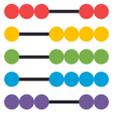




CHILDREN AT RISK:

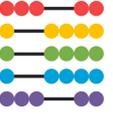
DEVELOPING A GLOBAL CHILDREN'S CLIMATE RISK INDEX (CCRI)

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KEY MESSAGES

- Climate risk for children is **significantly different** from that of the broader community
- Children in **Sub-Saharan Africa** and **South Asia** are most at risk from climate change in 2020
- We need both exposure to hazard and the **specific vulnerability of children** to effectively represent risk
- **Globally, approximately 1 billion children** (nearly half of the world's children) live in extremely high-risk countries
- **Almost every child on earth** (>99%) lives in an area that experiences at least one climate and environmental shocks, stress or hazard
- Many children are exposed to multiple overlapping climate hazards - up to **850 million children** experience at least four climate and environmental shocks, stresses or hazards
- **Poverty underpins vulnerability**: Across the world, around 1.2 billion children are poor and 360 million live in extreme poverty, lacking access to necessities such as basic education, nutrition, health, housing and Water, Sanitation and Hygiene (WASH). This includes 1 in 7 children in the developed world
- Children need effective representation and intervention as they have **little or no agency**
- Little is known about how various multi-levelled individual, structural, cultural and institutional and geographic factors intersect to **influence the differentiated lived-experience of climate risk in children**
- Children become **powerful agents** when engaged as valued partners in creating new sustainable futures
- **Adults need to change their ways of responding** to children and carrying out their protector and provider roles for their agency to be acknowledged and implemented



INTRODUCTION TO THE CHILDREN'S CLIMATE RISK INDEX (CCRI)

The Children's Climate Risk Index (CCRI) is a multi-dimensional child risk index based upon equally weighted global, widely available data sets covering both hazards and child vulnerabilities to those hazards. The CCRI reports as a global map with a single CCRI value for each country. According to the CCRI **approximately 1 billion children – nearly half of the world's 2.2 billion children – live in countries that are at an 'extremely high-risk' from the impacts of climate change.** These children face a deadly combination of exposure to multiple hazards and considerable risks linked to high vulnerability resulting from a lack of essential services, socio-economic resources, supportive policies and engagement in government structures. **The survival of these children is at imminent threat from the impacts of climate change.**

The CCRI is developed in recognition of the **unique experience of children under a changing climate.** The CCRI uses global data sources, including those from the World Resources Institute and World Bank, among others, in an attempt to identify the risk of climate impacts specifically on children. Children have limited resources and are particularly sensitive to diseases, malnutrition, and disasters, and can also become subject to the indirect effects of climate change, such as migration and forced displacement.

As well as producing global maps (UNICEF, 2021), this work will also account for uncertainties in the future emission pathways by evaluating the CCRI following the different climate projections along different future possibilities.

The conceptualisation of risk within climate and climate change combines our understanding of the probability of a hazardous event occurring, with an assessment of its impact on populations of varying vulnerability to that specific hazard. The risk framework identifies the relationship between exposure to hazard, the vulnerability of the people who are exposed to the hazard, and the steps taken at individual and societal levels to mitigate these by developing adaptive capacity, resilience or sustainability.

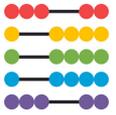
A child who is poor and lacks access to social protection is more vulnerable to climate and environmental shocks and stresses.

These factors combine into an assessment of Risk (IPCC, 2014). This approach provides a viable working definition where vulnerability needs to be defined in terms of a specific hazard and exposure to diverse vulnerabilities. Thus, for any one particular place and time it is possible to define a risk and develop a risk map. As such, risk can vary both in time and in space. Hazardous events associated with climate change can be both direct, as in flood or drought destroying natural resources, property, livelihoods and lives, or indirect as in changing growing conditions of crops which alters employment opportunities.

While indices of climate and environmental risks are not new, **the CCRI incorporates more child-specific dimensions** of vulnerability, including child health, education, nutrition, WASH (Water, Sanitation and Hygiene), social protection and child engagement in decision-making about their futures as endorsed in the United Nations Convention on the Rights of the Child (CRC).

