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75

SUMMARY EDITION

# The climate crisis is a child rights crisis

Introducing  
THE CHILDREN'S  
CLIMATE RISK INDEX

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# Acknowledgments

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This summary report presents the Children's Climate Risk Index (CCRI). This is the Beta version of the Index, and will continue to be adjusted, modified and new datasets added, including projection analysis, together with partners, including the Data for Children Collaborative and Save the Children International.

This Index does not include Small Island Developing States (SIDS) that have a land area less than 20,000sq/km due to data availability limitations. Many SIDS face serious and existential threats due to climate change that are not adequately reflected in the data, and not captured appropriately in a multi-hazard index. As such, they have been not been considered in this edition. Future versions of the Index will aim to address the data requirements for these contexts.

*The findings, interpretations and conclusions expressed in this report are those of the authors and do not necessarily reflect the policies or views of UNICEF or the United Nations. The designations and maps used do not reflect a position by UNICEF on the legal status of any country or territory or of its authorities, or the delimitation of any frontiers.*

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## Cover photo

A girl returning home from a temporary shelter after the passage of Hurricane Iota in Nicaragua, November 16, 2020.  
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# Foreword

## Fridays for Future



Three years ago, with a lone protest by a single child, Fridays for Future began. Within months, that lone protester would grow to over a million in more than 120 countries. Young people, from all corners of the globe, uniting in a global call to save the planet, and save their future.

Climate change is the greatest threat facing the world's children and young people. We have known this for some time – based on what science told us, what the stories we heard from around the world have illustrated, and what we have witnessed with our own eyes – but today, we have the first analysis of climate risk from the most important perspective on this crisis – ours.

UNICEF's Children's Climate Risk Index reveals that 1 billion children are at 'extremely high risk' of the impacts of climate change. That is nearly half of all children. And it is happening today.

Children bear the greatest burden of climate change. Not only are they more vulnerable than adults to the extreme weather, toxic hazards and diseases it causes, but the planet is becoming a more dangerous place to live.

Increasingly catastrophic droughts, fires and storms are forecast to become even worse as our planet continues to warm. Important food and water systems will fail and entire cities are expected to succumb to destructive floods.

Climate change is the greatest threat facing the world's children and young people. And so we too are rising.

In Bangladesh, exposure to cyclones, droughts, floods, salinity and river erosion moved Tahsin to action. He is raising awareness of waterways choked by plastic waste and dangerous erosion at river edges.

In the Philippines, Mitzi is leading youth in the fight for climate justice. Recently, she spent two dark days in a house without power separated from her family during a typhoon – not knowing whether her home had been consumed by the floods, or if her mother was safe.

In Zimbabwe, Nkosi wants to know how he can be expected to attend school "under a scorching sun". He has been a vocal climate activist for years but fears his efforts might be in vain.

We all share this fear. Governments said they would protect us, but they are not doing nearly enough to stop climate change from devastating our lives and our futures.

In 1989, virtually every country in the world agreed children have rights to a clean environment to live in, clean air to breathe, water to drink and food to eat. Children also have rights to learn, relax and play. But with their lack of action on climate change, world leaders are failing this promise.

Our futures are being destroyed, our rights violated, and our pleas ignored. Instead of going to school or living in a safe home, children are enduring famine, conflict and deadly diseases due to climate and environmental shocks. These shocks are propelling the world's youngest, poorest and most vulnerable children further into poverty, making it harder for them to recover the next time a cyclone hits, or a wildfire sparks.

The Children's Climate Risk Index ranks countries based on how vulnerable children are to environmental stresses and extreme weather events. It finds children in the Central African Republic, Chad, Nigeria, Guinea, and Guinea-Bissau are the most at risk.

And yet these countries are among those least responsible for creating the problem, with the 33 extremely high-risk countries collectively emitting just 9 per cent of global CO2 emissions. In contrast, the 10 highest emitting countries collectively account for nearly 70 per cent of global emissions. Only one of these countries is ranked as extremely high-risk in the index.

We cannot allow this injustice to continue. It is immoral that the countries that have done the least are suffering first and worst.

Governments and businesses urgently need to work to tackle the root causes of climate change by reducing greenhouse gas emissions in line with the Paris Agreement.

This report comes ahead of the November 2021 United Nations Climate Change Conference in Glasgow. There is still time for countries to commit to preventing the worst, including setting the appropriate carbon budgets to meet Paris targets, and ultimately taking the drastic action required to shift the economy away from fossil fuels.

While we do that, we must also find solutions to build resilience and help those already in trouble. This crisis is happening now.

We will strike again and again until decision-makers change the course of humanity. We have a duty to urgently raise awareness and demand action. What began on a Friday three years ago, has continued every Friday since, including today. We have a duty to each other and to the children that are too small to hold a pen or a microphone, but that will experience even greater challenges than we are. Movements of young climate activists will continue to rise, continue to grow and continue to fight for what is right because we have no other choice.

We must acknowledge where we stand, treat climate change like the crisis it is and act with the urgency required to ensure today's children inherit a liveable planet.

Signed,

***Adriana Calderón, Mexico,  
Farzana Faruk Jhumu, Bangladesh,  
Eric Njuguna, Kenya,  
Greta Thunberg, Sweden.***

**FRIDAYS FOR FUTURE**

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# Foreword

**UNICEF Executive Director  
Henrietta Fore**

The climate crisis is a child rights crisis. Recent record heat waves, wildfires and flooding in many countries portend a challenging 'new normal'. The impacts of climate change are clear. So are the solutions. It is unconscionable that today's children and young people face an uncertain future.

Around the world, through protests, social media activity and community and civic engagement, children and young people are loud and clear in demanding change. The old ways of doing things are not good enough.

This report provides the first comprehensive view of children's exposure and vulnerability to the impacts of climate change through the Children's Climate Risk Index (CCRI).

It is already clear that children are more vulnerable to climate and environmental shocks than adults. However, this report examines for the first time exactly how many children live in areas that experience multiple, overlapping climate and environmental risks that trigger, reinforce and magnify each other combined with data on the availability and quality of essential services such as healthcare, education and water and sanitation to give a true insight into the impact of the climate crisis on children.

Almost every child on earth is exposed to at least one climate and environmental hazard, shock or stress such as heatwaves, cyclones, air pollution, flooding and water scarcity. But a record-breaking 850 million – approximately one-third of all children – are exposed to four or more stresses, creating incredibly challenging environments for children to live, play and thrive.

Globally, approximately 1 billion children – nearly half of the world's children – live in countries that are at an 'extremely high-risk' from the impacts of climate change, according to the CCRI. These children face a deadly combination of exposure to multiple shocks with high vulnerability resulting from a lack of essential services. The survival of these children is at imminent threat from the impacts of climate change.

Addressing the climate crisis requires every part of society to act. Governments need to ensure that environmental policies are child-sensitive. Businesses must ensure their practices are protective of the natural environment on which children depend. Greenhouse gas emissions and environmental pollutants must be reduced dramatically. Services for children need to incorporate climate resilience and environmental

sustainability. Schools need to be educating for green skills. And children and young people need to be recognized and listened to as agents of change.

In 2022, UNICEF will embark upon its next five-year Strategic Plan, which will guide all our work in over 190 countries and territories. In consultations with over 200,000 young people while developing the priorities and processes that UNICEF will focus on into the next decade, young people boldly demanded more urgent action around climate change. As a young person in Barbados said, “Even though the older [generation] may have caused this to happen, we are the ones at risk, we have to step up. We deserve the same opportunities as the person who lived before us to breathe fresh air.”

While the outlook is very concerning, there is room for action and optimism. As this report emphasizes, there are a range of solutions in front of us. Each solution can help prioritize action for those most at risk. Ultimately, we can ensure today’s children inherit a liveable planet. Every action we take now can leave children a step ahead to prevent worse challenges in the future. As we commemorate UNICEF’s 75th year, let us collectively reimagine an environment fit for every child together.

Every child deserves a liveable planet.

**Henrietta Fore**  
**UNICEF Executive Director**



**Bolivia, 2020**

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Burundi, 2021  
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# Summary Report

**The climate crisis is the defining human and child’s rights challenge of this generation, and is already having a devastating impact on the well-being of children globally. Understanding where and how children are uniquely vulnerable to this crisis is crucial in responding to it. The Children’s Climate Risk Index provides the first comprehensive view of children’s exposure and vulnerability to the impacts of climate change to help prioritize action for those most at risk and ultimately ensure today’s children inherit a liveable planet.**

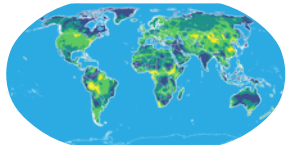
**We are up against, and crossing, key planetary boundaries.**

We are crossing key boundaries in the Earth’s natural system, including climate change, biodiversity loss, and increasing levels of pollution in the air, soil, water and oceans. Climate and environmental hazards, shocks and stresses are already having devastating impacts on the well-being of children globally. As these boundaries are breached, so too is the delicate natural balance that human civilization has depended upon to grow and thrive. The world’s children can no longer count on these conditions, and must make their way in a world that will become far more dangerous and uncertain in the years to come.

