiene practices. This places huge stresses on communities, especially the most vulnerable. Less water means that children eat less nutritious food. Children and women are forced to walk farther distances to fetch water, leading to less schooling. It can force families to migrate.

Flooding leads to water contamination and heavy rainfall from storms and tropical cyclones proliferate vector-borne diseases. Flooded latrines and septic tanks can contaminate water supplies, making the water unsafe.

The rise in heatwaves and extreme high temperatures increases the demand for water. The resulting water scarcity – when demand for water exceeds supply – hinders children’s ability to regulate their body temperatures and stay hydrated. It can also force communities to rely on unsafe water sources, leading to outbreaks of waterborne diseases like cholera.

Climate-related shocks including strong storms and cyclones damage or destroy water and sanitation infrastructure. This not only affects water quality, but also leads to service disruptions for repairs, and reliance on emergency operations.

Much more needs to be done to make WASH services resilient to these climate threats. Currently, only 20 per cent of countries are implementing climate change preparedness for WASH risk assessment and management at a significant scale.

Conflict and migration. Water insecurity is both a cause and effect of conflict and migration. Lack of access to water can lead to competition, tensions and violence. Water-related crises have been ranked as the biggest concern for societal risks. When safe drinking water is scarce, families are forced to move. As migrants move to new communities, increasing demand for water, new tensions are created. Conflict can also damage or destroy existing WASH infrastructure.
Accelerated action in WASH financing is needed

While there are signs of hope for WASH financing, more is needed. Governments of 25 countries increased their WASH budgets between 2018/2019 and 2021/2022 at an average rate of 5 per cent per year. However, as outlined in the 2022 UN-Water Global Analysis and Assessment of Sanitation and Drinking Water report, 75 per cent of countries report insufficient WASH funding and all streams of financing need increasing. In fact, total funding to this sector is actually decreasing globally. Official development assistance for water and sanitation decreased by 5.6 per cent between 2017 and 2020 even as climate change and armed conflict further strain and threaten water and sanitation systems.

Although sanitation’s proportion of total WASH funding has been growing in recent years, it still lags behind drinking water. Only 3 per cent of countries have adequate resources to implement policies and plans for rural sanitation and only 7 per cent of countries have the needed resources for urban sanitation.

In low- and middle-income countries, most funding for WASH systems comes from households, not governments. A study of 44 countries shows that 61 per cent of total expenditure on WASH systems comes from households through either tariffs or out-of-pocket expenses. This is especially problematic as households are unable or unwilling to pay for services.

Most WASH-related policies do not address the risks posed by climate change or build the resilience of WASH systems. While over two thirds of countries have measures in WASH policies to reach people affected by climate change, only around one third either monitor progress or have specific funding allocations to these populations.
The impact of unsafe water, sanitation and hygiene on children

The lack of safe drinking water, sanitation and hygiene is destructive to all aspects of a child’s life. It makes fundamental needs – good nutrition, health, education and safety – impossible. Every day, more than 1,000 children under five die from illnesses caused by unsafe water, sanitation and hygiene. Children under five living in conflict areas are more than 20 times more likely to die from diseases related to unsafe WASH systems than from violence.

Diarrhoeal disease, the fourth leading cause of death among children under five globally, is primarily caused by unsafe drinking water and poor sanitation and hygiene. Beyond its fatality, repeated bouts of diarrhoea stop children from absorbing nutrients, worsening malnutrition. Over time, this can result in stunting, which affects nearly one quarter of children under five globally and is damaging to long-term cognitive and physical development.

In addition to its immediate health effects and mortality, lack of safe drinking water, sanitation and hygiene disrupts education, affects livelihoods, and leads to migration, conflict and child labour. When water becomes less accessible, children may have to drop out of school and spend more time collecting water. The burden disproportionality falls on women and girls as they are responsible for water collection in 8 out of 10 households, with implications for safety, school attendance and economic opportunity.

Drought and lack of water resources can limit household income and opportunities for children. For example, agriculture depends on water and predictable rainfall and temperatures, all of which are under threat from climate change. As more areas become water-scarce, children will grow into young people who are forced to leave their communities to look for work.

