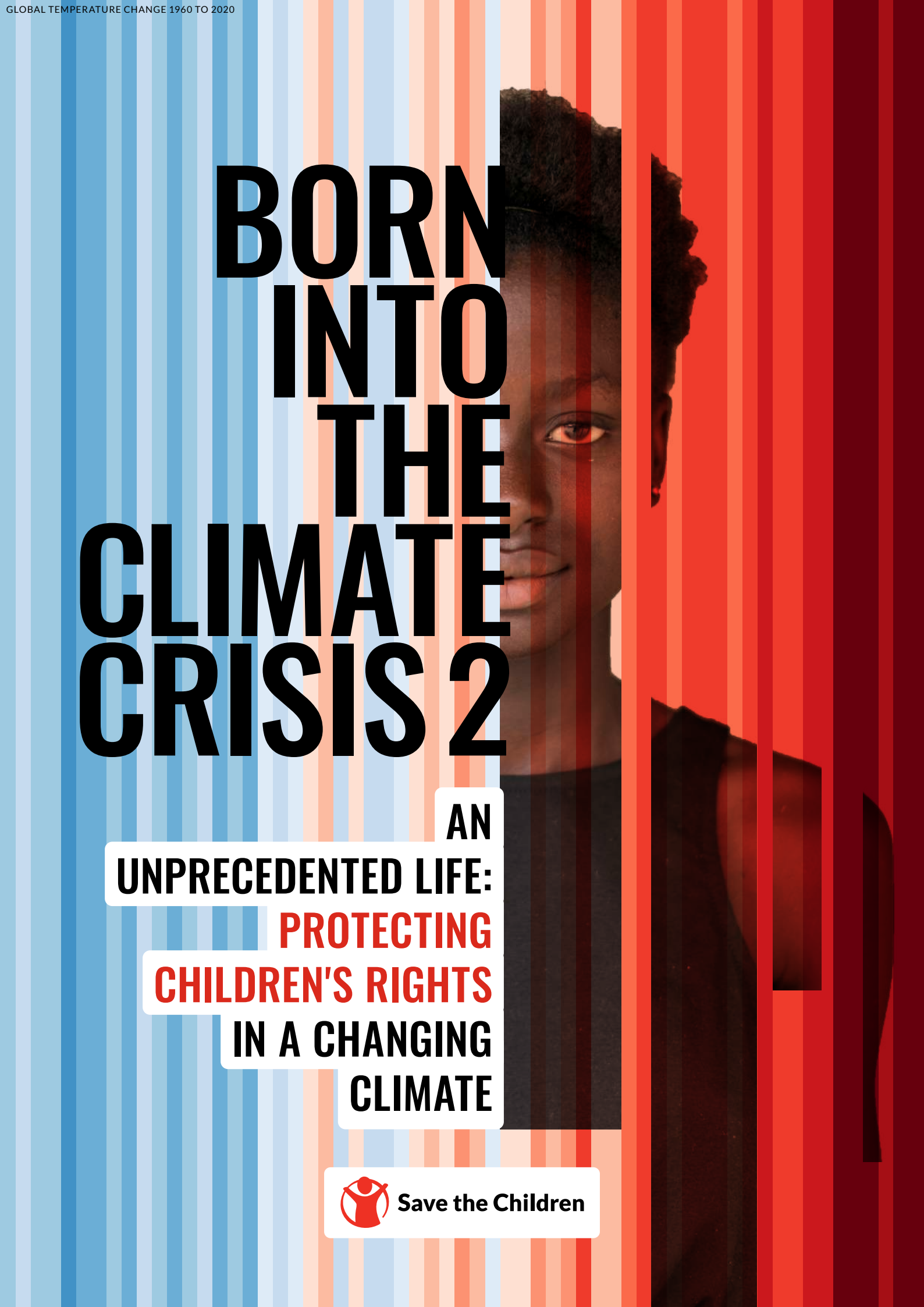
GLOBAL TEMPERATURE CHANGE 1960 TO 2020



BORN INTO THE CLIMATE CRISIS 2

AN UNPRECEDENTED LIFE: PROTECTING CHILDREN'S RIGHTS IN A CHANGING CLIMATE

Save the Children



Drawing by Yuntong, 18 years old, from China, 2024.

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"My message to the youth is: You're not alone in this fight. Don't stop making your voice heard! For as long as one of us keeps talking about such issues, the fight's not over! and to the adults: Currently you're the adults in this world, so get a grip and act like actual adults."

– Vesa, 14 years old, from Albania



"Our future is at stake, and we must be part of the decisions that shape it."

– Children from Pakistan

Child participation statement

This report has been developed with the support of a dedicated child reference group, comprised of 28 children aged between 11 and 18 years old from Colombia, Vanuatu, New Zealand, Ukraine, Albania, Sierra Leone, China and Yemen, to outline how the intergenerational impacts of the climate crisis are infringing on children's rights. We thank these children – and all child advocates for climate action globally – for their time, thoughtful recommendations, and continued commitment to defending the rights of children in the face of a climate crisis that is not of their own making. The report also features children's statements and experiences of climate change and economic inequality obtained through Save the Children's consultations with 58000 children from 46 countries in 2022[i] and hundreds of children meaningfully engaged in climate advocacy and campaigning from 20 countries in 2024.[ii]

Photo: Hasan Iqbal/ Save the Children

Protectem Mifala Vanuatu Pikinini
Protect Us, the Children of Vanuatu

Poem by Haruka, 16 year old girl from Vanuatu

I remember being a little girl,
hearing the wind slam the door,
watching our coconut tree fall lifeless.
I was scared, scarred.
But in a developing Pacific nation,
I was privileged.

I can't imagine the children without doors,
whose every thought is survival,
bearing the brunt of a crisis
they did the least to create.

The little girl I was thought it was normal -
storms were just life in Vanuatu,
'One of the most vulnerable places to disaster.'
But over time, the winds screamed louder,
the skies split wider
Storms weren't visitors anymore.
They came often, hit harder,
turning childhood memories into warnings
the world refuses to hear.

The climate crisis isn't looming—
it's here, breathing down our necks,
churning oceans, tearing lives apart.
In Vanuatu, children bear its weight—
homes washed away, schools in rubble,
futures traded for footprints they didn't leave.
Every year, the land shrinks, the roots weaken,
and the culture we cling to is torn by the wind.
No resources, no time—just survival.
Constantly rebuilding
what an avaricious, anthropocentric society destroys.

Reiterating these repercussions is exhausting.
Our actions now matter.
Meet the Paris Agreement target,
and 5 million children will avoid the devastation of cyclones.
Climate justice is a child's right.
I stand and plead with the children of the South Pacific.
Protect our innocent futures.
Don't let that little girl, don't let us down.
please.

Photo: Conor Ashleigh / Save the Children

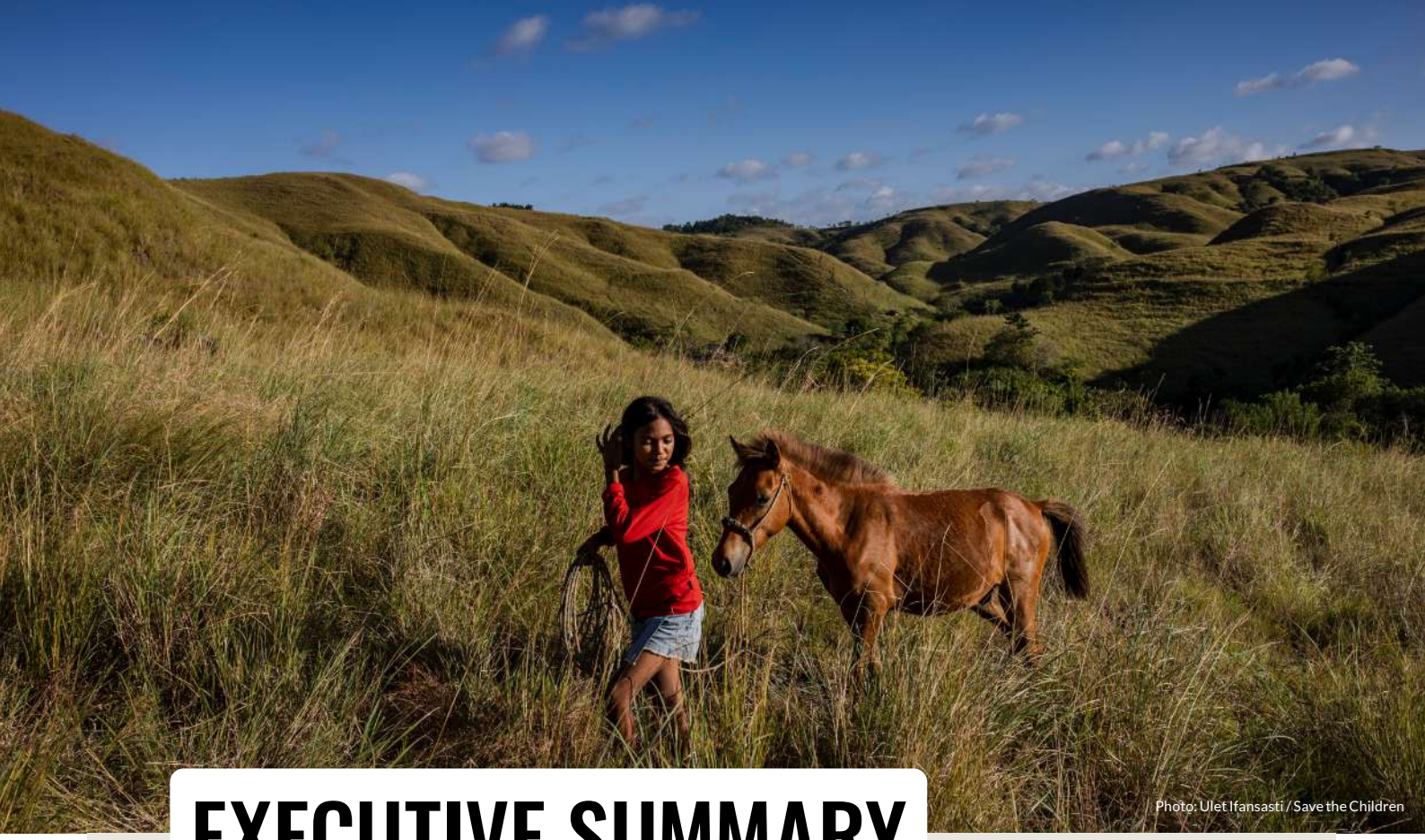


Photo: Ulet Ifansasti / Save the Children

EXECUTIVE SUMMARY

The triple planetary crisis is confronting humanity with unparalleled climate change, biodiversity loss and pollution. This report focuses on the implications of the climate crisis for the rights of children now and in the future. In 2021, Save the Children, in partnership with scientists from Vrije Universiteit Brussel, published a report showing that under Paris Agreement pledges, children born in 2020 will experience on average twice as many wildfires, 2.8 times the exposure to crop failure, 2.6 times as many drought events, 2.8 times as many river floods, and 6.8 times more heatwaves across their lifetimes, compared to their grandparents' generation born in 1960. Despite having contributed the least to the climate crisis, children are bearing the brunt of its impacts – particularly children most impacted by inequality and discrimination and in low- and middle-income countries (LMICs).

In the meantime, both the climate crisis and the urgent need to act are intensifying, and the Paris Agreement target of limiting warming to 1.5°C above pre-industrial levels is likely to be breached. Driven by the vested interests of fossil fuel and other environmentally destructive industries and magnified by the inaction of the historical emitters most responsible for climate impacts, climate change is giving rise to an intergenerational child rights crisis. This denies children's right to a clean, healthy and sustainable environment and burdens children now and in the future, particularly in LMICs with the most dangerous impacts of the climate crisis. This report adds new data about the impacts of climate extremes on children and updates our recommendations for climate action to reflect developments since 2021. Our hope is that by clarifying what is at stake for children, this evidence can contribute to building the necessary political will to act.

New modelling led by the Vrije Universiteit Brussel finds that children born in 2020 are projected to experience unprecedented levels of climate extremes throughout their lifetimes. In this context, **'unprecedented' is defined as exposure to climate extremes you would only have a 1 in 10 000 chance of experiencing during your lifetime in a world without human-induced climate change.** In other words, it refers to new levels of climate extremes never seen before, which the climate crisis now forces us to contend with. These extremes include heatwaves, crop failures, river floods, tropical cyclones, droughts and wildfires. The trajectory of current policy pledges, which points to a 2.7°C increase in global temperatures by 2100, paints a grim picture.