**And as a result, the climate crisis is creating a child’s rights crisis.** It is creating a water crisis, a health crisis, an education crisis, a protection crisis and a participation crisis. It is threatening children’s very survival. In all these ways, it is infringing on children’s rights – as outlined in the United Nations Convention on the Rights of the Child.

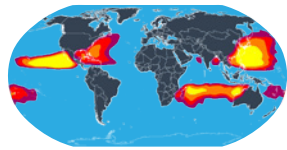
Unfortunately, this is only the beginning. According to the IPCC, global greenhouse gas emissions need to be halved by 2030 and cut to zero by 2050 to avoid the worse impacts, but most countries are not on track to meet these targets. Only with such truly transformative action will we bequeath children a liveable planet.

**Utilizing high-resolution geographical data, this report provides new global evidence on how many children are currently exposed to a variety of climate and environmental hazards, shocks and stresses**



MAP 3

**820 million children** (over one third of children globally) are currently highly exposed to **heatwaves**. This is likely to worsen as global average temperatures increase and weather patterns become more erratic. 2020 was tied for the hottest year on record.



MAP 13

**400 million children** (nearly 1 in 6 children globally) are currently highly exposed to **cyclones**. This is likely to get worse as high-intensity cyclones (i.e categories 4 and 5) increase in frequency, rainfall intensity grows, and cyclone patterns shift.



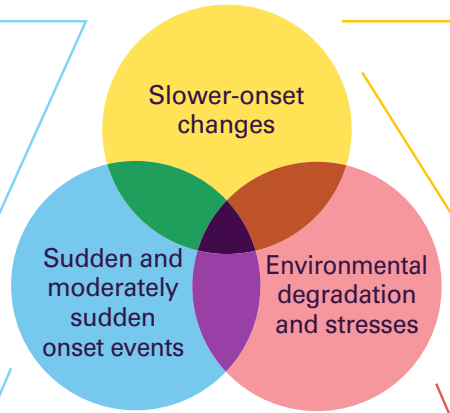
MAP 11

**330 million children** (1 in 7 children globally) are currently highly exposed to **riverine flooding**. This is likely to worsen as glaciers melt, and precipitation increases due to higher water-content in the atmosphere as a result of higher average temperatures.

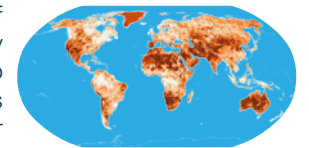


MAP 12

**240 million children** (1 in 10 children globally) are currently highly exposed to **coastal flooding**. This is likely to worsen as sea levels continue to rise, with the effects magnified considerably when combined with storm surges.

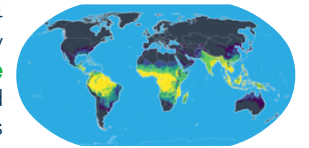


**920 million children** (over one-third of children globally) are currently highly exposed to **water scarcity**. This is likely to worsen as climate change increases frequency and severity of droughts, water stress, seasonal and interannual variability, contamination – and demand and competition for water increases, resulting in depletion of available water resources.



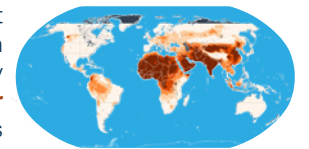
MAP 5

**600 million children** (over 1 in 4 children globally) are currently highly exposed to **vector-borne diseases**, such as malaria and dengue, among others. This is likely to worsen as temperature suitability and climatic conditions for mosquitos and pathogens that transmit these diseases spreads.



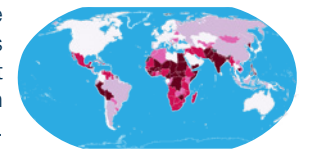
MAP 14

**2 billion children** (almost 90 per cent of children globally) are currently highly exposed to **air pollution** that exceeds 10µg/m3. This is likely to get worse unless there is a reduction in fossil fuel combustion that causes air pollution.



MAP 20

**815 million children** (over one-third of children globally) are currently highly exposed to **lead pollution** due to exposures in contaminated air, water, soil and food. This is likely to get worse without more responsible production, consumption and recycling of lead-containing products.



MAP 21

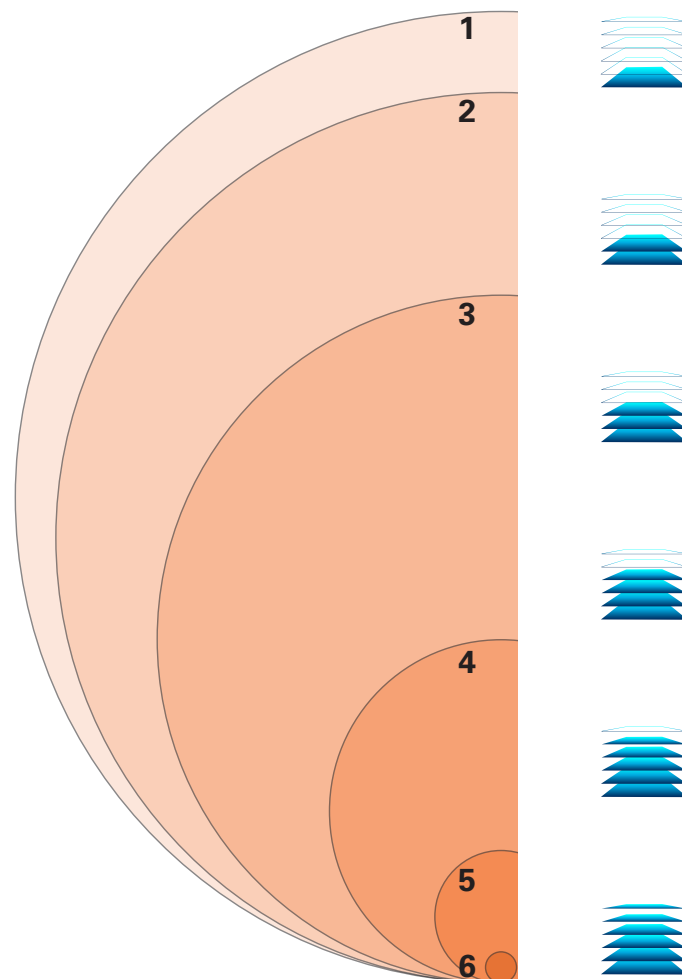
Children are more vulnerable to climate and environmental shocks than adults for a number of reasons:

- They are physically more vulnerable, and less able to withstand and survive shocks such as floods, droughts, severe weather and heatwaves.
- They are physiologically more vulnerable. Toxic substances, such as lead and other forms of pollution, affect children more than adults, even at lower doses of exposure.
- They are more at risk of death compared with adults from diseases that are likely to be exacerbated by climate change, such as malaria and dengue.
- They have their whole life ahead of them – any deprivation as a result of climate and environmental degradation at a young age can result in a lifetime of lost opportunity.

**This report also examines for the first time how many children live in areas that experience multiple, overlapping climate and environmental hazards:**

A particularly concerning aspect of these hazards is that they overlap each other. These climate and environmental hazards, shocks and stresses do not occur in isolation. Droughts, floods and severe weather, coupled with other environmental stresses, compound one another. These hazards can not only exacerbate each other, but also marginalize pockets of society and increase inequality. They also interact with other social, political and health risks, including COVID-19. Overlapping hazards ultimately make certain parts of the world even more precarious and risky places for children – drastically reducing their future potential.

**Figure 1: Overlapping climate and environmental hazards, shocks and stresses.**



**Almost every child on earth**

(>99 per cent) is exposed to **at least 1** of these major climate and environmental hazards, shocks and stresses.

**2.2 billion children** are exposed to **at least 2** of these overlapping climate and environmental hazards, shocks and stresses.