Benin – A mother at the edge of the well in her village takes the opportunity to do the dishes.
Cholera: a deadly waterborne disease exacerbated by climate change

Cholera, a deadly but preventable bacterial disease, is usually spread through contaminated water and can kill within hours if untreated. Young children, especially those under the age of 5, bear the brunt of the disease. Furthermore, malnourished children are more vulnerable to experiencing severe symptoms and even death due to severe dehydration. Without safe drinking water, sanitation and hygiene, preventing and controlling the transmission of cholera and other waterborne diseases are virtually impossible.

For the millions of children globally already facing comorbidities linked to malnutrition and other diseases, cholera is especially harmful and fatal.

Climate change is exacerbating this deadly disease through the catastrophic consequences of drought, water scarcity, cyclones, flooding and storms. Research has shown that higher temperatures and climate-related shocks will lead to more cholera outbreaks because they cut off access to safe drinking water and sanitation.

Since 2021, cholera outbreaks have occurred in many countries that had not seen it in years. In 2022, there were a record number of large cholera outbreaks driven by droughts, floods and conflict in almost 30 countries ranging from Haiti to Lebanon, Malawi and the Syrian Arab Republic.

Almost all cases of cholera between 2010 and 2021 (97 per cent) were from 31 of the 34 countries with the lowest levels of water and sanitation services. Only three countries with levels of less than 70 per cent for access to basic water services and 55 per cent for basic sanitation coverage did not report cholera cases.

Early detection and a quick response to contain outbreaks are vital. Controlling cholera requires ensuring access to safe drinking water and sanitation, access to cholera vaccines and treatment, surveillance systems to monitor and control its spread, and community engagement to promote safe hygiene and sanitation practices.

Malawi – Eliza Laston receives her vaccine for cholera at Nchalo Assemblies of God outreach as part of a UNICEF cholera vaccine campaign in Chikwawa district, Malawi.
Part 2

The triple burden

Figure 1: Countries with the highest triple burden

<table>
<thead>
<tr>
<th>Country</th>
<th>% of the population with access to at least basic drinking water</th>
<th>% of the population with access to at least basic sanitation</th>
<th>Global rank: under five deaths from unsafe WASH as proportion of child population</th>
<th>CCRI rank: (climate and environmental hazards, out of 163 countries)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benin</td>
<td>65</td>
<td>17</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>47</td>
<td>22</td>
<td>9</td>
<td>25</td>
</tr>
<tr>
<td>Cameroon</td>
<td>66</td>
<td>45</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>Chad</td>
<td>46</td>
<td>12</td>
<td>13</td>
<td>37</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>71</td>
<td>35</td>
<td>12</td>
<td>32</td>
</tr>
<tr>
<td>Guinea</td>
<td>64</td>
<td>30</td>
<td>6</td>
<td>40</td>
</tr>
<tr>
<td>Mali</td>
<td>83</td>
<td>45</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>Niger</td>
<td>47</td>
<td>15</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>Chad</td>
<td>46</td>
<td>12</td>
<td>23</td>
<td>14</td>
</tr>
<tr>
<td>Nigeria</td>
<td>78</td>
<td>43</td>
<td>35</td>
<td>32</td>
</tr>
<tr>
<td>Cameroon</td>
<td>66</td>
<td>45</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>Somalia</td>
<td>56</td>
<td>39</td>
<td>40</td>
<td>38</td>
</tr>
</tbody>
</table>

These 10 countries – Benin, Burkina Faso, Cameroon, Chad, Côte d’Ivoire, Guinea, Mali, Niger, Nigeria and Somalia – are currently off track to meet the SDG target of universal access to basic water and sanitation services by 2030.

These three burdens compound each other, magnifying the detrimental effects on children. Climate-related disasters can damage or strain already-weak water and sanitation systems, further spreading disease and the risk of death. For example, vector-borne diseases and diarrhoeal mortality tend to proliferate with heavier rainfall and flooding. Inadequate water and sanitation systems magnify this effect. Similarly, the lack of proper drainage systems creates the conditions for the proliferation of mosquitos that transmit diseases.

All 10 countries facing this triple burden were classified by OECD as either fragile or extremely fragile in 2022. Many of these 10 countries – particularly those in the Sahel – are also facing armed conflict. The region is one of the most vulnerable in Africa, facing a combination of climate change, conflict, poverty and political instability. Around 5.8 million people are water-insecure in the Sahel region.