Key findings in this report show that according to conservative estimates:

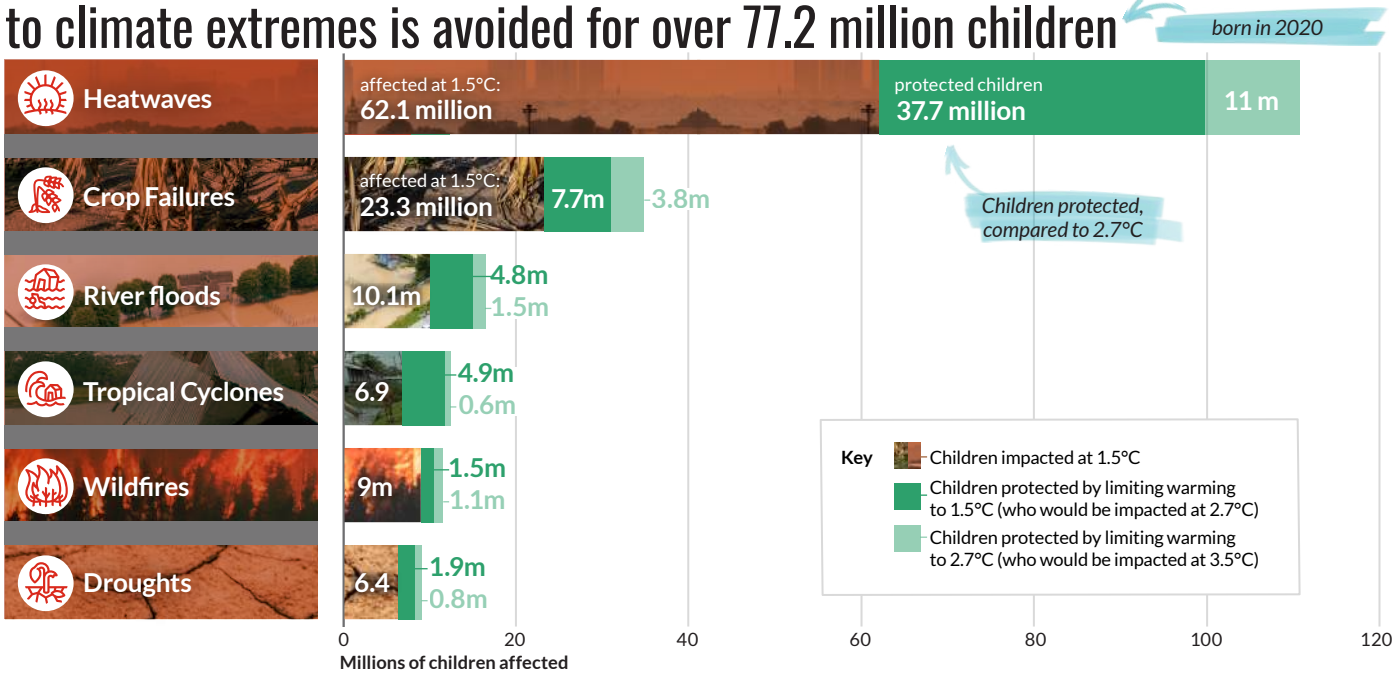
- Achieving the Paris Agreement's goal of limiting global warming to 1.5°C by 2100 is not just an objective, but a lifeline for children. If we succeed in achieving this target the benefits of such a policy shift would be profound compared to the warming trajectory based on current mitigation pledges.[iii] **58 million children[1] born in 2020 – almost half of the 120 million children born that year - would be spared from their lives being subject to unprecedented lifetime exposure to climate extremes:**
  - **38 million children could be spared from facing unprecedented lifetime exposure to heatwaves.**
  - **8 million children could avoid unprecedented lifetime exposure to crop failures that put them at risk of food insecurity.**
  - **5 million children would be spared from unprecedented lifetime exposure to river floods.**
  - **5 million children would avoid the devastation of experiencing unprecedented lifetime exposure to tropical cyclones.**
  - **2 million children would avoid living with unprecedented lifetime exposure to droughts.**
  - **1.5 million would be spared the consequences of experiencing unprecedented lifetime exposure to wildfires.**
- If global warming reaches 3.5°C by the end of the century, 111 million children – a total of 92% of the approximately 120 million children born in 2020—will face unprecedented lifetime exposure to heatwaves, a stark contrast to the 62 million affected under a 1.5°C scenario.
- Low-income countries show the highest levels of exposure to heatwaves across generations. This is not merely a matter of geography but of inequality: those with the least resources and least responsibility for climate change are bound to face the most severe impact of climate-induced temperature extremes.
- Children born in 2020 are at least twice as likely to live a life marked by heatwaves, river floods, droughts, crop failures, wildfires and tropical cyclones than their grandparents born in 1960.[iv]

These figures underscore the critical importance of immediate and sustained emissions cuts to prevent further warming and effectively protect the rights and futures of children worldwide in the face of the climate crisis. The examination of children's lifetime exposure to unprecedented climate extremes at three different global warming pathways – 1.5°C, 2.7°C, and 3.5° above pre-industrial levels – provides a crucial insight into the potential long-term impacts of climate change on children and future generations. It also clearly highlights what we stand to gain from limiting global warming to 1.5°C. Every tenth of a degree of global warming that we fail to prevent has grave consequences, increasing the number of children experiencing climate extremes.

Yet the need to prevent further warming must not detract from addressing climate impacts children are already facing today. Adaptation is not merely a reactive stance but a proactive strategy to safeguard the wellbeing and human rights of children both now and in the future. The case for child-responsive, locally led adaptation is compelling and multifaceted. As active stakeholders with unique perspectives and needs, children must be at the heart of climate adaptation strategies. This enables us not only to protect their rights and wellbeing, but also to empower them as agents of change and stewards of sustainability.

1 This estimate of the total number of children affected by unprecedented lifetime exposure to all six climate extremes is a simple sum and does not rule out the double counting of some children who are affected by unprecedented lifetime exposure to two or more climate extremes. Any double counting is minor and does not affect the conclusions.

By limiting warming to 1.5°C, unprecedented lifetime exposure to climate extremes is avoided for over 77.2 million children



Ensuring that children have a voice and a clear role in shaping the policies and actions that affect their present and future well-being and rights is a key element of ensuring that responses address the intergenerational injustice inherent in the climate crisis. Critically, justice also demands that the countries and companies that have contributed the most to the climate crisis take meaningful responsibility for their actions and provide countries, children and communities that are most vulnerable to the impacts of climate change - but have contributed least to global emissions - with equitable support and resources. Financing loss and damage is a necessity to help children avoid bearing these burdens alone. Yet, climate finance often overlooks children as key stakeholders and very little funding can be considered child-responsive.[v]

Despite these massive challenges, there are positive examples and an increasing understanding of how best to protect children from the climate crisis with effective, child-responsive adaptation. Promising responses across key sectors such as health, education, WASH (water, sanitation and hygiene), child protection, food security and livelihoods, and social protection are essential for children's wellbeing, and include action from multilateral climate funds such as The Green Climate Fund (GCF). These responses include developing climate-resilient healthcare systems; ensuring access to clean water and sanitation; creating safe and resilient schools; including climate change in school curricula; establishing robust and community-led, climate risk-informed and resilient child protection mechanisms; promoting climate-resilient food systems and cities; strengthening shock-responsive social protection measures; and capacities and systems for anticipatory action that can support access to services, as well as protect when crisis hits. This report presents emerging evidence on promising responses, which contribute to building children's resilience in the face of the unavoidable impacts of the climate crisis.



"These numbers might seem frightening, but please don't forget that they represent real children, including those around you. Don't start mourning in despair. Instead, demand for concrete changes in education, in public facilities, in disaster preparedness. The severity of this climate crisis depends on everyone's actions."

- Yuntong, 18 years old, from China

Photo: Ulet Ifansasti / Save the Children

KEY RECOMMENDATIONS

To address intergenerational climate injustice, comply with the obligations of States under the Convention on the Rights of the Child (CRC) and its General Comment No. 26 (GC26), deliver on the promises made to children in the Sustainable Development Goals (SDGs), achieve the goals of the Paris Agreement, and protect millions of children from experiencing the unprecedented climate extremes that will accompany 2.7°C and 3.5°C of warming, governments, multilateral and bilateral donors, the private sector and non-governmental organisations must:

- **Take ambitious and urgent action now to limit warming to a maximum of 1.5°C above pre-industrial levels in the short, medium to long term**, including by rapidly and equitably phasing out the use, subsidising and financing of fossil fuels, with high-income and historically high-emitting countries leading the way.
- Ensure that the new **climate finance goal of at least $300 billion annually by 2035, as adopted at COP29, delivers child- and gender- responsive outcomes at the required scale**. This funding needs to be provided primarily in the form of grants and highly concessional finance to the countries most affected by the climate crisis that can least afford to address its impacts, particularly for adaptation and loss and damage.
- **Implement 'polluter pays' measures to generate new and additional resources** to support lower-income countries in averting, minimising and addressing rapidly escalating losses and damages from the climate crisis.
- **Recognise children as equal stakeholders and key agents of change** in addressing the climate and environmental crisis, including by establishing child-friendly mechanisms and platforms to facilitate child-led solutions and children's formal engagement in climate policymaking.
- **Implement GC26 on children's rights and the environment with a special focus on climate change** to ensure a child rights-based approach to climate action and the respect, protection and fulfilment of **children's right to a clean, healthy and sustainable environment** at national and international levels.
- **Scale up shock-responsive and adaptive social protection and broader anticipatory capacities and systems to address the increasing impacts of climate shocks** on children and their families, with the ambition of moving to universal child benefits over time to improve child wellbeing and build resilience.
- **Implement urgent, child-centred adaptation measures** to ensure that children maintain access to essential services such as health, education, nutrition, water, sanitation, and child protection before, during, and after climate-related shocks. Additionally, invest in closing the research gap on best and new practices that build child-centred climate resilience in the face of inevitable impacts and future risks

At the time of publication, we are witnessing an unprecedented level of cuts to aid. We recognise the sector will be forever changed by these rapid decisions. If public climate finance flows drop due to shifting norms and broader aid cuts, we will witness a significant regression in children's health, nutrition, protection, and education outcomes, as well as their overall enjoyment of the right to a clean, healthy and sustainable environment. It is vital that alongside addressing the recommendations set out in this report, we collectively come together to ensure any future reforms to the international financial architecture can sustainably deliver for children.



Photo: Save the Children

IMPACTS OF CLIMATE RISKS ON CHILDREN

Children are uniquely vulnerable and disproportionately impacted by the climate crisis

Climate change is not a distant threat: it is a pressing reality that disproportionately affects those who have done the least to cause it and who are the most vulnerable to its impacts – children. The world's 2.4 billion children are already bearing the brunt of the climate crisis, with those suffering from inequality and discrimination hit first and worst.

Children are uniquely vulnerable to climate change due to their still-developing physical and psychological systems, which make them particularly susceptible to environmental stressors[vi] such as disease, water and food scarcity, and disrupted access to basic social, health, education, and child protection services.[vii] The climate crisis is aggravating the risk factors for experiencing violence, abuse and exploitation, and has wide-ranging impacts on children's mental health.[viii] It further exacerbates risks such as child marriage[ix] and other forms of gender-based violence, child labour, migration and displacement, or kidnapping and recruitment by armed actors – particularly in the face of disasters and long-term ecological shifts. This vulnerability is magnified for the staggering 774 million children who confront the dual threats of poverty and high climate risk[x], predominantly in low-income countries. These children, already disadvantaged by economic inequality, bear the heaviest burden of climate impacts, and possess the least resources to adapt or respond to these challenges.

Vulnerability varies amongst children: those living in poverty or remote communities, children in urban slums and informal settlements, younger children, displaced children, girls, and children who are discriminated against on the basis of their sexual orientations, gender identities and expression (SOGIE), Indigenous children, and children with disabilities face the most serious climate consequences. New modelling predicts that, by 2050, climate change will cause 40 million more children to be stunted and 28 million more to suffer from wasting – the most severe forms of chronic and acute malnutrition.[xi] For girls, climate extremes greatly increase the risk of gender-based violence, including child marriage as households under pressure may turn to child marriage as a coping mechanism to alleviate financial burdens by reducing the number of dependents they need to provide for and securing perceived economic or social benefits through dowries or alliances. Analysis by Save the Children shows that globally almost 9 million girls face extreme risk of climate disasters and child marriage every year.[xii]

As the planet warms due to human activities, climate extremes become more frequent and intense, along with slow-onset events like sea level rise and desertification. These effects of a rapidly changing climate pose significant and immediate risks to children's rights, including their right to health, education, protection, and the overall wellbeing of children. GC26 clearly describes how child rights are impacted by climate change and how the Convention on the Rights of the Child must be implemented in a context of climate and environmental crisis.

The climate crisis can also inflict non-economic losses and damages including the erosion of cultural heritage, biodiversity loss, and the depletion of natural resources, which may force communities to migrate. This is exemplified by the relocations in the Cook Islands due to sea level rise, which disrupt the intergenerational transmission of language and customs.[xiii] The lives and rights of children, and even what it means to be a child, are being rewritten by the unchecked progression of the climate crisis.

Climate policies and finance fall short in considering children's rights

Children are frequently denied their right to be meaningfully included in decision-making processes that concern them, including those related to the climate crisis, and they typically lack access to the political spaces and fundamental information they need to realise their right to safe and meaningful participation. The interplay of inequality in influence and voice is another critical factor in children's lack of access to decision-making. Children – especially those most impacted by discrimination and inequalities – are often the least heard in policy-making arenas, despite being the most affected by decisions made today. Their limited power translates into a reduced opportunity to advocate for their needs and rights, leading to a vicious cycle where the most vulnerable are continually marginalised in discussions about inclusive climate actions and sustainable development.

> ***"Major polluting countries need to be held accountable for the damage they are causing to our environment and our people, especially in smaller nations vulnerable to climate change. It is critical that political decision makers listen to the voices and the experiences of children in small island developing nations that are at the absolute frontline of the climate crisis, because our views are invaluable to understand the full extent of the effects of climate change in local contexts."***
>
> – Vepaimele, 15 years old, from Vanuatu

Climate Action and Sustainable Development

Progress towards the Sustainable Development Goals (SDGs) is significantly off track. Only 15% of 139 targets are on track for 2030. Goals such as No Poverty (G1), Zero Hunger (G2), Clean Water and Sanitation (G6), and Sustainable Cities and Communities (G11) have seen minimal progress or even regression.[xiv]

Achieving the SDGs and tackling the climate crisis are interconnected. A UN Department of Economic and Social Affairs and UNFCCC[xv] report highlights that 80% of SDGs targets have synergies with climate action – meaning that responses to climate change can have significant development dividends. Yet without a holistic, rights-based approach, climate action can have unintended consequences for sustainable development. The same report warns that a narrow focus on climate targets could increase hunger risk for 84 million people by 2050,

Without synergy, the SDGs and climate goals will remain unattainable. Evaluating the co-benefits and trade-offs between climate action and the SDGs, ensuring that human rights, including children's rights, are upheld in climate action, and that communities facing inequality and discrimination benefit equally from the transition to low-emission, climate-resilient economies, is crucial for finding cost-effective interventions and ensuring a just transition, particularly for children and young people.[xvi]

> *"As children, we are never invited in their meetings about climate change, and we really do not know what they are discussing. At community level, we are also not engaged, we are considered as children and that is all."*
>
> - Boy living in Malawi

Moreover, there is a stark gap in funding for child-responsive climate initiatives. Over a 17-year period from 2006 to 2023, just 2.4% – amounting to $1.2 billion, or an annual average of $70.6 million – of the climate finance allocated by four major Multilateral Climate Funds was found to support child-responsive projects.[xvii] However, even this small percentage overstates the focus on children, as such activities are often not the main objective of the projects. Some funders have recently acknowledged this gap, for example the Green Climate Fund is actively working with partners like Save the Children to bridge child-focused climate finance. Compounded by the fact that climate finance is largely double counted with development aid[xviii] and often inaccessible or provided as unaffordable loans, it has failed to deliver for children. The figures above represent a call to action, highlighting the need to amplify investment in the resilience and rights of children.