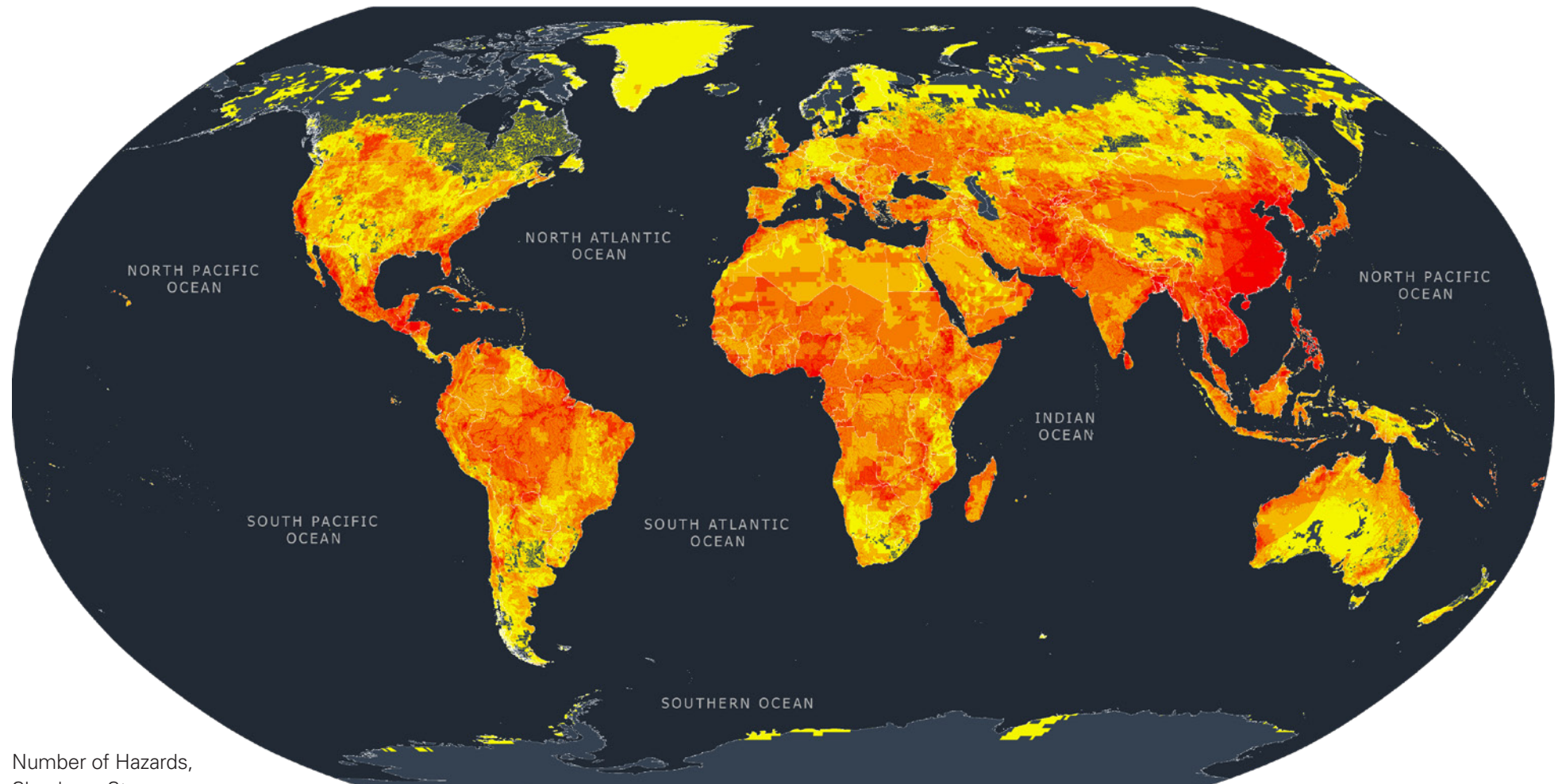
**1.7 billion children** are exposed to **at least 3** of these overlapping climate and environmental hazards, shocks and stresses.

**850 million children** are exposed to **at least 4** of these overlapping climate and environmental hazards, shocks and stresses.

**330 million children** are exposed to **at least 5** of these overlapping climate and environmental hazards, shocks and stresses.

**80 million children** are exposed to **at least 6** of these overlapping climate and environmental hazards, shocks and stresses.

**Map 1:** Overlapping Climate and Environmental Hazards, Shocks and Stresses



Number of Hazards,  
Shocks or Stresses

- Extremely High ( $\geq 5$ )
- High (4)
- Medium-High (3)
- Low-Medium (2)
- Low (1)

Source: This map combines data from: the World Resources Institute (WRI); United Nations Environment (UNEP); The Global Assessment Report, UNDRR; The Center for International Earth Science Information Network (CIESIN); The Malaria Atlas Project; Messina et al.; Kraemer et al.; The Climate Research Unit, University of East Anglia; The Atmospheric Composition Analysis Group; and UN World Population Prospects (2019 revision). See methodology for full details

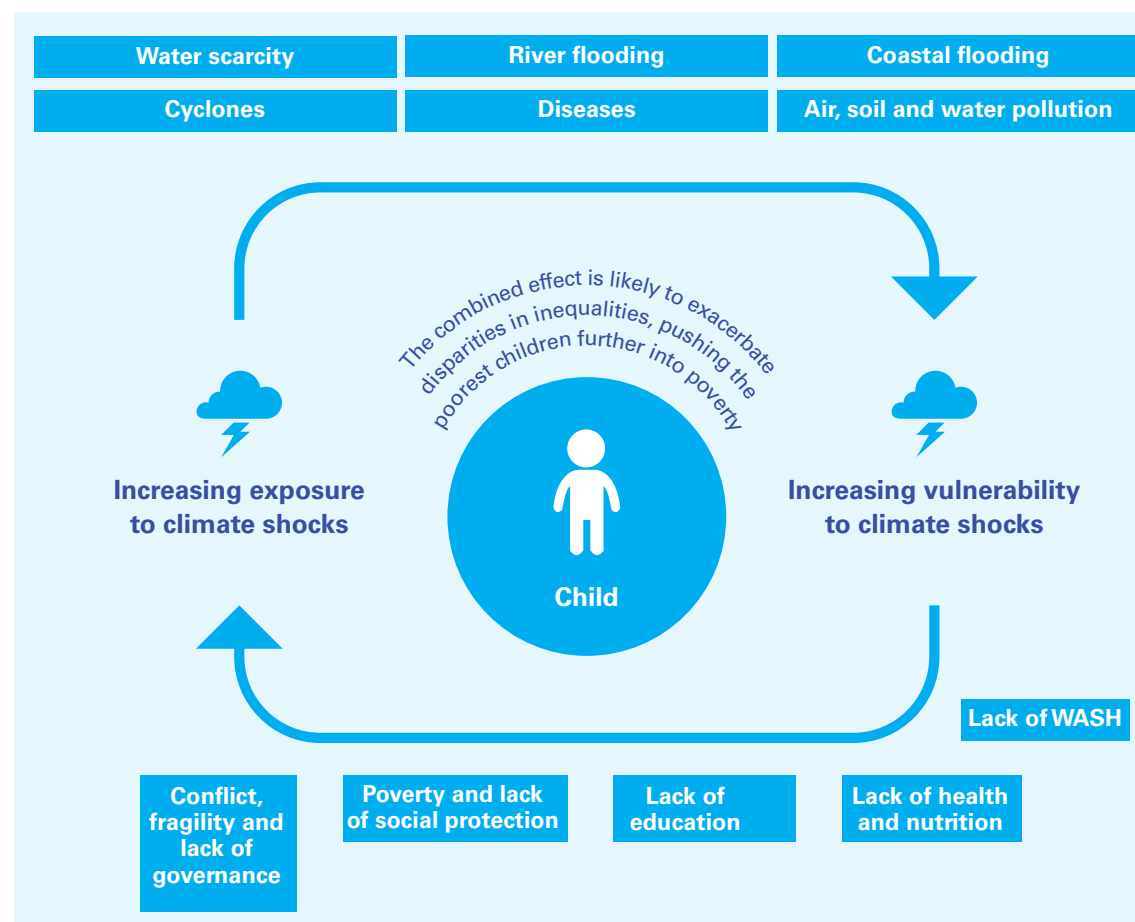
**Children’s lack of access to essential services, such as in health, nutrition, education and social protection, makes them particularly susceptible.**

Not only do climate and environmental hazards negatively affect children’s access to key essential services, but children’s lack of access to key essential services also reduces their resiliency and adaptive capacity, further increasing their vulnerability to climate and environmental hazards. Thus, a vicious cycle is created, pushing the most vulnerable children deeper into poverty at the same time as increasing their risk of experiencing the worst and most life-threatening effects of climate change.