Finally, the CCRI is not restricted to climate hazards, but takes a holistic look at the broader environmental issues that children face – such as air pollution or exposure to other toxic stresses and disease. This is important because broader environmental hazards, including the institutional environment, covering socio-economic and other variables, often also have much more tangible and direct effects on children, thus increasing the set of factors that can have compounding effects on children's vulnerability and exacerbating the overall risk from climate change.





BUILDING THE CCRI FOR 2020

The CCRI is a composite index that helps to explain and measure the likelihood of climate, environmental and socio-economic impacts of climate change.

The CCRI seeks to:

- Identify which countries or areas are at risk of deepening child deprivations and humanitarian situations affecting children as a result of their exposure to climate, environmental and socio-economic institutional shocks or stresses
- Understand the underlying factors that could contribute to these risks

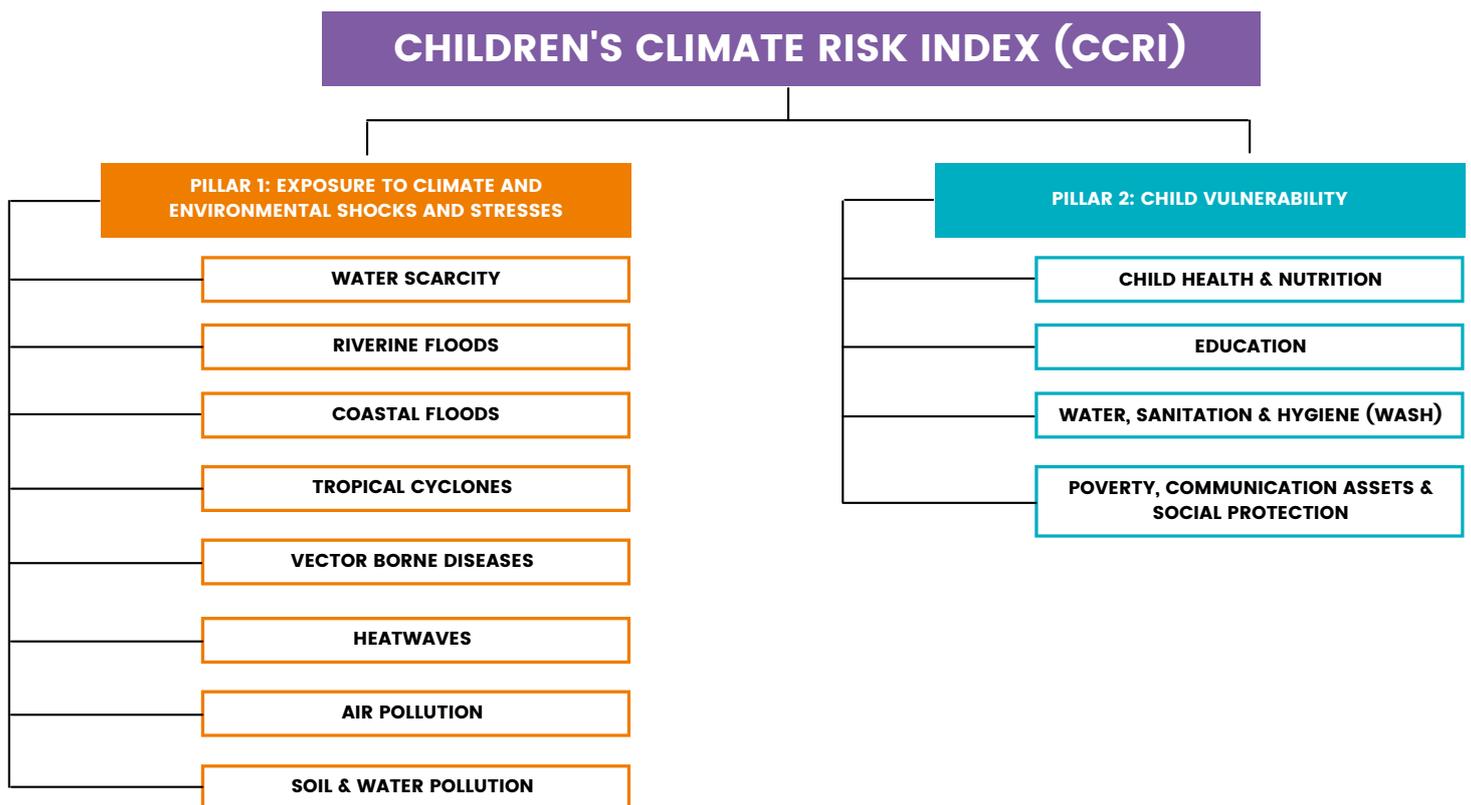
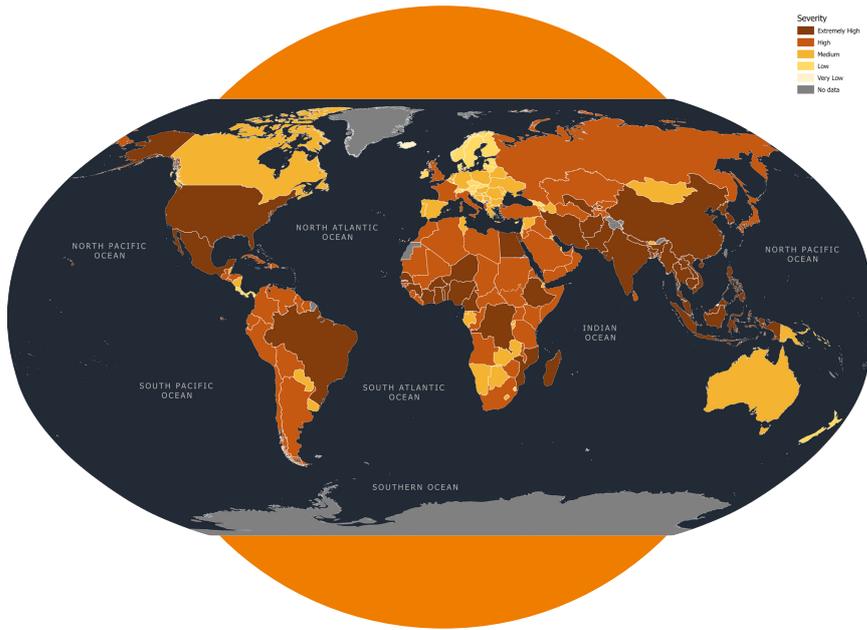
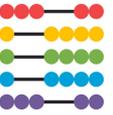