Children have a right to a clean, healthy and sustainable environment

The adoption in 2023 of the UN Committee on the Rights of the Child's GC26 on child rights and environment with a special focus on climate change, following the UN General Assembly's recognition of the right to a healthy environment, was a landmark moment. It is the first global policy instrument that describes the link between child rights and environmental and climate challenges, explicitly recognising children's right to a clean, healthy and sustainable environment. Additionally, the Declaration on Children, Youth, and Climate Action, coupled with an increasing focus on the inclusion of children and youth in UN climate-related decision-making processes, reflects a growing commitment to prioritising children, youth and intergenerational equity in international climate policy.

Compared to the relatively strong status of youth as a key stakeholder group (adults aged 18-35 as defined by the UN), the inclusion of children (under the age of 18) is still lagging and needs to be significantly strengthened. Children's rights coalitions have collaboratively advanced the agenda for children's rights in climate actions, with outcomes from recent COPs showcasing a paradigm shift towards recognising and integrating children's participation in climate decision-making processes.[xix] Much work remains to be done in raising awareness on the differences between the respective rights of youth and children, while emphasising that there is a continuum and significant overlapping interests between the two groups.

However, despite some positive developments, we are still far off track to meet the 1.5 °C objective of the Paris Agreement, and our current estimated trajectory towards 2.7°C of global warming by the end of the century or worse means bleak futures for children.



Drawing by a child in Colombia, 2024.

> *"Climate change campaigning has connected me to so many compassionate and hopeful people of all ages who truly care about the future of all the vibrant life on this planet. To me, climate change is not just a crisis, it's also a wakeup call that made me see the people around me and think about what truly matters in life.*
>
> – Yuntong, 18 years old, from China

Corporate responsibility for greener futures

A major consultation of 54,000 children by Save the Children[xx] found that children worldwide believe both public and private sectors must tackle the climate crisis together. Effective partnerships, cooperation, and financing are essential. The 1.5°C target of the Paris Agreement is being undermined by ongoing investments in fossil fuels. Banks, pension funds and insurance companies continue to invest trillions in fossil fuels despite knowledge of the risks, facilitating the growth of the coal, oil, and gas industries and undermining the economic case for greener alternatives.

Although financial institutions publicly commit to reducing emissions, their investments still support fossil fuel expansion. These investments worsen climate impacts, disproportionately affecting children in LMICs. The shift to clean energy has not been equitable, with reports of human and child rights abuses for example connected to the mining for batteries. Nonetheless, the private sector, including financial institutions, can create ambitious transition plans that are aligned with the 1.5°C goal, avoiding greenwashing, integrating child rights, and addressing environmental and social risks for children in just transition plans.

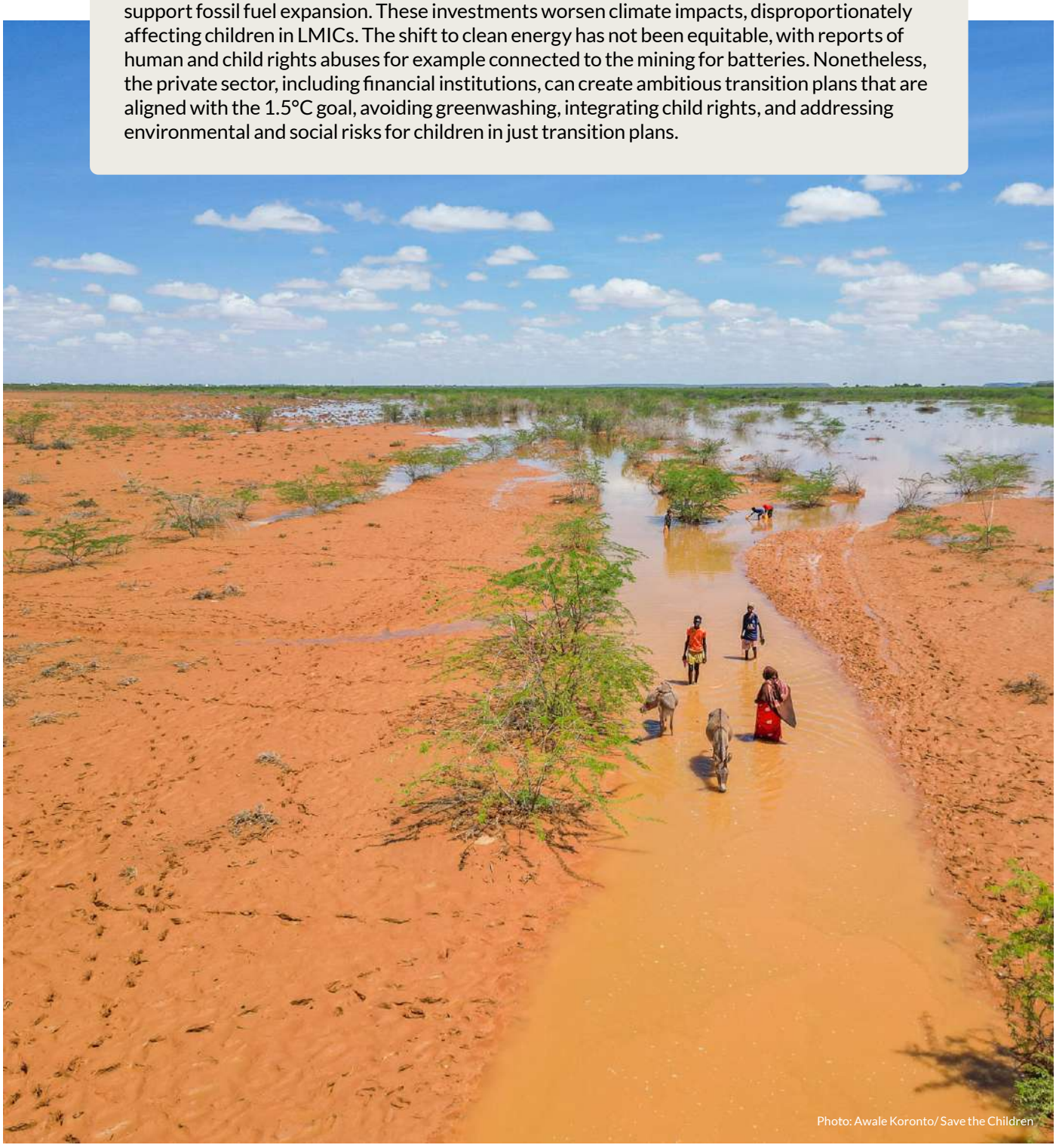
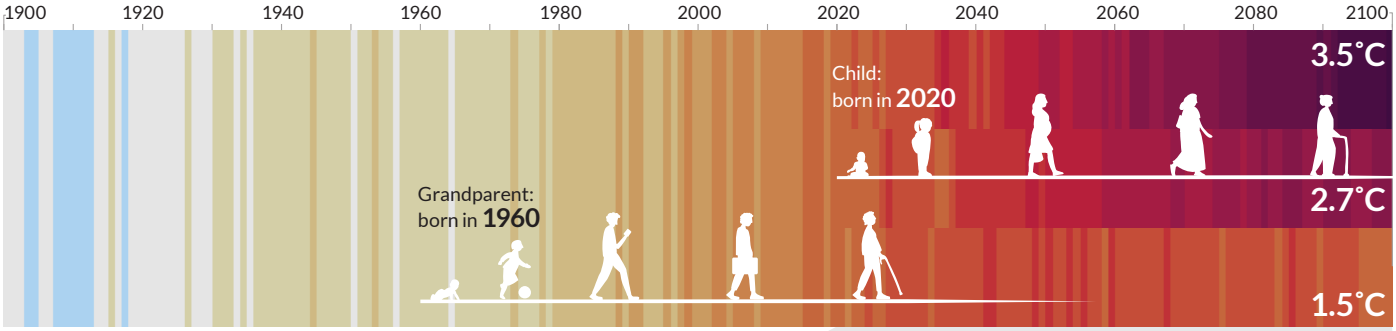


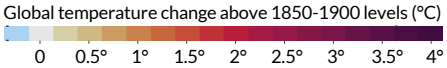
Photo: Awale Koronto/ Save the Children

Climate extremes

A record number of the world's children will experience unprecedented levels of climate extremes throughout their lifetimes. In this context, 'unprecedented' is defined as exposure to climate extremes you would only have a 1 in 10 000 chance of experiencing in a world without human-induced climate change. In other words, it refers to levels of climate extremes never seen before, which the climate crisis now forces us to contend with.

Global temperatures differ across the lifetime of two generations





Warming stripes from 2023 IPCC Synthesis Report GHG emissions scenarios: high (SSP3-7.0) [3.6°C], intermediate (SSP2-4.5) [2.7°C], and very low (SSP1-1.9) [1.5°C].

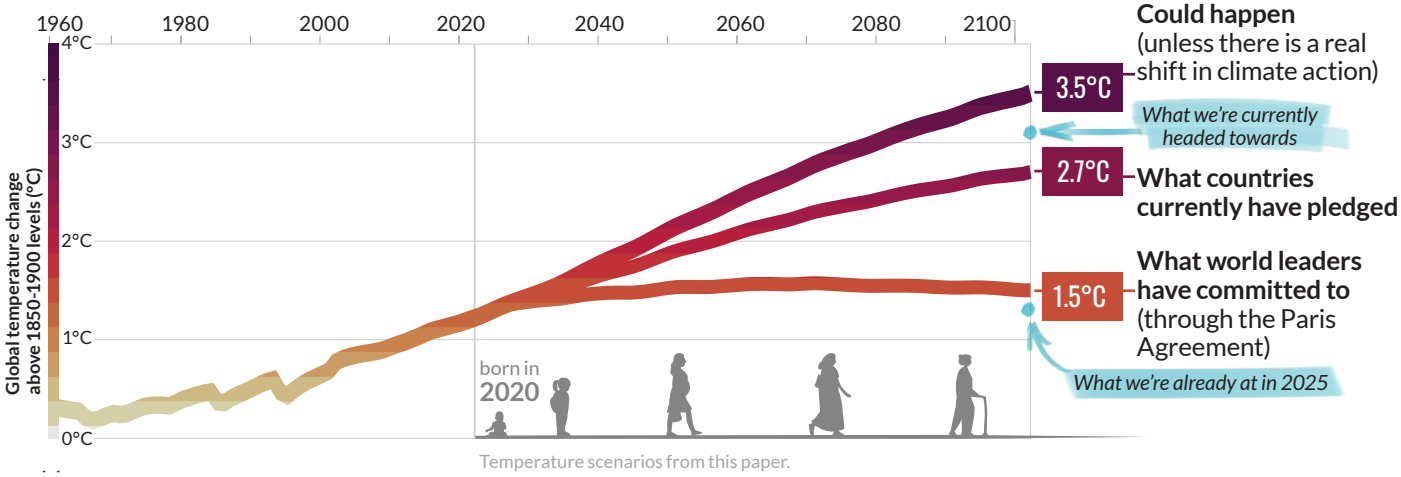
In a world without climate change, there would only be a 1 in 10,000 chance of experiencing this level of unprecedented exposure

Throughout their lifetimes, children born from today will experience new levels of climate extremes never seen before



In a decade's time, increased frequency and intensity of climate extremes will become the new normal for today's children. The current trajectory, based on policy pledges as of 2024, which leads to a 2.7 °C increase in global temperatures by 2100[xxi], paints a grim picture. Conservative estimates show that children born in 2020 are at least twice as likely to live a life marked by heatwaves, river floods, droughts, crop failures, wildfires and tropical cyclones than their grandparents born in 1960.[xxii]

Three temperature scenarios show how the future will impact children



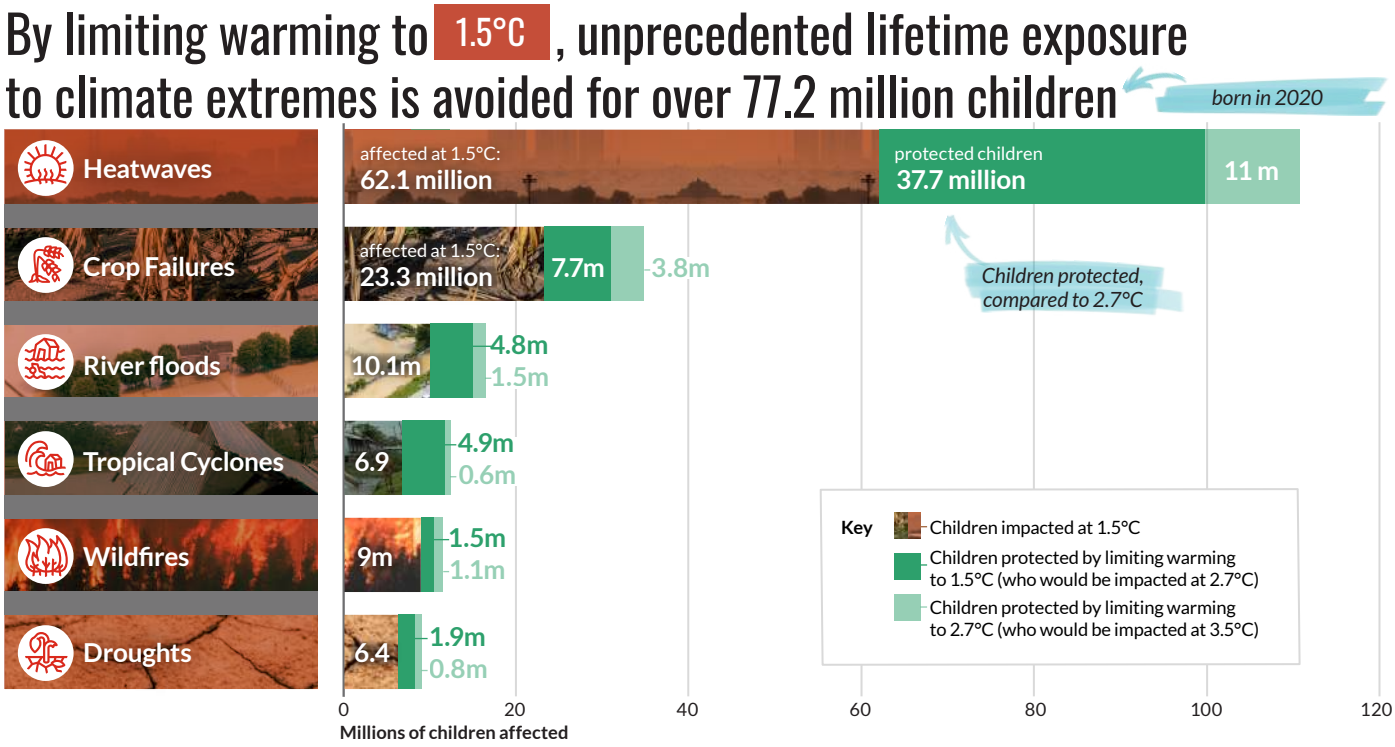
Temperature scenarios from this paper.