The only long-term solution to the climate crisis is a reduction of emissions to safe levels – reaching net-zero by 2050 in order to stay on course for warming that does not exceed 1.5°C. However, climate dynamics are such that mitigation efforts will take decades to reverse the impacts of climate change, and for the children of today, this will be too late. Unless we invest heavily in adaptation and resilience of social services for the 4.2 billion children born over the next 30 years, they will face increasingly high risks to their survival and well-being. Any adaptations must be based on a careful assessment of both the type and nature of the climate and environmental hazard, shock or stress, as well as the degree to which children are vulnerable. Understanding children’s vulnerability is critical to understanding the full extent to which climate and environmental hazards are likely to impact their well-being, and even their very survival. This report provides a conceptual

framework, a tool and an initial assessment at a global level of children’s exposure and vulnerability to climate and environmental hazards, shocks and stresses – in order to help prioritize action for those most at risk.

**Figure 2: Children caught in a vicious cycle of increasing exposures and vulnerabilities face an increase in their overall level of risk**

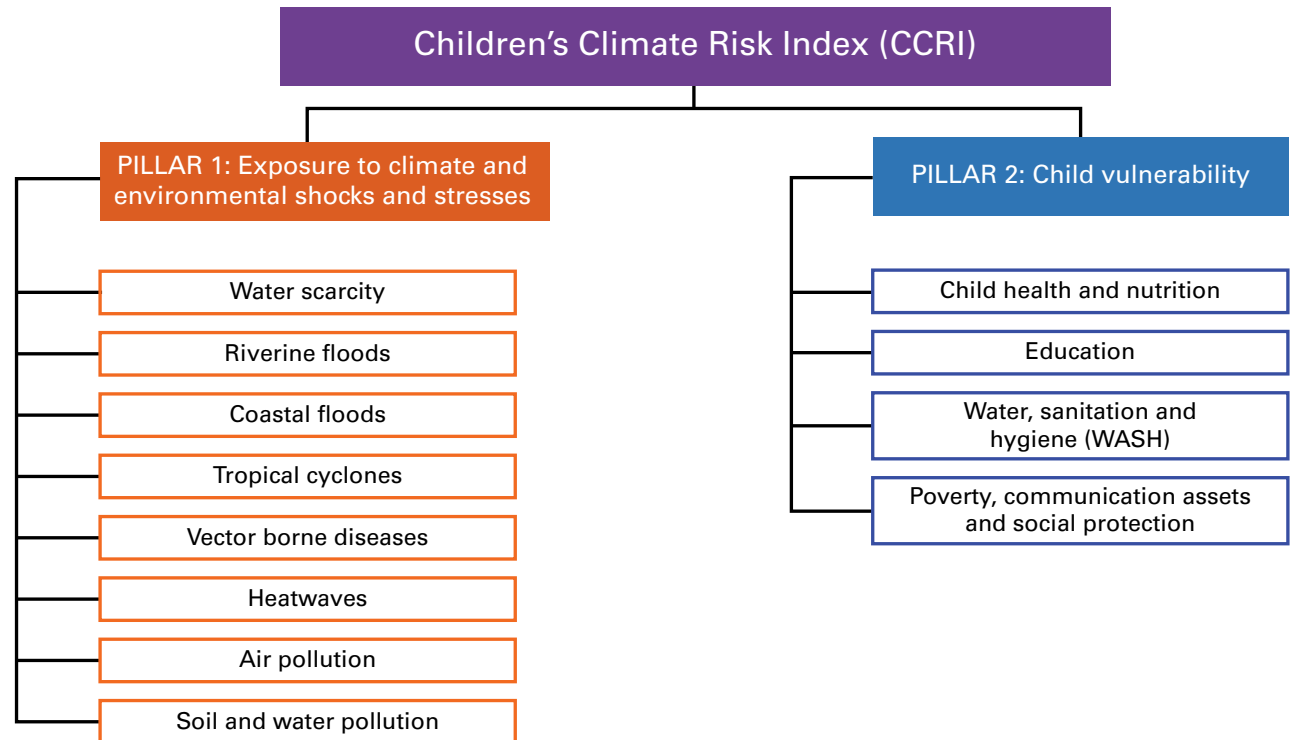


**Introducing the Children's Climate Risk Index (CCRI): This report combines this growing body of new evidence with data on children's vulnerability to introduce the first comprehensive view of climate risk from a child's perspective.**

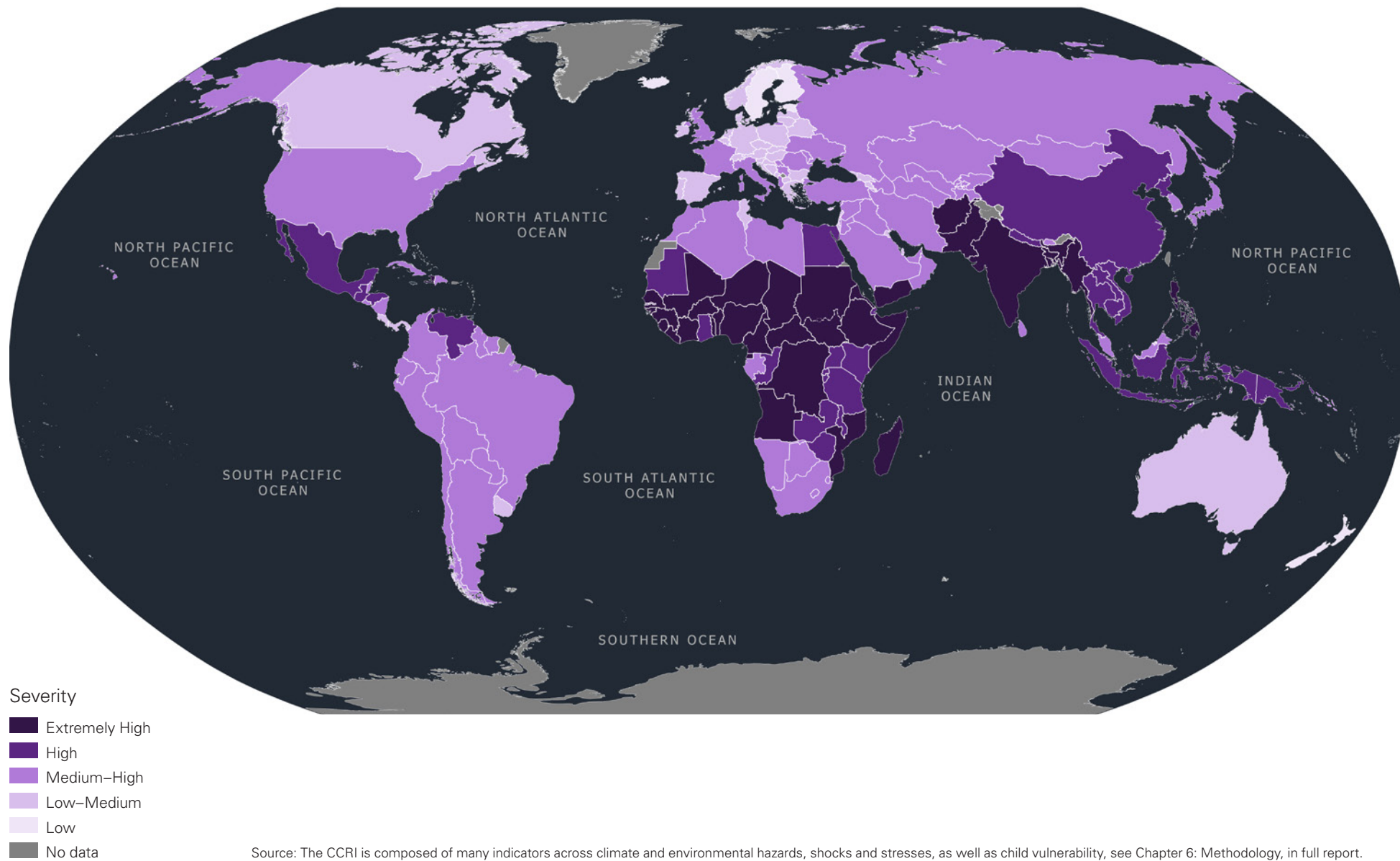
The CCRI is structured according to two central pillars: Pillar 1) Exposure to climate and environmental hazards, shocks and stresses; Pillar 2) Child vulnerability. Across the two categories, the CCRI brings 57 variables together to measure risk across every country and region.

**Globally, approximately 1 billion children (nearly half of the world's children) live in extremely high-risk countries, according to the CCRI.**

**Figure 3:** CCRI conceptual model: Pillars and components



Map 2: The Children’s Climate Risk Index (CCRI)



Source: The CCRI is composed of many indicators across climate and environmental hazards, shocks and stresses, as well as child vulnerability, see Chapter 6: Methodology, in full report.