And yet, 2 billion people still lack safely managed drinking water, 3.6 billion lack safely managed sanitation, and 2.3 billion lack basic handwashing facilities with soap and water available (JMP, 2021). No region is on track to achieve the SDG targets of universal access to safely managed drinking water and safely managed sanitation services by 2030. We need to quadruple progress in order to achieve SDG global targets by 2030. At the current rates, the world will only reach 81 per cent coverage of safely managed drinking water and only 67 per cent coverage of safely managed sanitation by 2030.

Where is water insecurity most acute? Those in rural areas and in poor communities – the most vulnerable and marginalized – are too often left behind. As of 2020, 1.4 billion people (450 million children) live in areas of high or extremely high-water vulnerability.

The burden of lacking access to at least basic drinking water and sanitation

These countries have less than 50 per cent access to either at least basic drinking water or sanitation services.

Over the past 20 years, focused investment, policy attention and the commitment and work of countless communities and families, have led to considerable improvement in access to safe water globally. Progress is possible. The percentage of households worldwide with access to at least basic drinking water rose from 82 per cent in 2000 to 90 per cent in 2020. Access to at least basic sanitation rose from 56 per cent in 2000 to 78 per cent in 2020.

Children in 10 countries – with a combined child population of 193,961,000 and all in sub-Saharan Africa – face the triple burden of children lacking basic water or sanitation services, the burden of under-five child deaths from WASH-related diseases and climate threats that impact WASH services.
Figure 2: Global progress in at least basic water and sanitation services, 2000–2020

2.a Percentage of the world’s population with access to at least basic drinking water, 2000 to 2020

2.b Percentage of the world’s population with access to at least basic sanitation, 2000 to 2020


Figure 3: Global water vulnerability

Note: Extreme Water Vulnerability is the combination of the highest levels of physical water scarcity risks and lowest levels of drinking water service that affects a given population (surface water, unimproved or limited water service).

Sources: This map was originally published in UNICEF, Reimagining WASH: Water Security for All, 2021. Water stress, interannual variability, seasonal variability, and groundwater table decline were derived from the WRI Aqueduct Water Risk Atlas, drought events derived from the UNEP Global Data Risk Platform, and drinking water service level data were derived from the JMP data set.
The burden of disease

These countries are within the top 20 countries globally with the highest burden of disease due to unsafe WASH (calculated based on the number of child deaths as a proportion of child population).

Among 1.4 million deaths from diseases attributable to lack of safe water, sanitation and basic hygiene every year, almost 400,000 are children under five. This translates to almost 4,000 people dying, more than 1,000 of them children under five, every day. Around 2 out of 5 are concentrated in the highest 10 triple burden countries alone.

These deaths, including from diarrhoeal disease, acute respiratory infection, protein energy malnutrition and soil-transmitted intestinal worms, are preventable with access to safe water, sanitation and hygiene in households, healthcare facilities and schools.

Table 1: Under-five deaths due to inadequate WASH, 2019

<table>
<thead>
<tr>
<th>SDG REGIONS</th>
<th>ACUTE RESPIRATORY INFECTION</th>
<th>DIARRHEAL DISEASE</th>
<th>PROTEIN ENERGY MALNUTRITION</th>
<th>SOIL TRANSMITTED INTESTINAL WORMS</th>
<th>GRAND TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia and New Zealand</td>
<td>5</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>6</td>
</tr>
<tr>
<td>Central and Southern Asia</td>
<td>24,675</td>
<td>72,748</td>
<td>891</td>
<td>96</td>
<td>98,410</td>
</tr>
<tr>
<td>Eastern and South-Eastern Asia</td>
<td>7,500</td>
<td>11,547</td>
<td>113</td>
<td>26</td>
<td>19,186</td>
</tr>
<tr>
<td>Europe and Northern America</td>
<td>332</td>
<td>192</td>
<td>2</td>
<td>-</td>
<td>526</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>2,210</td>
<td>3,435</td>
<td>379</td>
<td>16</td>
<td>6,041</td>
</tr>
<tr>
<td>Northern Africa and Western Asia</td>
<td>4,857</td>
<td>9,898</td>
<td>229</td>
<td>26</td>
<td>15,011</td>
</tr>
<tr>
<td>Oceania</td>
<td>219</td>
<td>419</td>
<td>4</td>
<td>3</td>
<td>645</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>72,549</td>
<td>175,082</td>
<td>6,233</td>
<td>1,111</td>
<td>254,976</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>112,347</strong></td>
<td><strong>273,323</strong></td>
<td><strong>7,853</strong></td>
<td><strong>1,279</strong></td>
<td><strong>394,802</strong></td>
</tr>
</tbody>
</table>