Photo: Sacha Myers / Save the Children

The Paris Agreement's goal of limiting global warming to 1.5 °C is not just an objective, but a lifeline for children. If we manage to limit global warming to 1.5 °C by 2100, an estimated 37.7 million children born in 2020 could be spared from facing unprecedented lifetime exposure to heatwaves, compared to the warming trajectory based on current mitigation pledges.

The benefits of such a policy shift would not just help reduce exposure to heatwaves, but would extend to all five other climate extremes. In terms of unprecedented lifetime exposure to climate extremes, **7.7 million children would avoid crop failures that put them at risk of food insecurity, 4.8 million children would be spared from river floods, 4.9 million would avoid tropical cyclones, 1.9 million children would avoid droughts, and 1.5 million would be spared from wildfires.**



Among the climate extremes investigated, crop failures, river floods, tropical cyclones, droughts and wildfires are less widespread than heatwaves. Therefore, the number of children facing unprecedented lifetime exposure to heatwaves is by far the highest. However, these less common climate extremes are still projected to affect large populations across the globe.

It is important to acknowledge that 2024 – the hottest year on record at the time of writing, due to human-induced global warming and enhanced by El Niño, among other factors – marked the first year in which an average global temperature breached the 1.5°C increase compared to pre-industrial temperatures. This development, while alarming, does not signify a point of no return, nor does it diminish the relevance of the objective of limiting global warming to 1.5°C.[2] While 2024 serves as a stark reminder of the urgency needed in our response, it is still possible to reverse this trend if there is a significant and sustained decrease in greenhouse gas emissions globally.[xxiii] The goal of the Paris Agreement remains as pertinent as ever, guiding international efforts to secure a stable climate for current and future generations.

While the lives of children today and in the future have already been irreversibly changed by the climate crisis, what we do now to mitigate and adapt to the climate crisis matters. Every tenth of a degree of global warming that we fail to prevent has grave consequences, as it increases the number of children who will experience climate extremes at a scale never seen before. Without more ambitious climate policies and prompt emissions reductions, the children of today will live in a world where climate extremes become routine disruptions, testing the limits of humanity's resilience.

2 According to the IPCC, global warming is defined as an increase in combined surface air and sea surface temperatures averaged over the globe and over a 30-year period. This means that 1.5°C of global warming won't be breached until it constitutes the average global temperature increase over 30 years.

Climate risks connected to maladaptation

In addition to being vulnerable to climate extremes, children are also being impacted by slow-onset climate change like sea level rise, and if human responses to the climate crisis are maladaptive, this can make risks worse. The latter can inadvertently exacerbate vulnerabilities, leading to adverse consequences that often disproportionately affect the most marginalised populations, including children. For instance, the building of seawalls to protect children and their families from rising sea levels may actually increase their exposure to other hazards, as seawalls can act as a barrier, preventing water from storms from draining into the sea.

They may also provide people with a false sense of security and encourage them to remain in places and continue with activities that make them vulnerable to climate change, if and when the infrastructure fails. In addition, seawalls can shift vulnerability to other families elsewhere along the coast because of changes in sediment deposits, potentially threatening the health of marine ecosystems (e.g. corals). Maladaptation is not simply a state of inadequate adjustment to climate change; rather, it is an active process that increases the susceptibility of individuals to adverse impacts from climate change.[xxiv]

"I'm here today to tell you that we have had enough. We have had enough of missed days and weeks of school or work, no power for weeks, having to be displaced due to rising sea levels, food insecurity because crops have been wiped out by cyclones or droughts."

– Gabrielle, 15 years old from Vanuatu



Photo: Abdu Sillah / Save the Children

HEATWAVES

The widespread increase in exposure to heatwaves because of the climate crisis has profound consequences for children's physical and mental health, educational outcomes and overall wellbeing. Heatwaves disproportionately impact children's health – infants and very young children in particular[xxv] - by increasing the risks of dehydration, respiratory illnesses[xxvi], mental health issues and mortality[xxvii]; they jeopardise nutrition by increasing the risks of crop failures and food price inflation; and they disrupt education through school closures and difficulties in concentrating because of the extreme heat.

Heatwaves stand as one of the most palpable and immediate manifestations of the climate crisis. **Even under a global warming pathway limited to an increase of 1.5 °C, more than half of the children born in 2020 – 52% – are projected to face unprecedented lifetime exposure to heatwaves.**

The situation becomes much worse as we consider a scenario where global warming escalates to **3.5 °C by the end of the century**. In such a near-worst-case scenario that assumes continued high emissions, **the proportion of children born in 2020 encountering unprecedented heatwave exposure rises to 92%.** To put this into perspective, that is **111 million children embarking on a life where heatwaves once considered extraordinary and rare extreme events become their new normal, compared to 62 million children in a more tempered 1.5 °C scenario.** While it might seem an extreme or unlikely scenario at first, according to the IPCC it is worryingly close to the estimated 3.2°C of global warming the world is headed towards if climate policies implemented up to 2020 continue.[xxviii]

Of 100 children, limiting warming to 1.5°C protects 40 from unprecedented lifetime heatwave exposure



8 children not impacted
(up to 3.5°C of warming)

9 children protected by limiting warming to 2.7°C
(who would be impacted at 3.5°C)

31 children protected by limiting warming to 1.5°C
(who would be impacted at 2.7°C)

52 children impacted at 1.5°C

Adapting to increasing heatwaves

Strategies & investments needed in:

- Public health
- Urban & rural design
- Community heatwave awareness
- Early preventative action
- Emergency response
- Cooling infrastructure
- Heat alert systems
- Green spaces
- Child-centred nature-based solutions

The burden of heatwaves is not distributed evenly across the globe. When we examine the data through the lens of economic disparity, a stark pattern emerges. Low-income countries, already grappling with a myriad of developmental challenges, consistently show the highest levels of exposure to heatwaves across generations. This is not merely a matter of geography but of inequality: those with the least resources and least responsible are bound to face the most severe impact of climate-induced temperature extremes.

The number of children born in 2020 exposed to unprecedented heatwaves is highest in the tropical areas close to the Equator. However, if global temperatures continue to rise heatwaves become such a widespread phenomenon that no region is spared as recurring temperature records during summer in Europe clearly demonstrate.

Under 1.5°C of global warming, 104 out of 177 countries that were part of the analysis have more than half of the children born in 2020 living with unprecedented exposure to heatwaves. This number rises to 157 countries at 2.7 °C of warming. In contrast, if the world warms by 3.5 °C by the end of the century, an overwhelming majority of countries—167 in total—will see more than half of the children born in 2020 experiencing unprecedented heatwave exposure. In 155 of these countries, the figure rises to over 90%, and in 113 countries, every single child born in 2020 is expected to face heatwaves never seen before.

"Over the past 2 years, the summer was very hot, this temperature is not usual for our region. However, what surprised me the most was when I saw in the media the increase in mortality from heat stroke."

– Voldoya, 17 years old, from Ukraine



Drawing by a child in Colombia, 2024.

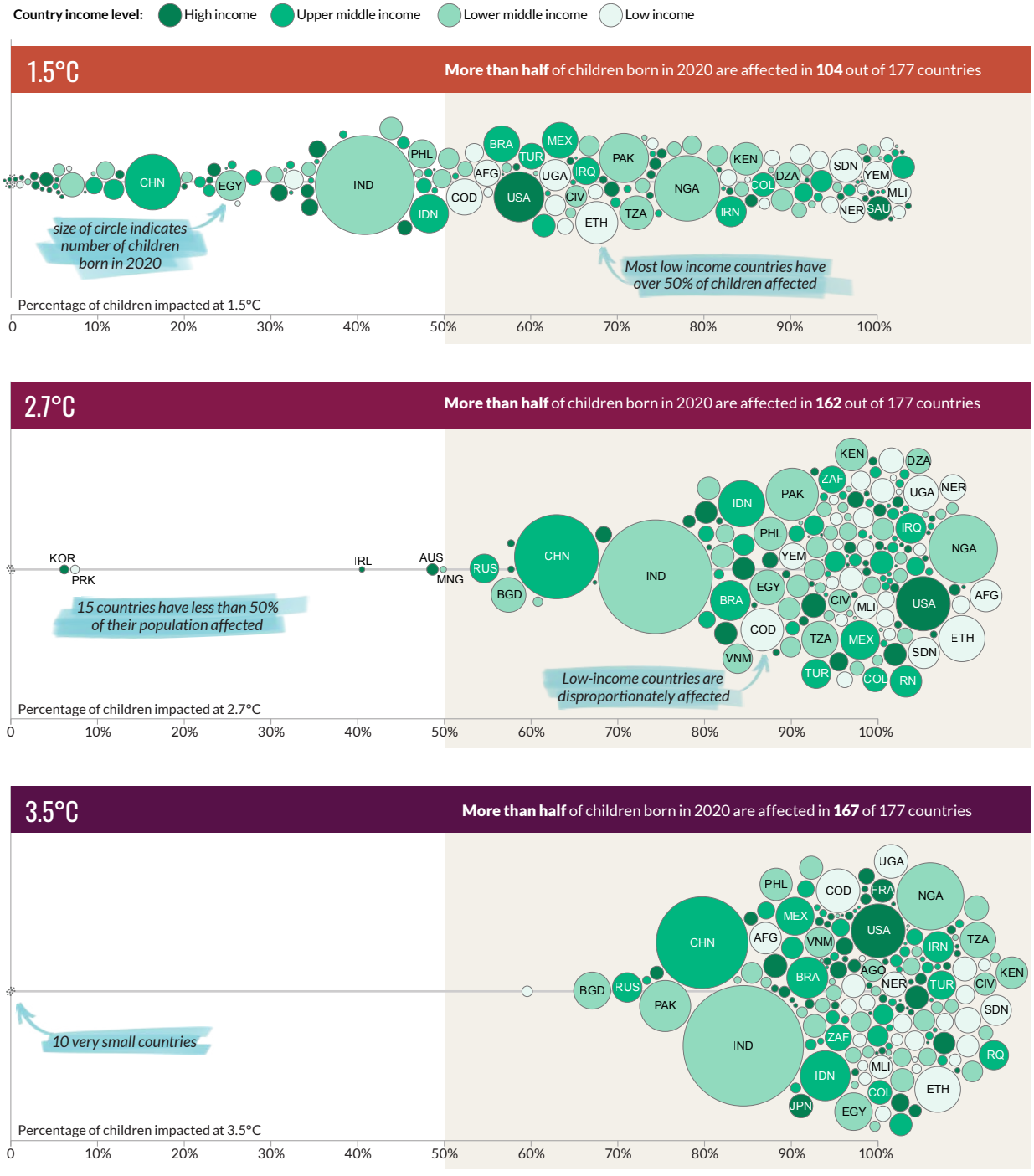
Heatwaves disproportionately affect children in slums

Heatwaves have a particularly devastating impact on children living in slums, where dense living conditions, inadequate housing, burning of open waste, and lack of access to cooling infrastructure amplify the effects of extreme temperatures. As temperatures rise, people crowded into slums - often a third or half of a city's population are most at risk from the heat and its health impacts, while wealthier neighbours live in air-conditioned homes. Areas with informal settlements often lack vegetation and are constructed with materials that trap heat, creating an urban heat island effect that causes temperatures to soar 10 to 15 degrees higher than surrounding areas.[xxix] The scarcity of essential amenities such as clean water, dependable electricity, and cooling appliances like fans, in homes and schools, along with insufficient shaded or green spaces, renders residents, particularly children, highly susceptible to the adverse effects of extreme heat.