**Table 1:**

## Countries where children are most at risk

CCRI RANK	COUNTRY	CLIMATE AND ENVIRONMENTAL FACTORS	CHILD VULNERABILITY	CHILDREN'S CLIMATE RISK INDEX
1	Central African Republic	6.7	9.8	8.7
2	Chad	7.0	9.4	8.5
2	Nigeria	8.8	8.1	8.5
4	Guinea	7.7	8.9	8.4
4	Guinea-Bissau	6.4	9.5	8.4
4	Somalia	7.0	9.3	8.4
7	Niger	7.3	8.9	8.2
7	South Sudan	6.8	9.2	8.2
9	Democratic Republic of the Congo	7.2	8.6	8.0
10	Angola	6.5	8.9	7.9
10	Cameroon	7.8	7.9	7.9
10	Madagascar	7.8	7.9	7.9
10	Mozambique	7.5	8.2	7.9
14	Pakistan	8.7	6.4	7.7
15	Afghanistan	7.3	7.9	7.6
15	Bangladesh	9.1	5.1	7.6
15	Benin	7.1	8.1	7.6
15	Burkina Faso	7.3	7.8	7.6
15	Ethiopia	7.1	8.1	7.6
15	Sudan	6.9	8.2	7.6
15	Togo	7.8	7.3	7.6

CCRI RANK	COUNTRY	CLIMATE AND ENVIRONMENTAL FACTORS	CHILD VULNERABILITY	CHILDREN'S CLIMATE RISK INDEX
22	Côte d'Ivoire	7.2	7.7	7.5
22	Equatorial Guinea	5.1	8.9	7.5
22	Liberia	6.8	8.1	7.5
22	Senegal	7.9	7.1	7.5
26	India	9.0	4.6	7.4
26	Sierra Leone	6.9	7.9	7.4
26	Yemen	7.0	7.8	7.4
29	Haiti	6.7	7.8	7.3
29	Mali	7.0	7.5	7.3
31	Eritrea	5.5	8.3	7.1
31	Myanmar	8.3	5.4	7.1
31	Philippines	8.9	4.0	7.1
34	Papua New Guinea	5.1	8.3	7.0
35	Democratic People's Republic of Korea	8.2	5.0	6.9
35	Ghana	8.2	5.0	6.9
37	Gambia	6.5	7.1	6.8
37	Uganda	6.3	7.3	6.8
37	Viet Nam	8.8	3.0	6.8
40	China	9.0	2.0	6.7
40	Lao People's Democratic Republic	7.5	5.8	6.7
40	Malawi	5.7	7.5	6.7
40	Mauritania	6.1	7.2	6.7
40	United Republic of Tanzania	6.2	7.2	6.7
45	Zambia	5.3	7.6	6.6
46	Cambodia	7.2	5.6	6.5
46	Indonesia	8.1	4.2	6.5
48	Congo	6.0	6.8	6.4
49	Kenya	6.2	6.4	6.3
50	Thailand	8.4	2.3	6.2
51	Burundi	4.3	7.4	6.1
51	Nepal	7.5	4.2	6.1



CCRI RANK	COUNTRY	CLIMATE AND ENVIRONMENTAL FACTORS		CHILD VULNERABILITY		CHILDREN'S CLIMATE RISK INDEX	
51	Zimbabwe	5.7	●	6.5	●	6.1	●
54	Guatemala	6.6	●	5.1	●	5.9	●
54	Mexico	7.7	●	3.1	●	5.9	●
56	Djibouti	4.3	●	6.9	●	5.8	●
57	Rwanda	4.5	●	6.7	●	5.7	●
58	Egypt	7.3	●	3	●	5.6	●
59	Honduras	6.5	●	4.3	●	5.5	●
59	Venezuela (Bolivarian Republic of)	6.8	●	3.9	●	5.5	●
61	Colombia	6.9	●	3.4	●	5.4	●
61	Ecuador	6.9	●	3.5	●	5.4	●
61	Iraq	7	●	3.1	●	5.4	●
61	Lesotho	4	●	6.6	●	5.4	●
61	Malaysia	7.2	●	2.8	●	5.4	●
61	Morocco	7	●	3.3	●	5.4	●
61	Sri Lanka	7	●	3.3	●	5.4	●
61	Tajikistan	6.7	●	3.6	●	5.4	●
61	Uzbekistan	7.5	●	2.2	●	5.4	●
70	Brazil	7.3	●	2.4	●	5.3	●
70	Iran (Islamic Republic of)	7.3	●	2.3	●	5.3	●
72	Dominican Republic	6.4	●	3.7	●	5.2	●
72	Eswatini	3.4	●	6.6	●	5.2	●
72	Republic of Korea	7.3	●	1.8	●	5.2	●
72	Solomon Islands	4.1	●	6.1	●	5.2	●
72	South Africa	5.7	●	4.7	●	5.2	●
77	El Salvador	6.3	●	3.5	●	5.1	●
77	Gabon	5.4	●	4.8	●	5.1	●
77	Namibia	5.3	●	4.9	●	5.1	●
80	Bolivia (Plurinational State of)	5.5	●	4.5	●	5	●
80	Peru	6.4	●	3.3	●	5	●
80	Suriname	6.5	●	3.1	●	5	●
80	United States	7.3	●	1.3	●	5	●
84	Albania	6.5	●	2.5	●	4.8	●
84	Botswana	4.5	●	5	●	4.8	●
84	Guyana	6	●	3.3	●	4.8	●

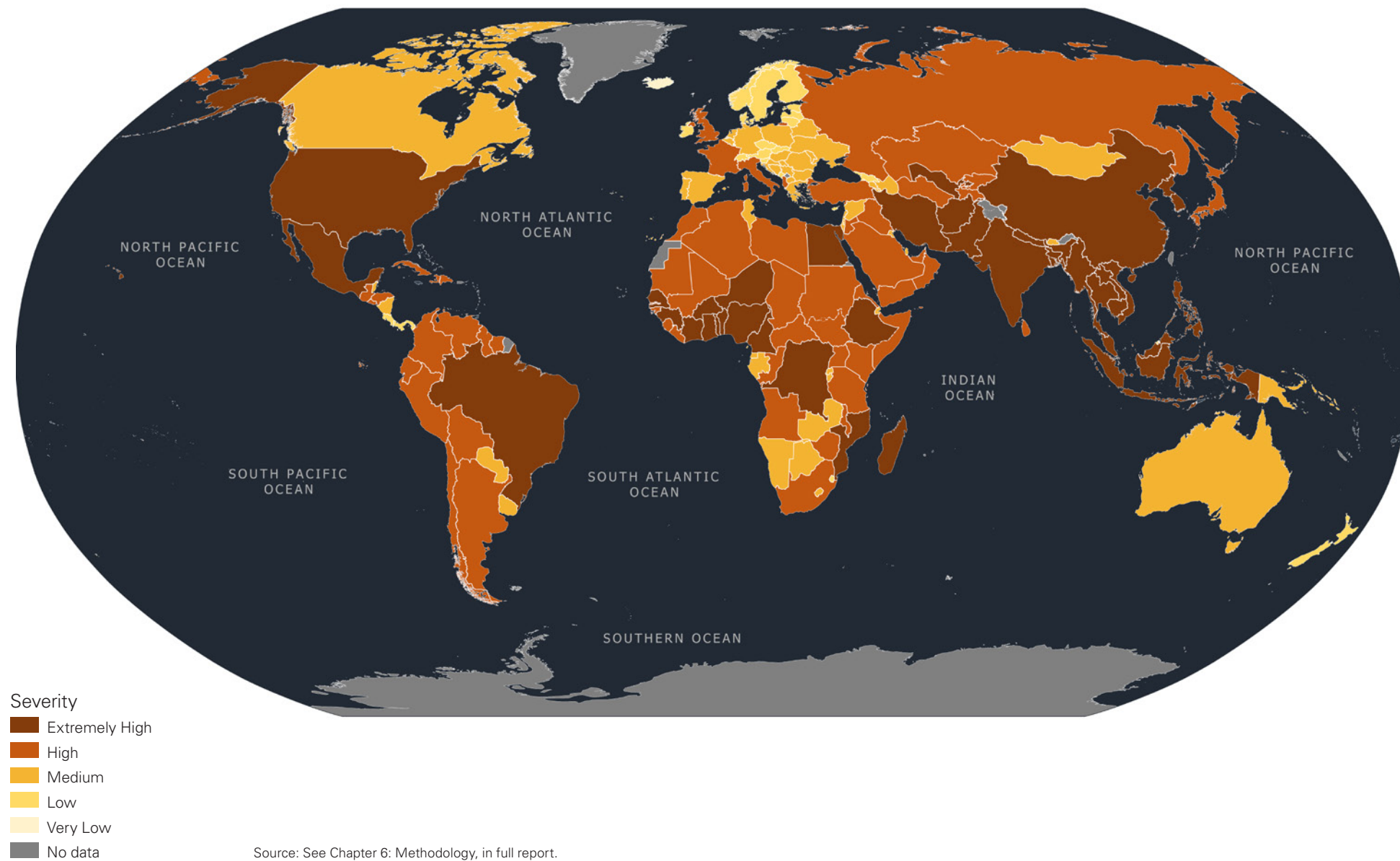
CCRI RANK	COUNTRY	CLIMATE AND ENVIRONMENTAL FACTORS		CHILD VULNERABILITY		CHILDREN'S CLIMATE RISK INDEX	
84	Syrian Arab Republic	5.3	●	4.2	●	4.8	●
88	Cuba	6.4	●	2.4	●	4.7	●
88	Saudi Arabia	6.8	●	1.7	●	4.7	●
90	Algeria	6.2	●	2.6	●	4.6	●
90	Nicaragua	4.6	●	4.5	●	4.6	●
90	Russian Federation	6.5	●	1.8	●	4.6	●
90	Turkmenistan	6.5	●	2.0	●	4.6	●
94	Japan	6.3	●	2.1	●	4.5	●
94	Jordan	5.5	●	3.4	●	4.5	●
94	Kyrgyzstan	6.2	●	2.2	●	4.5	●
97	Libya	5.5	●	3.2	●	4.4	●
97	Oman	6.2	●	1.9	●	4.4	●
97	Turkey	5.8	●	2.7	●	4.4	●
100	United Arab Emirates	6.0	●	2.0	●	4.3	●
101	Mongolia	5.2	●	3.1	●	4.2	●
102	Argentina	5.6	●	2.2	●	4.1	●
102	France	6.1	●	1.2	●	4.1	●
102	Italy	5.9	●	1.8	●	4.1	●
102	Kazakhstan	5.7	●	1.9	●	4.1	●
102	Republic of Moldova	5.2	●	2.7	●	4.1	●
102	Romania	5.4	●	2.5	●	4.1	●
108	Chile	5.8	●	1.5	●	4.0	●
109	Paraguay	4.5	●	3.3	●	3.9	●
109	Serbia	5.2	●	2.2	●	3.9	●
111	Azerbaijan	4.1	●	3.4	●	3.8	●
111	Belize	4.9	●	2.6	●	3.8	●
111	Bhutan	4.3	●	3.3	●	3.8	●
111	State of Palestine	5.1	●	2.3	●	3.8	●
111	Ukraine	5.3	●	2.0	●	3.8	●
111	United Kingdom	5.6	●	1.3	●	3.8	●
117	Armenia	4.4	●	2.9	●	3.7	●
117	Canada	5.4	●	1.5	●	3.7	●
117	Israel	5.3	●	1.6	●	3.7	●
117	Spain	5.3	●	1.7	●	3.7	●