FIGURE 1.

The CCRI composite index is an equally weighted multi-dimensional model. The model is built from two pillars: pillar 1 covers hazards derived from climate change and pillar 2 is concerned with the vulnerability of children to these hazards. The index aims to capture the exposure of children to multiple climate, environmental and socio-economic shocks and stresses in the context of child vulnerability. (UNICEF, 2021)



PILLAR 1: OVERLAPPING CLIMATE AND ENVIRONMENTAL HAZARDS, SHOCKS AND STRESSES

FIGURE 2.

Pillar 1 examines climate and environmental hazards, shocks and stresses. It captures a range of climate and environmental hazards, shocks and stresses that are currently monitored and recorded. It is important to note that these are current hazards, shocks and stresses, and not future projections.

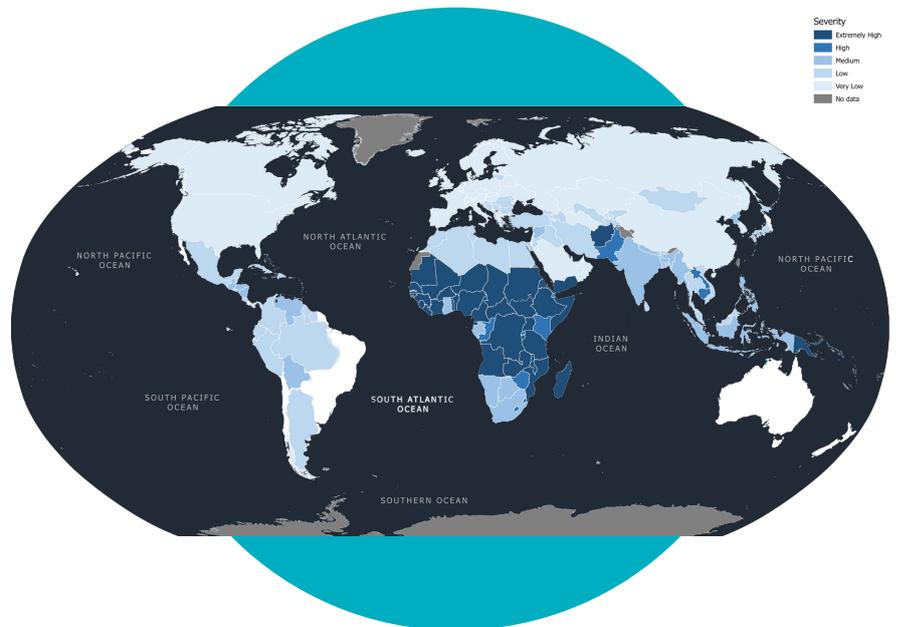
(UNICEF, 2021)