The intense heat is felt sharply by pregnant women, increasing the risk of health complications, while babies and young children face a higher likelihood of dehydration, heat exhaustion, and heatstroke due to their bodies' limited ability to regulate temperature. Women and adolescent girls are often responsible for securing water and caring for children, bearing the brunt of these harsh conditions, with the compounded effects of heatwaves impeding their ability to provide care and maintain household stability. Further, most residents in slums and informal settlements work in the informal sector as, for example, construction workers, hawkers, and waste pickers and are more exposed to heat-related health risks and economic impacts.[xxx]

Children in most countries are affected by unprecedented lifetime heatwave exposure when warming passes 1.5°C

Percentage of children facing unprecedented lifetime heatwave exposure

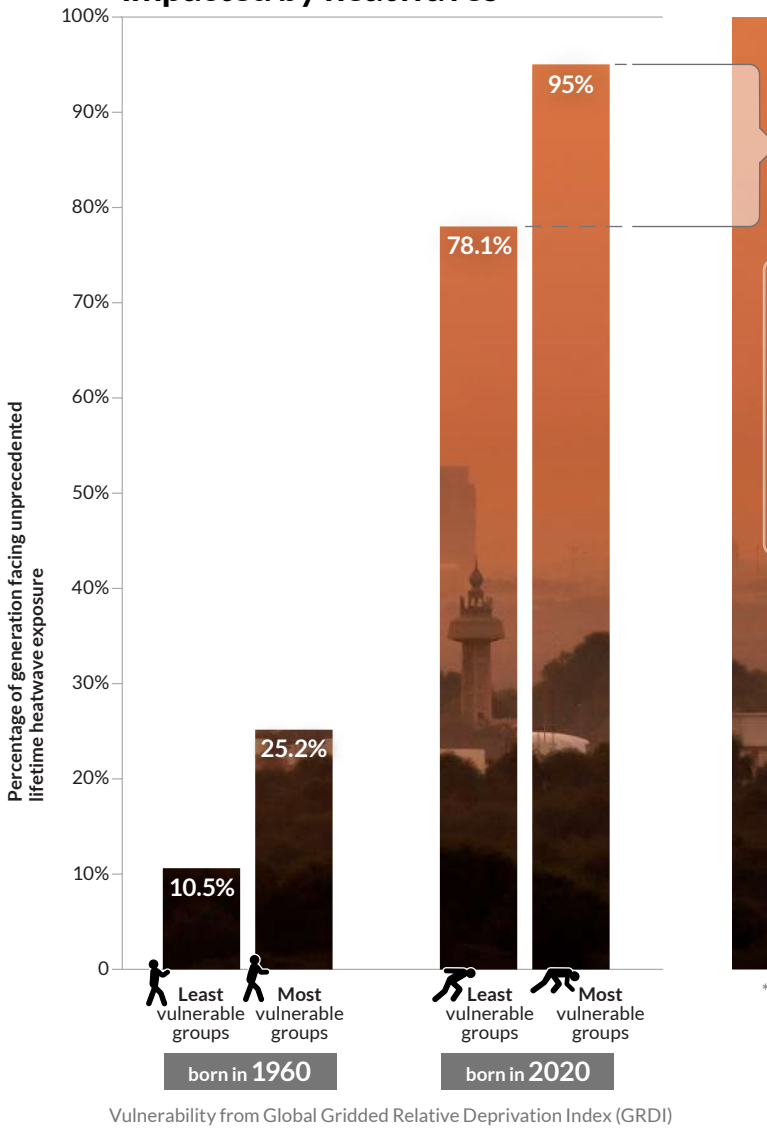


Under current national climate policy pledges, which set us on a course for a 2.7 °C temperature rise by 2100, the projections indicate that in the Americas, Africa, the Middle East, and Australia even adults born in 1960 will encounter unprecedented heatwave exposure during their lifetime. For children born in 2020, all regions face unprecedented exposure to heatwaves. This means that unless the world manages to implement significantly more ambitious climate action that keeps global heating well below the currently projected 2.7 °C, no region will be exempt from the escalating impacts of unprecedented heatwaves. This paints a future where children everywhere will face the challenges of adapting to heatwaves.

The study also found that exposure varies significantly depending on the socio-economic vulnerability of populations. Unsurprisingly, the proportion of children facing unprecedented exposure to heatwaves is significantly higher among the most vulnerable compared to the least vulnerable. This is because the most vulnerable populations live in areas more affected by climate extremes, in addition to having lower adaptive capacity. For example, in lower-income communities, schools and homes where children spend most of their time may not have been designed well to cope with extremes, and are unlikely to have air-conditioning, or even be connected to electricity and water. The study used two indicators to measure socio-economic vulnerability: the Global Gridded Relative Deprivation Index (GRDI), which reflects multidimensional deprivation and poverty, and lifetime mean Gross Domestic Product (GDP) per capita. Based on these indicators, the study identified the 20% most and least vulnerable children born in 2020 with respect to these two indicators.

2.7°C

Percentage of population impacted by heatwaves



Vulnerability from Global Gridded Relative Deprivation Index (GRDI)



*The social and economic factors that make groups more vulnerable are often exacerbated or compounded by underlying marginalising characteristics such as gender and age exposing certain groups more than others.

Children have done the least to cause the climate crisis but are often the most affected.

Results show that under current policies leading to a 2.7 °C temperature rise by 2100, 95 percent of children in the most vulnerable group based on the GRDI Index face unprecedented exposure to heatwaves, which amounts to about 22.8 million children. In contrast, 78 percent, or 18.8 million children, in the least vulnerable group are expected to face similar conditions. When considering vulnerability based on mean GDP, 92 percent of children – amounting to 22.1 million - in the lowest-income group are projected to face unprecedented exposure to heatwaves, compared to 79 percent or 18.9 million children in the highest-income group.

Vulnerable groups and those affected by inequality have lower adaptive capacity and face more constraints when it comes to implementing effective adaptation measures. The results show that it is precisely the populations with the highest vulnerability and the lowest adaptation potential that face the most unprecedented exposure to heatwaves. The disparity in unprecedented exposure between the most and least vulnerable children remains under both alternative warming pathways of 1.5 and 3.5 °C. This underlines the disproportionate risk for deprived children and communities faced with climate extremes.

The need to adapt to the escalating frequency of heatwaves demands community and rights-based strategies in public health, urban design, climate-resilient infrastructure, preparedness, early preventative action and emergency response. Investments in child-responsive climate services for health, protection, education and other key sectors for children, child-centred early warning systems and heat alert systems, cooling infrastructure and green spaces will be vital to reduce the health impacts of these extremes on children. The decisions we make now will shape children's resilience to the intensifying heatwaves, making it crucial to pursue a path of not only decisive climate action, but also proactive adaptation that considers the unique needs and vulnerabilities of children.

"It is very sunny and hot; sometimes it rains and sometimes it doesn't. You can no longer study seasons of the year."

- 6-year-old girl living in urban Mexico



Photo: Hasan Iqbal/Save the Children

CROP FAILURES

"Usually in the summer we plough, but then this year, no one ate what was ploughed ... because all of a sudden there was this drought, no rain. Crops just stopped growing and they started dying, livestock were also dying. We started buying water, the taps are dry."

- Child living in South Africa

As the climate crisis worsens, a major challenge is the threat to global food supply and access. Crop failures, increasingly common due to climate volatility, affect temperature and rainfall, impacting crop yields and livestock. This leads to more plant and animal diseases and pests, and rising temperatures disrupt food supply chains, affecting food quality and availability. These issues threaten children's nutrition, increasing risks of undernutrition, wasting, and stunting, which can harm their development. As food becomes scarce and expensive, families may resort to cheaper, less nutritious options, worsening health issues like anaemia in children.

Beyond nutrition, crop failures impact socio-economic stability, especially in rural areas reliant on agriculture. This can devastate livelihoods, causing job losses across the food supply chain and straining economic support for children. Educational impacts are severe; economic pressures may force families to withdraw children from school or resort to harmful practices like early marriage, perpetuating poverty. These challenges highlight the urgent need for interventions to strengthen food systems and community resilience to protect children from the climate crisis's effects on agriculture.

Under a 3.5 °C global warming scenario, 29% of the children born in 2020 are projected to be affected by unprecedented levels of crop failure. This is a profound shift towards a world where the once-reliable rhythms of planting and harvest become erratic and uncertain leading to hunger and high levels of malnutrition.

In contrast, a future where global warming is limited to 1.5 °C offers a more hopeful outlook and lowers the number of children affected from 35 million to 23 million, an equivalent of 19% of the children born in 2020. The frequency and severity of crop failures can be substantially reduced, safeguarding food and nutrition security for millions. Achieving this scenario demands immediate and concerted global efforts to reduce greenhouse gas emissions, transform agricultural practices, and invest in resilient, regenerative food systems that can withstand the challenges of a changing climate. Such measures create opportunities for co-benefits between mitigation, adaptation and environmental sustainability, also meeting the SDGs.

Adapting to unprecedented crop failures necessitates a multifaceted approach to agricultural practices and food system management as well as early warning systems and anticipatory action. Strategic investments in drought, heat and salt-resistant crops and crop varieties, diversification of produce, efficient rainwater capture and irrigation technologies, soil health and on-farm water conservation are crucial to diminish the effects of these failures. Further actions to limit and reverse the decline in pollinators, and secure healthy ecosystems and biodiversity at larger scale will support the food system and resilience towards climate impacts. The recognition and application of indigenous peoples' and local communities' knowledge and practices for a sustainable and regenerative agriculture is essential to increase the food and nutrition security of the most vulnerable families.



Drawing by Veronika, 11 years old, from Ukraine, 2024.

Our decisions now will shape the future resilience of food systems to climate-related disruptions. It is critical that in addition to mitigating climate change, we commit to a course of proactive adaptation to safeguard the food and nutrition security of children.

The triple planetary crisis

Climate change is one of three global environmental issues that threaten humanity now and into the future. Together with biodiversity loss and pollution these global threats are often referred to as the 'triple planetary crisis.' All three have profound influences on the health and wellbeing of children. For example, it has been estimated that globally nearly 2,000 children under five die each day from air pollution.[xxxi] Whereas biodiversity loss affects children's health through the nutrition of the food they eat, the quality of the water they drink, the infectious diseases that can kill them and the medicines they can take to ward off disease.[xxxii]

According to the UNEP's International Resource Panel (IRP), while having different effects these three threats share a causal pathway through the impact of unsustainable consumption and production of natural resources.[xxxiii]To help reduce the impact of unsustainable consumption and production of natural resources the IRP has suggested a number of policy interventions, including:

- Improving resource efficiency and supporting policies that reduce material resource use and dramatically reducing environmental impacts in high and upper middle-income countries (called absolute decoupling) while improving well-being and boosting economic growth.
- Reforming the international financial architecture, i.e., the Multilateral Development Banks (MDBs), International Financial Institutions (IFIs) and Bretton Woods Institutions to address crises of climate change, biodiversity loss, pollution, and waste and to support just transitions based on equity and equality.[xxxiv]



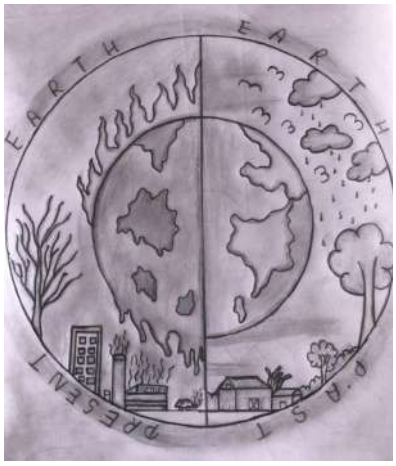
Photo: Sacha Myers / Save the Children

RIVER FLOODS

River floods, a natural phenomenon that has shaped landscapes and civilisations, are becoming increasingly destructive in part due to the climate crisis. For the children born in 2020, the prospect of living with the threat of river floods is alarmingly high. **In a world that warms to 3.5 °C by the end of the century, 14% of children living in regions where this geographically constrained event occurs will face unprecedented exposure to river floods – events that can wash away homes, schools, livelihoods, and the very foundations of communities.**

The increase in river floods is attributed to a combination of factors exacerbated by the climate crisis, including more intense and frequent rainfall, rising sea levels, the increased likelihood of climate extremes, land use changes, rapid, unequal and unplanned urbanisation, and deforestation. The consequences of such flooding are profound and can cause significant loss and damage: houses and belongings can be damaged, waterborne diseases can spread, critical infrastructure such as water and power supply networks, hospitals and schools can be severely damaged disrupting children's education and preventing them from getting medical assistance, and economic activities may come to a standstill as floodwaters inundate cities and rural areas alike. For children, the psychological impact of experiencing such disasters can leave lasting scars. Some children, such as children with disabilities are particularly vulnerable to floodings.[xxxv] In cities, flooding in informal settlements can spur local governments to forcibly evict and displace residents from flood-prone settlements leading to loss of livelihoods, incomes, assets and social networks, further exacerbating poverty and inequality.

In a 1.5 °C pathway, the outlook is markedly different. Only 8% of those born in 2020 are projected to encounter unprecedented river floods. The reduction of the number of children affected from 16 million to 10 million underscores the critical importance of limiting global warming through robust climate policies. By doing so, we can protect children from experiencing river floods and provide them with a more stable future.



Drawing by Isaiah, 17 years old, from Sierra Leone, 2024.

> ***"There is heavy rain in our area each year. Croplands and fishponds are going underwater as a result. Vegetables are not growing well. We are facing a lot of problems because of it, and children are suffering from malnutrition."***
>
> - 14-year-old boy living in Bangladesh

The climate crisis & El Niño have created a perfect storm for children in Bolivia

In Bolivia, a series of disasters, including landslides, floods, and flash floods, have affected over 40,000 children in March 2024, with 12 fatalities reported.[xxxvi] These incidents have left children without homes, interrupted their education, and increased their vulnerability to violence. The disasters, following a period of extreme drought and heatwaves, are part of a pattern of more frequent and severe weather events driven by the climate crisis and the El Niño phenomenon. In response, Save the Children has been working with local agencies to provide essential support to those affected. This includes cash transfers to families to ensure access to basic supplies, addressing immediate needs such as safe water, nutrition and nutritious food, and protection from disease and violence, while also focusing on longer-term climate resilience strategies. These efforts are part of a broader commitment to support children's well-being in Bolivia, particularly in the face of escalating climate-related challenges.

Adapting to the increased risk of river floods will require innovative water management and inclusive urban planning strategies that prioritise children's safety and protection. Investing in resilient infrastructure, suitable flood defences, and watershed and wetland restoration can not only protect livelihoods, thereby reducing child protection risks, but also ensure that schools remain safe and operational. Early warning systems, anticipatory action tailored to the needs of families, and sustainable land use practices will further reduce the risks to children's wellbeing. A lack of adaptation and preparedness can have catastrophic consequences, even in higher-income countries like Spain, as seen in Valencia after the 2024 floods. Children were severely affected by educational disruptions, and many families suffered income and housing losses, leading to significant emotional and mental distress.[xxxvii] The resilience of our future generations to the increasing threat of river floods hinges on the proactive and child-centred adaptation measures we implement today.

Children bear the brunt of the climate crisis in Pakistan's devastating floods

The devastating effects of the climate crisis on children were starkly highlighted by the catastrophic floods in Pakistan in 2022, which claimed the lives of at least 528 children and impacted over 16 million, with 3.4 million in immediate need of life-saving support. The disaster has left many children in perilous conditions without clean water, food, or access to health and education services, leading to severe physical, social, and psychological distress. Recognising the climate crisis as a critical threat to children's futures, there is an urgent call for substantial funding to rebuild essential services and infrastructure for children in affected regions. Moreover, a strategic approach is necessary, focusing on loss and damage prevention and reduction through child-centred early warning systems and anticipatory action for predictable climate-related risks, adaptive social safety nets, and comprehensive climate adaptation and mitigation planning.