CCRI RANK	COUNTRY	CLIMATE AND ENVIRONMENTAL FACTORS		CHILD VULNERABILITY		CHILDREN'S CLIMATE RISK INDEX	
121	Australia	5.4	●	1.2	●	3.6	●
121	Bulgaria	4.1	●	3.0	●	3.6	●
121	Lebanon	4.4	●	2.7	●	3.6	●
121	Panama	3.7	●	3.4	●	3.6	●
121	Tunisia	4.5	●	2.5	●	3.6	●
126	Poland	5.0	●	1.7	●	3.5	●
127	North Macedonia	4.6	●	2.0	●	3.4	●
128	Greece	4.7	●	1.7	●	3.3	●
128	Kuwait	4.6	●	1.8	●	3.3	●
130	Belarus	4.7	●	1.3	●	3.2	●
130	Croatia	4.0	●	2.4	●	3.2	●
130	Hungary	4.4	●	1.8	●	3.2	●
133	Bahrain	3.9	●	2.3	●	3.1	●
133	Qatar	4.1	●	1.9	●	3.1	●
135	Bosnia and Herzegovina	3.8	●	2.2	●	3.0	●
135	Portugal	4.4	●	1.4	●	3.0	●
135	Uruguay	4.0	●	1.9	●	3.0	●
138	Costa Rica	3.5	●	2.2	●	2.9	●
138	Slovakia	3.7	●	2.0	●	2.9	●
140	Montenegro	3.4	●	1.9	●	2.7	●
140	Netherlands	4.1	●	1.0	●	2.7	●
142	Georgia	2.8	●	2.3	●	2.6	●
142	Germany	3.9	●	1.1	●	2.6	●
142	Latvia	3.3	●	1.9	●	2.6	●
145	Belgium	3.8	●	0.9	●	2.5	●
145	Cyprus	3.5	●	1.4	●	2.5	●
147	Brunei Darussalam	2.9	●	1.8	●	2.4	●
147	Czechia	3.2	●	1.6	●	2.4	●
147	Denmark	3.6	●	0.9	●	2.4	●
147	Lithuania	2.6	●	2.1	●	2.4	●
147	Switzerland	3.3	●	1.3	●	2.4	●
152	Slovenia	3.0	●	1.5	●	2.3	●
153	Liechtenstein	3.3	●	1.0	●	2.2	●
154	Austria	2.6	●	1.5	●	2.1	●

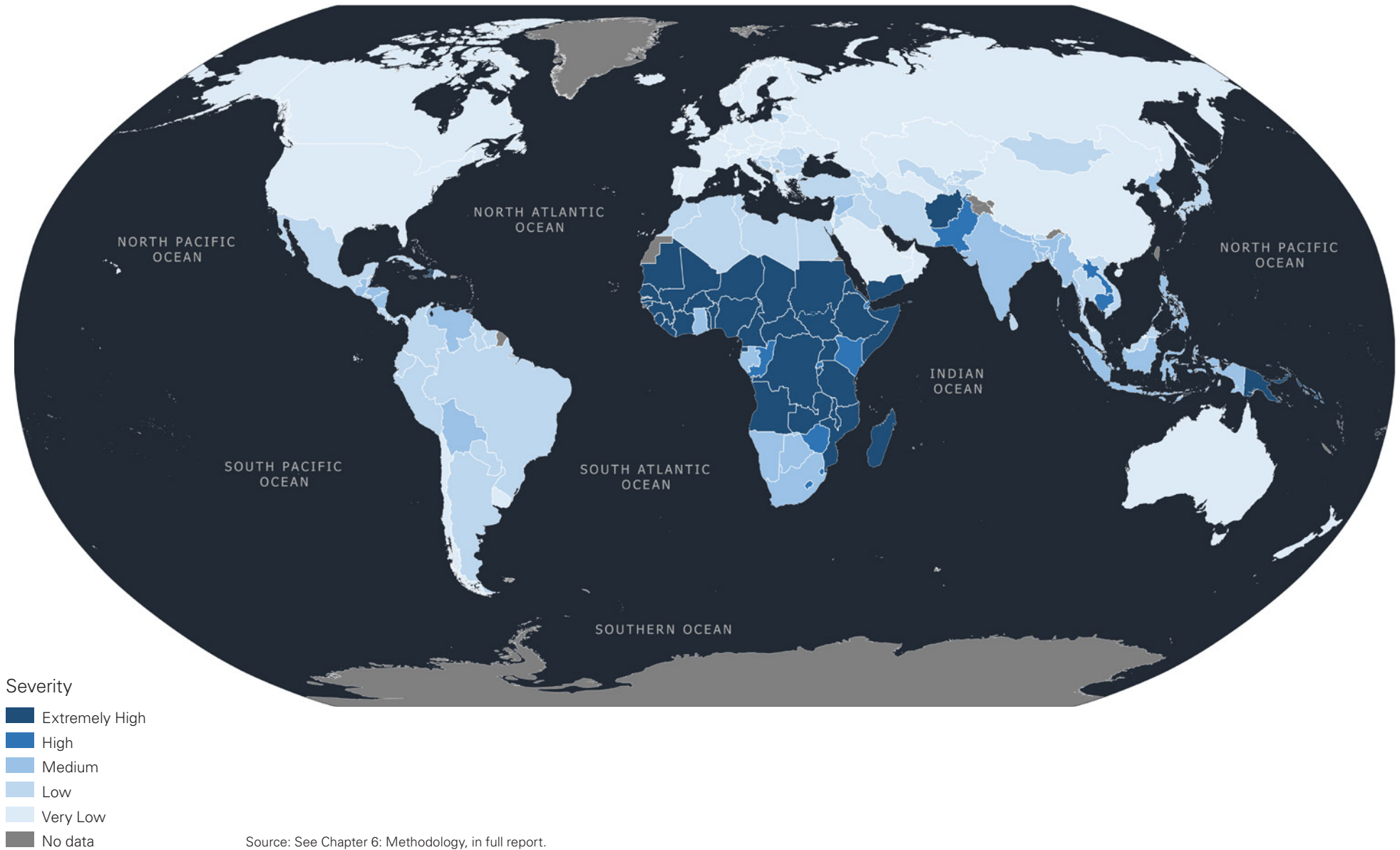
CCRI RANK	COUNTRY	CLIMATE AND ENVIRONMENTAL FACTORS		CHILD VULNERABILITY		CHILDREN'S CLIMATE RISK INDEX	
154	Ireland	2.3	●	1.8	●	2.1	●
154	Malta	2.9	●	1.2	●	2.1	●
154	Norway	3.3	●	0.8	●	2.1	●
158	Sweden	2.8	●	0.7	●	1.8	●
159	Estonia	2.1	●	1.2	●	1.7	●
159	Finland	2.6	●	0.7	●	1.7	●
161	New Zealand	2.4	●	0.8	●	1.6	●
162	Luxembourg	1.1	●	1.8	●	1.5	●
163	Iceland	1.0	●	0.9	●	1.0	●