Sources: WHO estimates of burden of disease attributable to unsafe water, sanitation and hygiene (WASH) in 2019 (as of December 2022).
Crisis in the Sahel

The intensifying armed conflict in the central Sahel is aggravating existing acute humanitarian needs. The year 2022 was particularly violent for children in the region, almost certainly the deadliest since armed conflict broke out in northern Mali over a decade ago.

Attacks on water facilities are increasingly being used as a tactic to forcibly displace communities. Water infrastructure such as UNICEF-supported water trucks and water storage facilities have been destroyed. Armed men have threatened women on their way to collect water and some water points have been poisoned with fuel or animal carcasses. For example, 58 water points were attacked in 2022 in Burkina Faso, up from 21 in 2021, and three in 2020. As a result, more than 830,000 people – over half of whom are children – have lost access to safe drinking water in the last year.

This crisis is unfolding in one of the most climate-affected and water-scarce regions on the planet. Temperatures are rising 1.5 times faster than the global average. Water tables have dropped and wells need to be drilled twice as deep as a decade ago. Increasing urbanisation, asphalt and cement surfaces and plastic pollution block water from permeating the soil and affects the water that does infiltrate. The influx of displaced people exerts added pressure, creating tension and protection risks for women and children around water points.

Rainfall has become more erratic and intense, causing floods that reduce crop yields and contaminate already scarce water supplies – conditions that aggravate diseases such as malaria and diarrhoea, which can be over 10 times more lethal among severely malnourished children.

In addition, overcrowded and unsanitary conditions in displacement sites place children at acute risk of the toxic combination of malnutrition and disease.
The burden of climate-related threats

These countries rank within the top 25 per cent of exposure to climate and environmental hazards, shocks and stresses, based on the 2021 CCRI.

Children are the least responsible for climate change and yet bear the greatest burden of its impacts. Over the past several decades, climate change has led to more intense precipitation and flooding, more frequent and severe droughts, accelerated glacial melt, and the deterioration of water quality due to extreme weather. The number of climate- and weather-related disasters has increased almost 35 per cent since the 1990s.

UNICEF’s Children’s Climate Risk Index, CCRI, lists the following as major climate and environmental risk factors for children:

- Water scarcity
- Riverine floods
- Coastal floods
- Tropical cyclones
- Vector-borne diseases
- Heatwaves
- Air pollution
- Soil and water pollution

All these factors have significantly affected access to safe drinking water, sanitation and hygiene.
The global water crisis is one of the greatest risks to society. And climate change, urbanization and increasing competition for water are only exacerbating water insecurity with each passing year. For children, unsafe WASH – combined with climate risks and increasing competition for water resources – is putting their lives at risk today and putting their futures at risk tomorrow.

Although the challenge is great, ensuring that all children have access to safe, sustainable water, sanitation and hygiene is within our reach. Decades of experience have revealed proven solutions to unlock progress – with governments playing a central role. With just seven years left in the SDG period, we must urgently harness and scale up these solutions to protect the human right to safe WASH for every child.

UNICEF is calling on governments and partners to:

1. **Scale up investment in the sector rapidly, including from global climate financing.** Current WASH spending must increase threefold to meet SDG targets 6.1 and 6.2 by 2030, the cost of which is estimated at US$114 billion per year in developing countries.

2. **Strengthen resilience in the WASH sector and communities.** Ensure that all WASH services withstand climate-related events, strengthen the resilience and adaptive capacities of vulnerable communities, and operate using low-carbon energy sources, such as solar power.

3. **Prioritize leaving no one behind.** Focus WASH and climate adaptation policies, programmes and strategies on the poorest, most vulnerable, and marginalized communities, including children, women, displaced populations and persons with disabilities.

4. **Increase effective and accountable coordination and capacities across the humanitarian-development-peace nexus** to consistently provide timely, predictable, and high-quality water and sanitation services, while ensuring a ‘do no harm’ approach.