Photo: Thoko Chikondi / Save the Children

TROPICAL CYCLONES

In a scenario where global heating increases to **3.5 °C by the century's end, unprecedented tropical cyclone exposure escalates. 19% of children born in 2020 living in regions where this geographically constrained event occurs will find themselves living with unprecedented exposure to tropical cyclones.** This is not merely an incremental increase in exposure; it represents a near doubling of exposure compared to a more moderate heating scenario.

The contrast with a 1.5 °C pathway is stark. If we can limit the temperature rise to this threshold, the proportion of children born in 2020 facing unprecedented tropical cyclone exposure is almost halved to 11%. The projected reduction is a testament to the power of decisive climate mitigation. It suggests that, while we cannot eliminate the threat of tropical cyclones entirely, we can halve the number of children facing unprecedented lifetime exposure.

The implications of this increased exposure are far-reaching and involve significant loss and damage. Tropical cyclones can decimate coastal areas, leaving behind a trail of destruction that can take years, if not decades, to rebuild. The economic costs are staggering, but the human toll—lives lost, families displaced, food systems destroyed, coastal erosion and communities shattered—is immeasurable. For children, the trauma inflicted by witnessing and enduring the chaos of such disasters can lead to enduring emotional and psychological distress.

> ***"The effects of climate change on children in Vanuatu, is heartbreaking. Every cyclone, our classrooms are destroyed, our homes are flattened to the ground, and our infrastructure and essential facilities like hospitals and communication towers, are ripped apart."***
>
> - Vepaimele, 15 years old, from Vanuatu

Moreover, increased frequency of tropical cyclones can strain disaster preparedness and response systems, challenge the resilience of infrastructure, result in food and water insecurity and disrupt the fabric of social support networks. In lower income countries, where resources for recovery are often limited, the aftermath of a severe storm can set back development goals and deepen existing inequalities that negatively affect children.

The need to adapt to new levels of tropical cyclones requires forward-thinking in community safeguarding, infrastructure resilience, and child-focused emergency protocols. Investments in robust shelters, child-centred early warning systems, nature-based solutions and education on disaster response are crucial to shield children from the devastating impacts of such storms. Our current choices will define the future safety of children against increasing tropical cyclones, underscoring the urgency of committed adaptation and mitigation efforts.

Responding to tropical cyclones in the Pacific Islands[xxxviii]

In 2023, Tropical Cyclone Lola, a record-breaking category 5 storm, devastated parts of Vanuatu, particularly affecting children on Pentecost Island. The third severe Tropical Cyclone for 2023, Lola caused extensive damage to homes, schools, and critical infrastructure, leaving children vulnerable, with immediate needs for food, water, shelter, and education. In response, Save the Children deployed teams to conduct rapid assessments and support local emergency operations, establishing Child Friendly Spaces and distributing Non-Food Items (NFIs) like shelter tool kits and hygiene kits. They focused on restoring education by aiding in school cleanups, ensuring children could continue learning and receive the psychosocial support needed to recover from the disaster's impacts.

DROUGHTS

Droughts – characterised by prolonged periods of water scarcity – can have devastating effects on communities, impairing agriculture, depleting water resources that are essential for human survival, and forcing families to choose between their basic needs. The impact is particularly acute for children, as water scarcity can lead to dehydration, malnutrition, hindered development, and increased disease burden and mortality rates.

By adhering to the Paris Agreement target of limiting global temperatures to 1.5°C and preventing global temperatures from rising to 2.7°C as currently projected, we have the power to prevent 1.9 million children born in 2020 from experiencing unprecedented levels of drought.

The need for adaptation is paramount, particularly in areas that are significantly threatened by the prospect of drought. Strategies may include investing in drought-resistant crops, crop varieties and livestock breeds, strengthening urban food systems, improving water conservation techniques, and developing robust infrastructure to manage water resources more effectively. These measures can build resilience in communities, ensuring that children have access to the fundamental necessities for a healthy life, even in the face of climate stressors. The importance of recognising and implementing Indigenous and local knowledge and moving towards nature-based solutions that enhance biodiversity, diversify crops, and support ecosystems cannot be understated. By proactively adapting to the anticipated impacts of the climate crisis, we can create resilience against the harsh realities of drought, safeguarding children's future and well-being. However, due to limits to adaptation, diversification into off-farm livelihoods and even relocations might be necessary where farming is no longer a viable choice due to recurrent droughts.



Drawing by a child in Colombia, 2024.

Droughts act as threat multipliers, increasing existing threats and inequalities

Climate extremes, particularly droughts, have a profound and disproportionate impact on girls, exacerbating their vulnerability and significantly increasing the likelihood of gender-based violence as well as harmful coping practices such as early marriage. Droughts can devastate agricultural livelihoods, leading to crop failures that thrust families into poverty and disrupt girls' education. In parts of Ethiopia worst hit by drought and food insecurity, child marriage rates rose by 119% in 2022 compared to the previous year.[xxxix] As families grapple with food insecurity and economic strain, the prospect of child marriage emerges as a distressing coping strategy to alleviate financial burdens. Concurrently, the breakdown of social and protective networks during such crises increases the danger of gender-based violence and exploitation for girls.[xl] This often leads to decisions that result in early, forced marriages, thereby entrenching the cycles of poverty and gender inequality.[xli]

WILDFIRES

Wildfires are a growing global threat to ecosystems and human settlements, fuelled by climate change which intensifies heat and dry conditions that contribute to wildfire severity and frequency. The stakes for children are especially high as exposure to wildfires can lead to long-term respiratory problems[xlii], chronic health conditions, psychological trauma, and displacement. Beyond these immediate threats, wildfires compromise air quality, disrupt ecosystems, and undermine the security of children's homes and communities, threatening their right to a safe and stable environment.

"People claim that the climate crisis is going to be a major problem in the future, but what they don't realise is that it is happening right before their eyes."

– Vesa, 14 years old, from Albania

By steering away from the current trajectory towards a **2.7°C temperature rise by the end of the century and instead achieving the Paris Agreement's goal of limiting global warming to 1.5 °C, we could shield an estimated 1.5 million children born in 2020 from living with unprecedented exposure to wildfires.** This reduction in exposure is not just about avoiding direct harm from fire, smoke inhalation and long-term health consequences, but also about ensuring cleaner air and a more stable living environment for children to thrive in.

Integrated adaptation strategies for prevention, mitigation and response are crucial in the fight against wildfires. These include ensuring fire-resistant infrastructure with integrated passive fire protection, implementing effective land management practices to manage ecosystems, biodiversity and reduced fuel loads that drive fires. Educating communities and children about fire prevention, mitigation, response and safety is essential for empowering society to make safer decisions and strengthen preparedness. Child-focused adaptations are essential in reducing the specific risks that wildfires pose to children. Schools and childcare facilities, for example, must be equipped with clean air filtration systems, evacuation protocols, and emergency response plans designed with children's needs in mind. Such proactive measures can significantly reduce the risks that wildfires pose to the most vulnerable members of society, ensuring that children can grow up in a safer, more resilient world.

"Dry season is sometimes very long. When the rain does not come as it used to, people cannot plant. Because it is hard to plant, things will be hard, and people will die of hunger."

- 12-year-old-girl living in Nigeria

Migration and displacement due to the climate crisis leads to increased urban poverty and the growth of slums and informal settlements

One billion people reside in urban slums and informal settlements, including 350-500 million children. These figures are expected to triple by 2050, signifying a pressing crisis. The climate crisis, conflict and economic hardship are accelerating rural-to-urban migration. Up to 60% of refugees and 80% of internally displaced populations move to urban areas to settle in slums and informal settlements where housing is more affordable.[xliii] Due to their migrant status, they face several barriers to accessing basic services and facilities, including water, sanitation, and schools. High costs of urban living often force migrant children into harmful labour like waste picking, exposing them to toxic substances, violence and abuse. Informal settlements are poverty-prone settings with limited infrastructure, which makes them highly vulnerable to climate-related disasters such as floods, heatwaves and local hazards like fires. Exposure to disasters like flooding and drought triggers recurring intra-city displacements, which often disrupt jobs, livelihoods and schooling, deplete meagre resources, sever social networks and reduce coping abilities.


Photo: Hasan Iqbal/ Save the Children

PROMISING CHILD-CENTRED, LOCALLY LED, AND RIGHTS-BASED CLIMATE ADAPTATION PRACTICES

"We call on global leaders to invest in locally led adaptation and resilience projects that reflect the needs and voices of children and young people."

– Children from Somalia

While mitigation efforts remain crucial to limit the severity of climate change, centring children in climate adaptation is an existential necessity. This section explores promising responses and best practices that exemplify child-centred or child-responsive, locally led adaptation, offering a blueprint for a future where children can thrive despite challenges posed by a changing climate. These are based on a systematic scoping of evidence on the most promising responses to climate risks for children across six priority sectors for Save the Children's climate work, namely health, WASH (water, sanitation and hygiene), education, child protection, food security and livelihoods and social protection.

The interconnected nature of climate extremes means that building resilience for one hazard can have positive implications for reducing the risks associated with others. Creating a comprehensive protective environment for children's health and security is crucial, necessitating vulnerability risk assessments that employ a multi-hazard lens and design strategies tailored to the spectrum of risks faced by their communities, as promoted by Disaster Risk Reduction (DRR) principles.

Health

The climate crisis threatens children's right to health through the increased burden of disease, malnutrition, and mortality. It directly affects children's health through heat-related illnesses, increased asthma and pneumonia from air pollution, more vector-borne diseases like dengue and Zika due to changing rainfall, and malnutrition from reduced crop yields during droughts. Climate change also

"In my country, climate change is impacting almost every aspect of children's health and wellbeing, from their first days of life to adolescence. From rising temperatures affecting school performance, to droughts leading to undernutrition, floods resulting injuries and loss of life, and air pollution increasing adverse birth outcomes, the climate crisis is taking a toll on children's health."

- Nehad, 13 years old, from Yemen

exacerbates mental health issues[xliv] linked to rising temperatures, trauma from extreme events, and the loss of livelihoods and culture. Additionally, it strains health systems, making it harder to access essential services like family planning, immunisation, nutrition, and water and sanitation. This dual burden increases demand for health services while weakening the systems' ability to respond, hindering progress toward universal health coverage (UHC) for children. Urgent action is needed to build resilient health systems and empower communities to address climate and child-sensitive health risks. National and local plans must integrate the link between climate and health to guide effective action.

While there is little evidence on child-specific climate-driven health risks, there is diverse and globally distributed evidence available to inform health responses to climate risks, and this can be adapted to consider children's specific needs and vulnerabilities. Evidence-based interventions must be informed by a robust understanding of the relationship between climate drivers and health risks, the magnitude of these risks, and their distribution among the population. Significant efforts have been made to identify climate and health solutions that also address children's needs, and to develop child-sensitive national adaptation plans.

Responding to climate risks to child health in the Philippines

One particularly promising case in responding to health and climate risks for children is the 'Reach Health' project in the Philippines supported by USAID.[xlv] In 2017, this project employed disaster management principles to develop a Climate Risk Management (CRM) tool aimed at assessing and mitigating the greatest risks to the national health system, especially during extreme weather events like typhoons and volcanic eruptions. The CRM tool was integrated into government health systems to strengthen service delivery, ensuring greater impact and sustainability during heightened weather events. This integration was particularly beneficial for maternal and child health services, which often suffer disruptions and delays during such events.

The CRM assessment was instrumental in identifying the most vulnerable sites and age groups, monitoring local government compliance with decentralised disaster risk management plans, and ensuring access to family planning services and supplies at emergency evacuation centres. The positive experience with the CRM assessment led to visible ownership by the Philippine government, enhancing the resilience and responsiveness of health services during climate-related emergencies. This case exemplifies how integrating climate risk management into health systems can effectively safeguard child health and ensure the continuity of essential health services during extreme weather events.

Water, Sanitation, and Hygiene (WASH)

Access to clean water, sanitation, and hygiene is a fundamental right for children, essential for their survival and health. Climate change, through droughts, floods, storms, and water contamination, worsens the challenges of maintaining safe WASH access, highlighting the need for resilient services and education. Climate variability disrupts access to safe drinking water and sanitation facilities, disproportionately affecting children. Changing rainfall patterns and rising temperatures increase water-related diseases like diarrhoea. These issues require water specific interventions within broader climate strategies. Communities with inadequate infrastructure are especially vulnerable, leading to poor child development due to malnutrition and waterborne illnesses. In urban slums, a lack of proper water and sanitation infrastructure can impact child health, as for example overflowing drains damage or destroy homes and assets. Water scarcity also affects education, as children miss school to collect water or due to illness.

Most of the available evidence focuses on ensuring consistent access to safe water and developing climate-resilient and low-emission WASH infrastructure. Adaptive and shock-responsive systems in the WASH sector are essential for reducing climate risks and ensuring the wellbeing of children. These systems encompass various promising responses to climate risks for children: firstly, solar-powered water management systems; secondly, water harvesting and collection; and finally, small-scale social technologies.

WASH interventions are critical in enhancing community resilience to climate change, supporting sectors such as food and nutrition security, health and education. These initiatives are essential for protecting children's health and ensuring their continued development in the face of climate-induced challenges.



"My father lost his source of livelihood to flooding: his farmland became a river."

- 14-year-old-boy living in Nigeria

Photo: Ulet Ifansasti / Save the Children

Education

Every child has the right to education, yet climate change disrupts schooling through displacement, damages to school infrastructure and facilities, and key accompanying services (health, WASH, electricity, roads, early childhood care services etc.). Protecting this right means creating safe and resilient schools ensuring educational continuity during emergencies and integrating climate literacy into curricula to empower children as informed future stewards of the planet. The climate crisis also negatively impacts children's right to play by exacerbating environmental hazards that can limit safe outdoor spaces, increasing extreme weather events that restrict outdoor activities, and by contributing to resource scarcity and conflict, which can force children into labour or migration, depriving them of leisure and playtime. Yet play remains a vital avenue for learning at home with caregivers, in school and in other learning spaces, fostering essential skills and resilience in the face of environmental challenges.