Map 3: Regions where climate and environmental shocks and stresses are predominant (Pillar 1 of the CCRI)



Map 4: Regions where child vulnerability is predominant (Pillar 2 of the CCRI)





## Youth perspectives: **Nkosi, Zimbabwe**

Each day millions of young people live to face the harsh climate reality. Has anyone ever imagined the impact of this changing climate in 30 years? What the lives of young people cutting across all cultural diversities will be like? **What keeps me on the frontline for climate justice** is the notion that I don't only represent my nation but my entire generation because climate justice concerns our future.

I have dedicated my voice as a voice of the voiceless, to call for immediate action and **there is no better time for acting than now**. Take a closer look at the unpredictability and uncertainty of weather patterns, the rise in sea levels, frequent cyclones, hot temperatures and heatwaves – honestly, how am I expected to attend school under a scorching sun?

Since I was 10, **I have always strived to lift up my voice** just to get even a single moment's attention from a decision-maker. I say: 'Trust me, I live climate change, my friends and family live it too.' 'Someone do something!' Above all I am the one being affected by the changing climate. We are here, we are smart, and we have the solutions. I am young but climate change has put more on my plate; more is expected out of me.

**I imagine a world where every child is included in crucial decision-making.** I would imagine a world where every household uses clean energy. But the painful part of all this is that this might just be imaginations which will never come to pass. If there is a fear in me, it's that I have dedicated my time to advocate for change and yet as I grow older each year nothing convincing gives me hope that the future is green. Someone must do something and that someone is none other than you, I have started the change I want, you can also do something to save the future and there is no better time for doing that than now.

Spain, 2019

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Moreover:



The highest-risk places on Earth contribute least to the causes of climate change – the 33 extremely high-risk countries emit less than 10 per cent of global greenhouse gas emissions. The 10 most extremely high-risk countries emit only 0.5 per cent of global emissions.

Almost all (29 out of 33) of the extremely high-risk countries are also considered fragile contexts.



One quarter (8 out of 33) of extremely high-risk countries have very high levels of displacement – with more than 5 per cent of the population displaced.

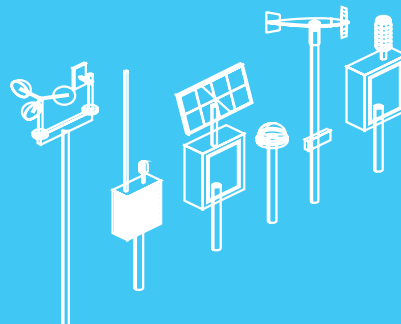
None of the extremely high-risk countries have a high (>80 per cent) score on the adoption and implementation of the national DRR strategies in line with the Sendai Framework.

Only 40 per cent of the extremely high-risk countries have mentioned children and/or youth in their Nationally Determined Contributions (NDCs).



The extremely high-risk countries received only US\$9.8 billion in terms of global financial flows, mostly in the form of ODA, on clean energy research, development and production.

Most (28 out of 33) of the extremely high-risk countries have very low coverage of ground-level air quality monitoring stations – less than 10 per cent of the child population lives within 50 km of a monitoring station.



**The only long-term solution to climate change is reducing greenhouse gas emissions. However, there are also many actions that reduce children's exposure and vulnerabilities that can greatly reduce their overall level of climate risk, for example:**



Investments that improve access to resilient water, sanitation and hygiene (WASH) services can considerably reduce overall climate risk for **415 million children**.\*

Improving access to resilient WASH services could include, for example, comprehensive assessments of water resources, investing in diversifying water sources, using renewable energy, and working with local markets and the private sector to ensure that water and sanitation services have been constructed incorporating climate risks. It can also include increasing water storage facilities at household level, as well as multiple-use water schemes which provide water for domestic and livelihood needs. At a subnational and national level it includes comprehensive management, protection and monitoring of water resources. The resilience of a community is strongly related to the resilience of their WASH services.

\* 'Investments' are modeled as improving component score by 50%. 'Considerably' defined as at least a 0.5 point drop in Children's Climate Risk Index



Investments that improve educational outcomes can considerably reduce overall climate risk for **275 million children**.\*

Investing in sustainability education has a tremendous multiplier effect. Improved education which builds knowledge and skills will contribute to improved sustainability practices and a reduction in emissions at the individual, institutional and communal levels. Improving educational outcomes could include, for example, investing in infrastructure that is resilient to disasters to reduce long-term disruption to children's learning process, as well as solutions that increase access, such as digital learning, as well as equity. Equity in access is important from a gender perspective, from a life cycle perspective (from early childhood through to adolescence), as well as for children with disabilities who are often marginalized. Improving educational outcomes could also mean ensuring quality learning, such as providing safe, friendly environment, qualified and motivated teachers, and instruction in languages students can understand. This means both mainstreaming the latest knowledge and science on climate change into national curricula and also ensuring that children gain the skills they need to be successful in life. These are skills that are relevant for the future of work, including the growing green economy and for livelihoods that are less susceptible to the impacts of a changing climate

and degrading environment. Skills-based learning is also essential to empower children, adolescents and teachers to participate in climate mitigation, adaptation and climate-resilience activities in schools, to encourage children to become part of the solution to climate change.



Investments that improve access to health and nutrition services can considerably reduce overall climate risk for **460 million children**.\*

Improving access to health services could include, for example, investing in quality maternal and newborn care services, sustaining immunization programmes, and supporting preventive, promotive and curative services for pneumonia, diarrhoea, malaria and other child health conditions. It also includes identifying the changing health threats that children face as a result of climate and environmental factors and prioritizing health responses accordingly. It could also include supporting adolescent health and well-being and providing age-specific health information. Moreover, it requires strengthening health systems to deliver integrated services for children.



Investments that improve access to social protection and reducing poverty can considerably reduce overall climate risk for **310 million children**.\*

Improving access to social protection requires working towards universal coverage of child and family benefits as well as ensuring that social protection systems provide connections to other vital services in health, education and nutrition as well as the social welfare workforce. Improving the climate-responsiveness of social protection systems is crucial so they are better able to adjust to the rapidly changing nature of shocks and stresses. This requires understanding the ever-growing impacts of climate change faced by children and their caregivers and adapting social protection responses to be able to rapidly respond. From the perspective of children and their families, this can result in a climate shock being a temporary disruption rather than pushing families into long-term poverty.

\* 'Investments' are modeled as improving component score by 50%. 'Considerably' defined as at least a 0.5 point drop in Children's Climate Risk Index



## Youth perspectives: Mitzi, Philippines

It's not just climate that we're facing, because like the rest of the world, we are in the throes of the COVID-19 pandemic. Looking into both the COVID-19 and climate crisis more closely, it is the marginalized sectors of society that are most impacted, and that is something we must always consider in our fight for climate and social justice. All this has made climate activism even harder. It's difficult to respond to the need of communities impacted when so many of us are not allowed to go outside due to health concerns.



The Philippines' lockdown has made campaigning and organizing challenging. That's the thing about activism – it's not just about the powerful massive strikes and creative actions seen on media. It's not just about going out on the streets and yelling out chants. Most of it is hours and hours of planning, tiring Zoom calls, strengthening the bonds between our members, and tirelessly convincing people of the need to act and demand change even when it all seems hopeless.