5. **Implement the UN-Water SDG 6 Global Acceleration Framework and invest in the key accelerators:** good governance and political leadership; effective and accountable coordination and regulation; public finance to unlock household and private investment; capacity development at all levels to sustain and drive progress; reliable data to support decision making and accountability; and innovation to meet emerging challenges.

**Mauritania** – In the Fulani village of Hore Mondji, located in southern Mauritania, on the banks of the Senegal River, a women’s cooperative uses solar energy to operate the borehole that supplies water to the market garden. A project piloted by UNICEF in partnership with local authorities.
UNICEF’s goals, reach and achievements

In all its programming, UNICEF provides direct support to families and communities with WASH services while also working with governments and partners to strengthen systems.

UNICEF set its most ambitious WASH target ever for the 2018–2021 Strategic Plan: to reach 60 million people with safe drinking water sources in their communities through direct support. The target was achieved, an exceptional result given the operational challenges posed by the COVID-19 pandemic. In 2021, UNICEF worked in 128 countries with WASH interventions, more than ever before and more than any other agency.

The ongoing shift to integrating climate resilience into the WASH programme continued with the engagement of 87 countries, technical support for solar-powered water systems and the installation of 1,523 new solar systems in 2021 through direct support.

UNICEF provided gender-segregated sanitation facilities in 21,112 schools and 16,699 health-care facilities with WASH services over the four-year period through direct support.

UNICEF has responded to the unprecedented scale and scope of humanitarian crises through direct relief, and by strengthening sector humanitarian response capacity and coordinating the overall response as lead agency of the global WASH cluster. In 2021, 33.3 million people gained or regained access to water services for drinking and hygiene through UNICEF direct humanitarian relief programmes and 8.4 million to sanitation services. UNICEF also reached 11.6 million children in schools and temporary learning spaces with emergency WASH services.

UNICEF has set an ambitious goal to reach 450 million children and their families (1.42 billion people) living in areas of high or extremely high-water vulnerability with resilient solutions. UNICEF also wants to reach 1 billion people with safely managed sanitation in support of the SDG 6 vision of all children accessing safe and affordable water supply, living in water secure communities and accessing safely managed sanitation.

Madagascar – Masy, 23, collects water. She is 9 months pregnant, the mother of four children, and volunteers as a community worker for “Secaline”. Masy received a washing kit distributed by UNICEF, the kit includes a 20-liter container, a bucket, a pot, water purification products and soap.
Glossary

**Basic sanitation service**: Use of improved facilities that are not shared with other households.

**Basic water service**: Drinking water from an improved source, provided collection time is not more than 30 minutes for a roundtrip including queuing. Improved drinking water sources have the potential to deliver safe water by nature of their design and construction, including piped supplies, boreholes and tube wells, protected dug wells, protected springs, rainwater, water kiosks, and packaged and delivered water.

**Improved sanitation facilities**: Designed to hygienically separate human excreta from human contact, including wet sanitation technologies such as flush and pour flush toilets connected to sewers, septic tanks or pit latrines, and dry sanitation technologies such as dry pit latrines with slabs, ventilated improved pit latrines and composting toilets.

**Safely managed sanitation service**: Use of improved facilities that are not shared with other households and where excreta are safely disposed of in situ or removed and treated offsite.

**Safely managed water service**: Drinking water from an improved water source that is accessible on premises, available when needed and free from faecal and priority chemical contamination.

**Water scarcity**: Water scarcity exists where the demand for water exceeds supply and where available water resources are approaching or have exceeded sustainable limits. Water scarcity can either be physical or economic.

**Water security**: The capacity of a population to safeguard sustainable access to adequate quantities of and acceptable quality water for sustaining livelihoods, human well-being, and socio-economic development, for ensuring protection against waterborne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability. Water insecurity occurs when any or all of these needs cannot be met.
Democratic Republic of the Congo
– UNICEF is helping young people, like Emmanuel Jidisa, a young climate advocate, to protect the future of our planet by increasing their voice on the climate crisis and encouraging their participation in the fight against climate change.
For every child

Whoever she is.
Wherever he lives.
Every child deserves a childhood.
A future.
A fair chance.
That’s why UNICEF is there.
For each and every child.
Working day in and day out.
In more than 190 countries and territories.
Reaching the hardest to reach.
The furthest from help.
The most excluded.
It’s why we stay to the end.
And never give up.