In the education sector, a variety of promising responses to climate risks for children are being implemented, each contributing to strengthening resilience and equipping children with the necessary tools to face the climate crisis and environmental challenges. There are four approaches that emerge as promising: Including climate change into curricula; risk-informed education planning; sustainable, climate-resilient and risk-informed school structures; and finally, peer-to-peer learning.

Integrating climate change into educational curricula is a forward-thinking response that empowers students with the knowledge and skills to address climate and environmental challenges. In the Philippines[xlvi], following a devastating super typhoon, students and teachers, in collaboration with the Department of Education, developed lesson plans on disaster risk awareness. These plans were designed to democratise knowledge and empower students, transforming them into active participants in risk communication and disaster preparedness. Education is important both to ensure that children learn about climate change and to convert that knowledge into a capacity to be community leaders in climate change adaptation actions and decision making. This is particularly important in contexts where gender inequality can diminish access to education and opportunities for girls.

Risk-informed education planning, including DRR and Anticipatory Action strategies can enhance school safety and ensure the continuity of education amidst climate-induced disasters. In Bangladesh, a project focused on including children in the planning exercises of the school safety plan and making school safety plans child-friendly showed promise. The project also facilitated engagement with government officials for securing funding for school safety plans.[xlvii] This is a good example of how actively involving children in implementing school safety measures contributes both to making school and education more resilient and empowering children in disaster risk reduction.

Developing climate-resilient, sustainable school structures is a practical adaptation response to climate change in the education sector. Comprehensive approaches to safe schools should seek to incorporate the disaster risk reduction requirements, sustainable resource management, renewable energy generation, strengthened structural climate resilient infrastructure and enhanced climate-responsive or passive building performance to future-proof against an uncertain future.

"We ask that teachers, community leaders, and other adults receive training on climate change, biodiversity, and recycling, so they can provide us with better education."

– A group of 13 child activists aged 13-18 from Colombia demands.

Peer-to-peer learning initiatives make use of the power of children teaching each other about climate change adaptation. For instance, in Thailand and Indonesia[xlviii], children shared their experiences with flood risk reduction and climate change adaptation practices through creative means like films and puppet shows, demonstrating the potential for scalability and the importance of local leadership in building climate resilience.

Child Protection

As stated in GC26, environmental degradation, including the climate crisis, is a form of structural violence against children and can cause social collapse in communities and families. Children's right to protection is compromised by the climate crisis. Risks of violence, exploitation, abuse and neglect are heightened and the protective factors that keep children safe are eroded, especially during displacement and disasters. Upholding this right requires robust child protection systems that are responsive and resilient to the increased vulnerabilities caused by the environmental and climate crises. It also means providing access to services that support children's wellbeing and mental health in response to the trauma, anxiety or fear they may experience in relation to extreme weather events and the climate crisis. Linking social protection and cash payments in emergencies to other types of child protection support can help families avoid harmful coping strategies such as child marriage.

"Lots of large-scale disasters hit our district which causes people to become impoverished, and children like us are engaged in child labour."

- 13-year-old-boy, Bangladesh

In addressing climate risks related to child protection, two types of promising responses clearly emerge: Child Friendly Spaces (CFS) and Child Protection System Strengthening, which includes building national capacity and providing technical support in the development of child protection systems which are climate informed and resilient. While the evidence for their effectiveness in the context of the climate crisis is still emerging and mostly qualitative in nature, these approaches have been implemented with positive outcomes and are well-established in other emergency settings. Child Friendly Spaces offer children a sense of normalcy and safety in the midst of chaos caused by climate-induced hazards or other emergencies. Safe spaces can equally help to promote the mental health, well-being and resiliency of children and provide information and education on climate change. These spaces are essential in areas or situations where children are at risk of exploitation, trafficking, violence, or abuse, particularly in the context of displacement caused by climate extremes.

Complementary to this, Child Protection Systems Strengthening focuses on fortifying the mechanisms and structures that safeguard children. This involves enhancing the skills and resources of local systems to better respond to heightened protection risks in emergencies that affect children, and to ensure that services are climate-resilient.[xlix] Building national capacity is a critical component of this approach, ensuring that child protection systems and the social service workforce are sustainable and resilient to

the challenges posed by the climate crisis. There is also scope to develop synergies with community-based child protection mechanisms; in particular, those mechanisms that are engaged with disaster risk reduction and other climate change adaptation programmes.

There are emerging practices and interventions linking climate change and child protection through Child Protection Anticipatory Actions, with an intervention matrix highlighting activities across multiple hazard types and multiple protection risks. Moreover, the Centrality of Protection initiatives ensure that protection is mandatorily mainstreamed across all sectors and integrated as possible, including climate change adaptation programmes.

Despite these promising practices there remains an ongoing need for more rigorous research and development. This will help to solidify the effectiveness of these approaches and to embed them as core components of climate risk solutions for children, particularly in settings affected by displacement and humanitarian crises.

Food Security and Livelihoods

Climate change poses a direct risk to children's right to food and the livelihoods of their communities. Ensuring climate-resilient and regenerative food systems with food supply chains, food environments and consumer behaviours that deliver healthy diets for all, particularly children, is critical to fulfilling this right and preventing malnutrition and poverty.

Failing to prioritise good nutrition also violates children's rights. Nutrition is a precondition for sustainable, social, economic and human development. The very existence of undernutrition is a violation of the human right to food. Children's right to health and education are undermined when malnutrition is endemic.[i]

> ***"Those who rely on the land to provide an income and nutritious food on the table, are deeply affected. This negative impact on agriculture affects our entire economy and nation."***
>
> – Vepaimele, 15 years old, from Vanuatu

In comparison to other sectors, there is much documentation and evidence on promising responses to climate risks for children in the sector of Food Security and Livelihoods, especially in Africa. A variety of responses have been implemented and documented. While children depend on and often greatly benefit from actions aimed at promoting resilient food sources and livelihoods, these are rarely child-centred but more focused on communities or families. The following paragraph describes such a response that positively effects children.

One of the most well-documented types of responses is focused on building climate resilient livelihoods. This approach encompasses a range of activities, from income diversification to engaging with agribusiness and markets, as well as specific adaptations in agricultural and livestock practices, aiming to make them more climate resilient. A study on the relationship between child growth and crop diversification in rural Ethiopia underscores the positive impact crop diversification has on child growth to combat the effects of climate change. Boys and girls were affected differently by crop diversification; girls experienced a reduction in stunting by 8.3% and both boys and girls experienced a decrease in wasting by 11%.[ii]

Climate-resilient agriculture is another key response to ensure sustainable and adaptable food production, alongside improved livestock management practices to safeguard livestock farming against climate extremes or climate-resilient aquaculture systems to diversify food sources. Furthermore, cash-based interventions, such as Cash for Work or Cash Voucher Programming, can be employed to maintain household purchasing power during climate-induced stresses. Support and training for young farmers to employ agroecological farming techniques are delivered through initiatives like Farmer Field Schools, promoting the adoption of resilient agricultural practices.

With support from the International Fund for Agricultural Development (IFAD), the Paulo Freire Project in Brazil's northeastern region that is historically plagued by severe droughts reached 50,900 families. In addition to women, it also specifically targeted young people between 15 and 29 years of age offering them technical courses geared towards the development of entrepreneurship skills and gaining access to land. The project led to the widespread adoption of agroecological farming techniques by 23,500 family farms and saw a remarkable increase in income-generating activities among 61% of the women involved.[iii]

Social Protection and Anticipatory Action

Social protection systems are crucial for shielding children from the socio-economic impacts of the climate crisis, supporting their access to health, education, and nutrition, and reducing protection risks. Our research shows that 774 million children live in poverty and face high climate risk[liii], highlighting that poverty increases vulnerability to climate disasters.[liv] These challenges are rooted in systemic inequality and a global financial system that stacks the odds against low-income countries and families. Strengthening child-responsive social protection ensures that families can withstand climate events without compromising children's rights or resorting to negative coping strategies like withdrawing from school or incurring debt. Child-sensitive social protection fosters resilience, improves educational and healthcare access, and supports sustainable livelihoods.[lv] Cash transfers are a key component, helping families maintain food consumption and access essential services. Similarly, anticipatory and shock-responsive systems are vital for addressing climate risks, aiming to reduce impacts through pre-emptive actions and integrating social protection with climate risk management.

> ***"We fled from our homes to this camp, and we have been here for many months due to floods. Our properties including houses were washed away and even our school materials, food, bedding, clothes. Climate change has contributed to all the losses."***
>
> - Child living in a camp for internally displaced people in Malawi

With limited evidence focused on child-responsive social protection, the effectiveness of social protection initiatives seems to vary based on the severity of climatic events, the maturity of the social protection system, and available resources. This variability highlights the need for a holistic approach that integrates social protection with Community Risk Management to enhance resilience among vulnerable communities. Known as 'adaptive social protection,' this approach addresses the interplay between social and environmental factors and aims to tackle the multifaceted challenges posed by climate change. Thorough and rigorous assessment of adaptive social protection is necessary to inform evidence-based policymaking and improve the resilience of vulnerable communities and children to climate-related shocks. Investments should also explore links between climate and social protection beyond cash transfers, ensuring that adaptive social protection is child-responsive.

The Social Cash Transfer Pilot Programme in Ethiopia, supported by UNICEF, is a child-responsive initiative that has been rigorously evaluated to understand its impact on reducing the effects of weather shocks, such as droughts, on household welfare in sub-Saharan Africa.[lvi] The study focused on how these cash transfers help rural households to manage drought impacts without harming children's welfare, particularly in terms of food and nutrition security for children aged 12 and below. The programme provided cash transfers to vulnerable households, including those with children, elderly individuals, and persons with disabilities, aiming to improve their quality of life.



Photo: Sacha Myers / Save the Children

Responding to climate extremes through anticipatory action in Bangladesh

Bangladesh has become increasingly vulnerable to climate-related risks, with the frequency and intensity of disasters rising over the past two decades. This trend escalated during the 2023-2024 El Niño event, which brought record high temperatures, reduced rainfall, prolonged dry spells, and intensified cyclone activity. In response, Save the Children Bangladesh activated early action protocols for a cold wave in January 2023, a heat wave/drought in April, and Cyclone Remal in May and Landslide in August 2024.

These protocols, developed and tested collaboratively with children, communities, partner NGOs, and disaster management authorities, integrated tailored early warnings and triggers backed by the Bangladesh Meteorological Department and the Regional Multi-hazard Early Warning System for Asia. As a result, thousands of families received timely early warning messages, support for safe evacuation, shelter, and clean water. These actions enabled children to continue their education, and helped their caregivers to maintain good health and an uninterrupted livelihood despite the extreme weather, underscoring the success of anticipatory action in protecting vulnerable populations

The findings revealed that cash transfers significantly reduced negative effect of drought on food consumption among beneficiary households, especially for children. However, the effectiveness of these transfers varied with the severity of the drought. While the transfers helped households avoid food consumption-destabilising coping strategies during mild droughts, they were insufficient to protect against severe droughts, where households had to resort to measures that negatively impacted food consumption. Thus, while cash transfers provided a buffer against climate risks, they are often not set at sufficient financial sums to offer a comprehensive solution for severe weather shocks on children's welfare.



Photo: Narindra Rakotonanahary / Save the Children


Photo: Hasan Iqbal/Save the Children

FINANCING CHILDREN'S CLIMATE RESILIENCE AND DEVELOPMENT

Children in lower-income countries face disproportionate impacts from the climate crisis. Often these countries lack the necessary resources to finance their mitigation and adaptation goals or to address the rapidly escalating losses and damages it causes. Many lower-income, climate-vulnerable countries are also not on track to meet their SDG targets by 2030 – targets that are critical for enhancing the adaptive capacity and resilience of children and their families to the climate crisis and minimising losses and damages.

The SDG financing gap has grown by 56% since 2020.[lvii] The adaptation finance needs of lower-income countries are estimated at $215–387 billion per year up to 2030.[lviii] Similarly funding needs for loss and damage are estimated to be at least $250 billion per year by 2030.[lix] Most climate-vulnerable countries are also experiencing debt distress or are at risk of it[lx], with low-income countries spending twice as much in debt repayments as they receive in climate finance.[lxi] Double counting ODA as climate finance has been widespread, creating a misleading picture of actual financial support provided to lower-income countries.[lxii]

High-income countries and historical emitters have a moral and legal responsibility to support lower-income countries in their efforts to tackle the climate crisis and achieve the SDGs. This includes providing their fair share contributions to the New Collective Quantified Goal (NCQG) on climate finance of mobilising at least $300 billion annually by 2035, agreed at COP29, and delivering it primarily as grants and highly concessional finance, particularly for adaptation and loss & damage, with climate justice and child rights as the key guiding principles. These flows must not displace development finance for poverty eradication and sustainable development in lower income countries. New and innovative sources such as redirecting fossil fuel

"We are witnessing the loss of homes, schools, and essential community spaces. We call on the international community to commit to loss and damage financing, ensuring that countries like Somalia can rebuild and protect future generations from irreversible harm"

– Children from Somalia

subsidies to climate action and taxes and levies on high polluting industries such as fossil fuels, shipping and aviation, in line with the 'polluter pays' principle also have huge potential to unlock significant public funding to support lower-income countries in averting, minimising and addressing losses and damages from the climate crisis.

Mainstreaming children's rights and needs in decision-making on financial flows is equally important to address their distinct and heightened vulnerabilities and empower them to be agents of change. The first-ever child-focused review of international climate finance showed that until 2023, **only 2.4% of the funding from major Multilateral Climate Funds is allocated to projects that include child-responsive activities.** However, even this small percentage[3] overstates the focus on children, as such activities are often not the main objective of the projects.[lxiii] Some funders acknowledge this gap, with the Green Climate Fund, for instance, taking active steps to increase child-responsive climate financing including through their partnership with Save the Children.

With climate finance reaching local levels and fragile and conflict-affected states remaining worryingly low[lxiv], improving the accessibility of climate finance is paramount too.[lxv] Climate finance providers must reduce the barriers to access climate finance by simplifying and streamlining complex application, accreditation and reporting processes, addressing co-financing requirements, and devolving decision-making to the lowest appropriate level in a way that gives local institutions, local NGOs, and communities more direct access to finance and supports the long-term development of local governance processes, capacity, and institutions.