The Filipino youth are fighting for climate justice, and we have a global youth movement fighting for the same thing. This gives me so much hope, the knowledge that on almost every continent, we have a friend also calling for urgent climate action. We are fighting with the people, leading the way alongside the most marginalized sectors of society, and history has shown us that as long as we fight for justice and peace, we will always win.

Philippines, 2021

© UNICEF/UN0411242/

**While the outlook is dire, there is room for optimism and hope: we can reimagine an environment fit for children.**

From droughts to flooding and from heatwaves to cyclones, climate change is already taking a toll on children's safety, education and health. Nowhere is this more acute than the countries at the top of the Children's Climate Risk Index (CCRI).

This is a tragic situation, but our actions now can prevent worse challenges in the future.

There are large-scale changes on the horizon will tip the scales in favour of green solutions. The cost of renewable energy continues to fall and it is becoming more reliable. Renewables are expected to account for 95 per cent of the net growth in global power capacity between now and 2025. Technologies for forecasting climate impacts and more effective water management continue to improve. And the financial system is increasingly recognizing the risks that a degrading climate poses and the importance of valuing and promoting resilience.

Climate action can boost economic growth. Recent research has shown that the economic benefits of avoiding climate change impacts such as flooding or storm damage could result in a net increase of 5 per cent of GDP for G20 countries by 2050. Investing in resilient infrastructure has benefit-cost ratios of 4:1; spending US\$800 million on early warning systems in developing countries would not only save lives but also might prevent losses of US\$3-16 billion each year. Therefore, it is essential that countries adopt pro-environmental policies in



their economic agendas, in order to support the transition towards green growth. This includes integrating climate policies such as carbon pricing with supportive economic policies to promote growth focused on low-emission, energy efficient and climate-resilient infrastructure.

Increasing the resilience and delivery of social services is a critical way to improve the chances of the most vulnerable children. Research shows that improving social services like health care, access to water and sanitation, education, nutrition, social safety nets and disaster risk reduction are key ways to build a more resilient and inclusive economy which can mitigate the worst impacts of climate change.

Nature-based solutions are also extremely promising. These help address societal challenges, such as key infrastructure for children, while simultaneously protecting, managing and restoring ecosystems and biodiversity. These solutions address both mitigation and adaptation goals, and have co-benefits that extend across social, economic and environmental dimensions. Examples include wetland restoration, mangroves, marshes and oyster reefs, to help prevent coastal erosion as a result of sea level rise. These can significantly reduce wave impacts, both in terms of height and intensity, during storms. Co-benefits extend to carbon sequestration and water quality improvement and habitat preservation, as well as positive impacts for tourism and recreation. Examples also include green roofs, rain gardens, and urban tree canopies – which serve to reduce the effects of high temperatures and to cool buildings (cutting average temperatures in urban

areas by up over 2oC), reduce and control run-off and flooding during episodes of high precipitation (they capture and release rain more slowly, helping to control flood surges), improve water quality and reduce air pollution.

There is hope because it is not just governments, but also businesses and communities that are leading the way in rethinking their supply chains and operations to reduce greenhouse gas emissions in ways that maximize efficiency as well as their bottom lines. Revolutions in how we produce food and eat are also helping to reduce emissions. Many people are also altering consumption habits to incorporate more plant-based products, not only to improve health but also because of the positive impact on the environment compared with diets that include a lot of meat and dairy.

**One of the biggest reasons for hope is the power of children and young people.** In recent years, children and young people have taken to the streets to demand action on climate change, and throughout the COVID-19 pandemic they have continued their protest online. They have risen to the challenge, demanding that the world recognize that climate change is now the defining human rights challenge of this generation. They have revealed the depth of frustration that they feel at this intergenerational form of injustice, as well as their courage and willingness to challenge the status quo, and their role as key stakeholders in addressing the climate crisis.

Children are not afraid – and nor should they be – to demand that adults do everything they can to protect their future home. However, while

these children and young people may be the future leaders and innovators who will do what is necessary to protect the planet, it might be too late. What we do now is imperative to at least prevent their future jobs from being impossible and give children the best chance they can get immediately.



Nicaragua, 2020

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**Listening and responding to ALL children and young people's perspectives on climate change is critical.** Decision-makers need to work harder to incorporate the views and experiences of children and young people in the design and content of climate policies and related processes. Not doing so not only undermines their rights to be heard and participate, but also the efficacy, strength and power of the policies and the response to climate change itself. If children and young people are heard, policies will change. They will change not only in the scope of their ambition, but also in the nature of their focus. They will better address children's needs, as well as aspirations. Children's voice and agency is critical to their potential capacity to respond and adapt to the impacts of climate change. Children's voices need to be heard and they should be provided with the resources they need to tackle climate change in the future – they cannot be starved of future resources due to our choices today.

Decision-makers need to respond to children and young people's concerns – not by paying lip service, or through tokenistic engagements, but with the scale and force that is commensurate with the magnitude of the issue at hand. Responding appropriately to climate change will require big decisions and changes to our entire economic system – it requires addressing how progress is measured and how stakeholders are held accountable. It will require bequeathing to children and young people a liveable planet together with an economic model that is sustainable.

**COVID-19 has added a new dimension to this challenge, but the recovery process is also an opportunity to make the changes that are necessary.**

COVID-19 has revealed the depth of what can go wrong if we do not listen to science and act rapidly in the face of a global crisis. It has laid bare the inequality that cuts across and within countries – the most vulnerable are often propelled further into poverty due to multiple risk factors, including poor access to vaccines, creating vicious cycles that are difficult to escape.

But this crisis is also presenting us with an opportunity to reimagine a world fit for children. It has taught us that we need to better understand both the scale and scope of children's vulnerabilities in order to come up with solutions that make sense and can be scaled up in a variety of contexts – and where the impacts are very heterogeneous. We can harness this chance, while responding to and recovering from COVID-19, to also address climate change challenges that have been too often ignored – because for children, going back to the old normal is not good enough.

Achieving an environment fit for children will require a whole-of-society response:

- Increase investment in climate adaptation and resilience in key services for children. To protect children, communities and the most vulnerable from the worst impacts of the already changing climate, critical services must be adapted, including water, sanitation and hygiene systems, health and education services.

- Reduce greenhouse gas emissions. To avert the worst impacts of the climate crisis, comprehensive and urgent action is required. Countries must cut their emissions by at least 45% (compared to 2010 levels) by 2030 to keep warming to no more than 1.5 degrees Celsius.
- Provide children with climate education and greens skills, critical for their adaptation to and preparation for the effects of climate change. Children and young people will face the full devastating consequences of the climate crisis and water insecurity, yet they are the least responsible. We have a duty to all young people and future generations.
- Include young people in all national, regional and international climate negotiations and decisions, including at COP26. Children and young people must be included in all climate-related decision making.
- Ensure the recovery from the COVID-19 pandemic is green, low-carbon and inclusive, so that the capacity of future generations to address and respond to the climate crisis is not compromised.

To accelerate climate and environmental action we need to focus on addressing the needs of children most at risk from climate change. It is time we provide all children and young people the resources they need and empower them as agents of change – to give them the best possible chance to address a crisis that we have bestowed upon them.

**Every child deserves a liveable planet.**



## Youth perspectives: Taasin, Bangladesh

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As a little boy, I used to visit my grandfather's home in a rural setting near a river. I felt that the river had been expanding day by day. My little mind started to take in how the people of the river erosion areas are surviving due to the impact of climate change. Then one day I read an article in a newspaper about the harmful aspects of climate change. This made me worried.

When I was 12, I started to publish a monthly magazine for children called Lal Sabuj. There, children of different ages started sending their problems and solutions in the form of reports or creative articles. At the beginning of each month, they would wait to collect the new copy of Lal Sabuj. Their interest inspired me.

In 2015, I established a youth organization called Lal Sabuj Society. Now I am creating opportunities for others, especially children at risk from the impacts of climate change in coastal areas, to practise journalism. In this way, they are able to present their situation directly to the world. Many of them are grown up and are interested in working in the mainstream media.

There are now 400 children and youth across Bangladesh who are working with me on climate change. We clean up public places like canals and tourist spots and separate the recyclable plastics, which we then sell at recycling centres. The money we get from this we spend on planting trees. We also try to inspire people to recycle plastics, for example through online competitions with rewards.

We need young activists to make the world more beautiful. Get involved and take responsibility as much as possible. Participate in the movement that is taking place in your country on climate change or any other issue. Never think that you are too young – look at Greta's example!

The role of youth is most important for the present and future world. I would say to all young people, start taking action from your place right now. It's our time!



Bangladesh, 2020

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