PILLAR 2: CHILD VULNERABILITY

FIGURE 3.

Pillar 2 examines child vulnerability and coping capacity, as reflected in children's rights outlined in the Convention on the Rights of the Child. It captures child-specific dimensions that make children particularly susceptible to shock or stress (as indicated in Pillar 1). It also includes variables that relate to community, national or institutional abilities (strengths, performance) to manage the impacts of shocks and stresses (including capacity to deliver services).

(UNICEF, 2021)

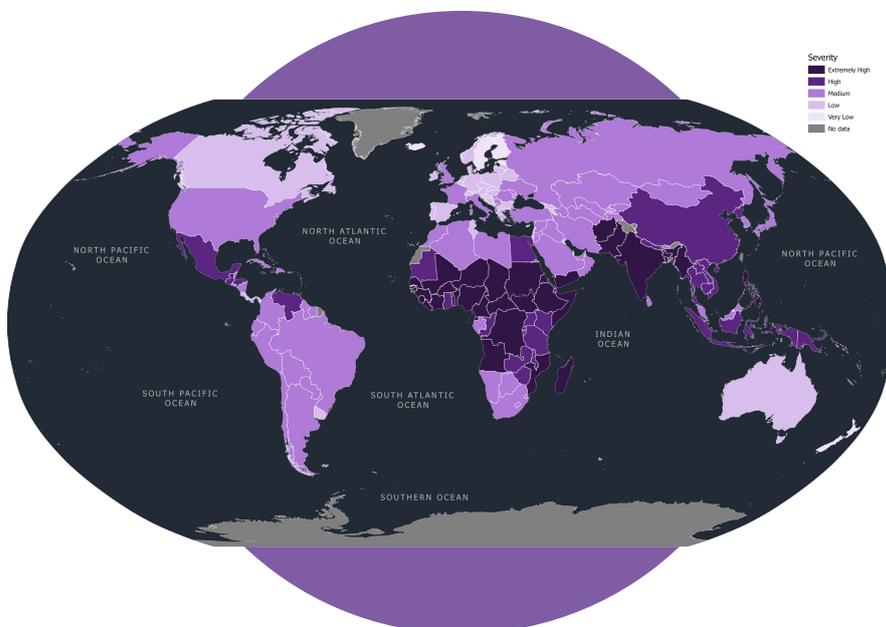


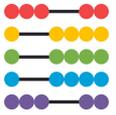
CCRI 2020

FIGURE 4.

The CCRI is a multi-dimensional, equally weighted index that is the direct result of combining national maps of vulnerability with those of the hazards (figures 2 & 3). The vulnerability and hazard maps are spatially distinct and as such demonstrate the value of conceptualising the combination of these elements as risk.

(UNICEF, 2021)





PROMOTING CHILDREN'S RIGHTS IN MITIGATING CHILDREN'S CLIMATE RISK: RECOMMENDATIONS FROM RESEARCH

While the CCRI pinpoints the locations where children are most at risk, more needs to be done to ensure that children can exercise their rights, voices, agencies and decision-making capacities in developments designed to mitigate their vulnerability to climate risk. This is anticipated as an area of further research and elaboration.

Children's lived experiences and voices on climate risk are missing from the National Action Plans called for by the 2015 Paris Agreement and countries committed to the 1990 United Nations Convention on the Rights of the Child. Understanding the risks that climate change poses to children is fundamental for understanding children's current and future well-being. For children's rights to be fully realised, their voices, and understandings of risk and vulnerability, need integration into policymaking as agents involved in mitigating risk and making decisions as joint partners in determining future developments that will impact their lives most as they grow and seek to flourish.



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KEY FINDINGS FROM SYSTEMATIC LITERATURE REVIEW AND CITATION ANALYSIS

Our systematic review of academic and policy-relevant grey literatures found that:

- Little is known about the intersections between the multi-layered factors and how they influence differences in risks for children (including adolescents and young people).
- How the risks manifest in the day-to-day realities of children is not well understood.
- How impacts vary according to the specific ages of children is rarely considered.
- How adults make decisions about children's futures without understanding and addressing the specific climate risks that children face.
- There remains a notable absence of children's agency and decision-making capacities within the existing research.

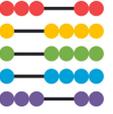
While a limited amount of the policy-relevant literature showcases examples of collaborative participation with children in vulnerability mitigation activities, no examples evidenced children exercising their full agentic capacities as the protagonists of change, i.e., people with the capacity to make decisions and act upon them. A citation analysis examining the importance attributed to linkages between the different factors in the academic literature revealed that the three relationships most commonly identified as influencers of outcomes were the relationships between: 1) poverty and child health, 2) education and child health, and 3) poverty and education. However, given the lack of research examining children's climate change risk from children's perspectives, these links can only be said to reflect adult understandings of children's risk rather than children's own understandings of risk.

KEY RECOMMENDATIONS

As children are disproportionately affected by the impacts of climate change, it is fundamental for them to be positioned at the centre of all developments in research, policy, decision-making, and practice. Opportunities for children to exercise their agency and for research to be conducted in partnership with children to coproduce and utilise qualitative forms of inquiry to understand their real-life experiences of climate risk are crucial to future development. These would be differentiated according to age and contexts. Action should follow such insights to safeguard children's futures. Societal efforts in mitigating climate risk have to involve children fully as agents as envisaged in the Convention of the Rights of the Child (CRC).

POLICYMAKERS, ACTING ON BEHALF OF SOCIETY, SHOULD THEREFORE:

- Engage actively with children as decision-makers and work with them to transform their lives
- Provide the resources necessary to transform children's lives by eliminating poverty, providing high quality health care, and facilitating access to all levels of education.
- Reduce reliance on fossil fuels as drivers of in-country development, and pursue low-carbon development opportunities.
- Promote child-centred policies and practice amongst community-based practitioners.



WHERE DO WE GO FROM HERE?

ADDRESSING THE CLIMATE CRISIS REQUIRES EVERY PART OF SOCIETY TO ACT.



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- **Governments** need to ensure that environmental policies are child-centred
- **Businesses** must ensure their practices are protective of the natural environment on which child and human well-being depends
- **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 understanding of climate change, mitigation and adaptation
- **Children and young people** need to be recognised and listened to as agents of change

In 2022, UNICEF will embark upon its next five-year Strategic Plan, which will guide their work in over 190 countries and territories until 2027. 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.**

The CCRI is the start of a process not the finish. There is work to be done in developing the components, ensuring the collection of data underpinning the index, downscaling to a sub-national and even localised level, learning how to capture and utilise the intersectional complexity of the relationship between climate impacts and the lives of children, and directly involving children in the development and dissemination process.

The CCRI provides a picture of the global state of climate risk to children, based upon available data for 2020. Going forward, the intent is to utilise future Representative Concentration Pathway (RCP) and Shared Socioeconomic Pathway (SSP) scenarios to consider **plausible future states of the CCRI in 2050.** This is an ongoing piece of work and UNICEF will be releasing the results of this work during **Earth Day 2022.**

ACKNOWLEDGEMENTS

ALL INTELLECTUAL PROPERTY IN THE CHILDREN'S CLIMATE RISK INDEX VESTS SOLELY WITH, AND IS OWNED EXCLUSIVELY BY UNICEF.

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