It is important to note that current levels of finance flows and pledges by high-income countries to support lower-income countries' SDG and climate actions are insufficient. For instance, the decision at COP29 for high-income countries to take the lead in mobilising at least $300 billion annually by 2035 in lower-income countries falls far short of the climate finance needs of lower-income countries.[lxvi] This necessitates reforms in the global financial architecture to unlock the financing needed to address the climate and SDG finance gaps.

Major shareholders in IFIs are well-positioned to pull levers that can create systemic change in the global financial architecture, resulting in greener, fairer and more just economies for everyone. This entails reforming the international financial architecture and Bretton Woods institutions (including World Bank, International Monetary Fund and other MDBs) to ensure they provide affordable and appropriate financing to lower-income countries without creating unsustainable debt burdens or imposing conditions that threaten or undermine country ownership. This, in turn, demands significant increases in capital and grant contributions, alongside enhancing the voice and agency of client countries to enable MDBs to better serve the needs and priorities of children and communities. Key shareholders must be champions for this change. These efforts must be complemented by reforms to the global system for governing debt and tax, and integrated approaches to scaling up domestic public resources through taxation and economic development that are grounded in shared prosperity and sustainability.[lxvii]

> ***"We demand that resources be distributed fairly, to help the most vulnerable places and groups of people and the areas most affected by climate change, because we all deserve a better life and to have our rights respected."***
>
> - Children from Colombia

3 The financing needed to make all child-critical social sectors climate-resilient and environmentally sustainable has not yet been fully costed which makes prescribing an ideal figure for child-responsive climate finance challenging. However, it is evident that many of the sectors essential for children's wellbeing have been under-prioritised in climate finance flows. For example, out of the 591 projects approved by key multilateral funds from 2006 to 2023, only one had education as its primary objective. Additionally, there is the issue of whether children are being sufficiently considered in climate programmes focused on these sectors. While 35% of 591 projects incorporated interventions to strengthen the climate and disaster resilience of essential social services anticipated to provide direct benefits to children, majority of such projects fail to explicitly consider or involve children.



Photo: Save the Children

ANNEX

Recommendations

Child rights mainstreaming in climate action

For governments to* …

*Including as member states/Parties of multilateral climate processes

- **Recognise children as equal stakeholders and key agents of change** in addressing the climate and environmental crisis, including by establishing child-friendly mechanisms and platforms to facilitate child-led solutions and children's formal engagement in climate policymaking.
- **Respect, protect and fulfil the child right to be heard seeking and enabling children's meaningful participation through safe and inclusive spaces** that engage them across all sectors, ensuring their voices are integral to climate policy-making processes. Protect children from reprisal by implementing confidentiality measures and anti-retaliation policies. Ensure access to justice and remedies for child rights violations resulting from climate change by including complaint mechanisms that are child-friendly, gender-responsive and disability inclusive by educating children about their rights, including their right to a clean, healthy and sustainable environment.
- **Implement General Comment No.26 on Children's Rights and the Environment with a Special Focus on Climate Change** to ensure a child rights-based approach to climate action and the respect, protection and fulfilment of children's right to a clean, healthy and sustainable environment (UNGA resolution 76/300) at national and international levels. This includes addressing not just climate change but also biodiversity loss and pollution (i.e. the "triple planetary crisis").
- **Utilise disaggregated data, at a minimum by age, gender, and disability status**, in order to capture the specific impact of the climate crisis on different groups of children. Weaknesses in data collection and over-reliance on averages fail to capture the impacts on children, particularly girls and socio-economic groups affected by inequality and discrimination.
- **Systematically assess the impact of climate related laws, policies, financing, and programmes on different groups of children**, and make these assessments publicly available. Child rights impact assessments help make the impact on children visible, inform more effective and child-sensitive policy-making, and ensure that policies and other actions do not harm children.
- **Invest in research on best and new practices that build child-centred climate resilience** in the face of inevitable impacts and future risks, including through studying and building the evidence and learning base for child-responsive, locally led adaptation measures.

Mitigation

For governments to …

- **Take ambitious and urgent action now to limit warming to a maximum of 1.5°C above pre-industrial levels.** Governments, with high-income and historically high-emitting countries leading the way, must redouble efforts to meet the goals of the Paris Agreement by increasing the ambition articulated in Nationally Determined Contributions (NDCs), implementing them as well as drastically reducing emissions in line with the principle of common but differentiated responsibilities.
- **Urgently phase out fossil fuels and invest in renewable energy**. Implement a rapid and equitable phase-out of fossil fuel use, subsidies and financing, and invest in renewable energy to protect children and address poverty and inequality, ensuring that the transition does not harm the most impacted communities.
- **Prioritise children's rights in mitigation actions.** Enhance the focus on children's rights, needs, opportunities, and perspectives in mitigation efforts, including through the Sharm el-Sheikh mitigation ambition and the revision of Nationally Determined Contributions (NDCs), to leverage co-benefits for children's survival, development and health. This includes ensuring that children are not negatively impacted by human responses to the climate crisis.
- **Phase out the financing of fossil fuels.** Implement legal provisions for financial institutions to stop the financing of fossil fuel expansion, and adopt a rapid and well-planned transition strategy from the fossil fuel sector. Science-based, just and time-bound low carbon transition plans that are consistent with a 1.5°C temperature goal and respectful of child rights should be mandatory for financial institutions to adopt, implement, and consistently monitor and revise.
- **Reduce emissions in public infrastructure.** Increase attention to emissions reductions in social sector infrastructure and services, particularly in sanitation and wastewater treatment, to address significant sources of methane and nitrous oxide.

Just transitions to low carbon, climate-resilient and sustainable development

For governments to…

- **Embed child rights into policies, plans and indicators for just transitions.** This involves ensuring that children's rights are used as a guiding framework and are visibly integrated into just transition financing and planning, including building the climate resilience of the services children depend on, and creating decent work opportunities in the green economy for adolescents, youth and affected persons.
- **Ensure that children's rights are not undermined by climate change actions,** and that communities most impacted by inequality and discrimination are not further disadvantaged by the transition towards low-emission, climate-resilient and sustainable economies, but rather that they benefit from them.
- **Develop policies, laws and budgets to promote low-emission, climate-resilient and sustainable economies that tackle inequality and serve society as a whole**. The urgent re-wiring of our political and economic systems must include national government budgets and public investments that reduce adverse climate risks and are transparent.

For the private sector to…

- **Jointly address environmental and social risks across their business, including when implementing or financing just transition plans, while ensuring** that human rights impact assessments include child rights impacts linked to climate response measures.
- **Develop partnerships and initiatives to integrate children's rights into sustainable supply chains** by collaborating across industries, governments, academia, trade unions, and civil society to share knowledge and best practices. This will enhance understanding of local challenges, risks and opportunities, prevent workforce disruptions, and strengthen structures to uphold children's rights. It ensures that private sector climate adaptation actions are equitable and uphold the principle of "leaving no one behind". Additionally, it allows investors to measure their positive impact on children, supporting a systems approach to their rights and wellbeing.

Adaptation and anticipatory action

For governments, multilateral and bilateral donors, and the private sector to…

- **Substantially increase adaptation financing.** This includes leveraging innovative finance mechanisms to address the significant adaptation finance gap and ensure that more climate finance reaches the local level to support child-responsive, locally led adaptation approaches.

For governments to…

- **Ensure continuous access to essential services.** Implement urgent, child-centred adaptation measures to ensure that children maintain access to essential services such as health, education, nutrition, water, sanitation and child protection before, during, and after climate-related shocks. This includes developing social protection systems that are shock-responsive and adaptive.
- **Develop Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs) that respond to, the disproportionate impacts of climate change on children** at all stages of the policy cycle (assessment, planning, implementation and monitoring & evaluation), including through the use of age-, gender- and disability-disaggregated and child-specific data. This data should also be used in adaptation communications and national reporting to ensure that adaptation measures are effectively addressing the needs of children.
- **Integrate climate risks and goals related to education, health, child protection, social protection and other child-critical social services in National Adaptation Plans (NAPs)** and Nationally Determined Contributions (NDCs).
- **Adopt participatory and inclusive approaches.** Use a participatory approach to adaptation and anticipatory action that includes the perspectives of children, especially those affected by inequality and discrimination. To ensure that solutions are community-driven and inclusive, these should be guided by the principles for locally led adaptation and make child-centred anticipatory action core to humanitarian, development and climate adaptation investments.
- **Co-develop and implement child-responsive climate services.** Recognise and develop child-responsive climate services as essential for informing climate-resilient and child-centred development investments. This includes acknowledging the differential impacts of climate extremes on children and enabling their active participation in addressing climate-related risks, with an urgent focus on including children, youth, and the education sector in global and national frameworks for climate services.
- **Enhance child participation in early warning systems.** Enable children to actively participate in extending the reach, relevance and accountability of early warning systems, including initiatives like the United Nations Secretary-General's Early Warnings for All initiative, to ensure these systems effectively address climate-related risks for children.

Climate finance

For governments, multilateral and bilateral donors, and the private sector to…

- **Enhance the child-responsiveness of climate finance** through prioritising investments that strengthen the resilience of child-critical social services such as health, education, social protection and child protection; consider children's distinct and heightened needs meaningfully; and empower children to be agents of change with a particular focus on reaching children most at risk.
- **Deliver the new climate finance goal** of at least $300 billion by 2035 primarily in the form of grants and highly concessional funding for countries that are most affected by the climate crisis but least able to cope with and address its impacts, placing children and child-critical social services at the forefront of such efforts. Climate funding towards the $300 billion goal should prioritise adaptation, and be accompanied by an increase in official development assistance (ODA) in real terms.
- **Increase ODA for essential child services**, including education, health and nutrition, social protection and child protection to strengthen the resilience of children amidst the climate crisis.
- **Urgently provide new and additional, grant-based funding, including through fairly implementing 'polluters pays' taxes to finance the rapidly escalating losses and damages** from the climate crisis and prioritise the recovery and rebuilding of child-critical social services.

- **Reform the international financial architecture,** including Multilateral Development Banks, to enhance the voice and agency of client governments and support climate and SDG action in lower-income countries, without locking them into debt traps or imposing conditionalities that threaten or undermine country ownership.
- **Improve access to climate finance** by simplifying complex accreditation and approval processes; devolve decision-making to the lowest appropriate level by giving local institutions, local NGOs and communities more direct access to finance; and support the long-term development of local governance processes, capacity and institutions.
- **Prioritise education, health and nutrition, child protection, social protection and other child-critical social services in climate finance.** Include investments in services essential to children in climate finance mechanisms, such as the Fund for Responding to Loss and Damage and multilateral climate funds, to ensure that children's rights to education, health and protection are adequately supported in addressing climate change impacts.

Education

For governments to…

- **Advance and implement climate-education commitments** by actively participating in the Building the Climate Resilience of Children and Communities through the Education Sector (BRACE) Roadmap process and implementing the high-level commitments under the Declaration on the common agenda for education and climate change at COP28. This includes endorsing, implementing and championing the Comprehensive School Safety Framework to ensure coordinated and evidence-based approaches across ministries.
- **Integrate climate resilience in education planning.** Mainstream climate resilience across education sector plans, school improvement plans, and school safety plans. Embed child-responsive, evidence-based climate-resilient education approaches in NAPs, NDCs, and UNFCCC processes to ensure comprehensive integration.
- **Enhance reporting and accountability.** Support adjustments to international climate finance reporting to reflect dual-benefit investments in climate change and education. Implement a standardised approach for monitoring, reporting, and accountability of climate-related finance in the education sector.

Health

For governments to…

- **Invest in health, nutrition and WASH services that are climate resilient, low carbon and child–sensitive:** prioritise building climate-resilient and low-carbon health systems with a strong primary health care approach.
- **Integrate health considerations into climate strategies and vice versa; and strengthen cross-sectoral collaboration,** with health, environmental, and other relevant sectors that improve health while reducing greenhouse gas emissions through partnerships.
- **Prioritise community and children's engagement** in the design, monitoring and implementation of climate-health responses and decision-making processes.

Nutrition

For governments to…

- **Generate more evidence on the impacts of climate on maternal and child nutrition;** across health systems, food systems and social care pathways – on how to protect and improve maternal and child nutrition and resilience in the context of a changing climate.
- **Strengthen integrated climate and nutrition plans and financing.** Strengthen national climate, health, food and nutrition plans and international frameworks to enhance integrated climate and nutrition action, and mobilise multilateral and bilateral financing to achieve climate and nutrition co-benefits.

- **Invest in nutrition interventions for climate resilience and innovation.** Government policies, plans and programs must deploy locally led adaptation solutions to enhance the climate resilience of food supply chains, food environments and consumer behaviour. Continue evidence-based, multisectoral nutrition interventions, while also adapting approaches to be more climate-resilient. Invest in strong early warning systems and leverage technology to support real-time reporting and data analysis. Prioritise locally led innovation and Indigenous solutions to enable families, communities, providers and systems to anticipate and recover from climate shocks and their effects on nutrition.

Child protection

For governments to…

- **Strengthen and build the resilience of child protection systems.** Services must be inclusive, and prioritise the needs of the most vulnerable, including displaced children and their families; they should be shock-responsive, and adaptable to disasters.
- **Integrate child protection in climate and disaster strategies**. Ensure that adaptation and disaster risk reduction plans and strategies at all levels involve children, and consider child protection risks and protective factors and the impacts on children's mental health arising from climate-related shocks and stresses. Climate-related strategies and plans should integrate measures to prevent and respond to violence against children, including physical, sexual and emotional violence, child marriage, child labour, child recruitment and use, and child trafficking. Child protection measures must be mainstreamed within anticipatory action.
- **Strengthen research on links between climate change and child violence against children.** Strengthen the evidence base to improve our understanding of the links between climate change and violence against children through an age, gender and disability inter-sectional lens.

Social protection

For governments to…

- **Scale up child-sensitive social protection**, with the ambition towards the progressive realisation of universal child benefits, to protect children from lasting harm from climate and other shocks at a critical stage in their human development.
- **Enhance social protection systems** to cover the most vulnerable families; ensuring integration with national climate risk management systems. These systems must also be anticipatory and shock-responsive – allowing for efficient and effective additional payments to help families cope before, during, or after climate related and other shocks – and complemented by children's access to quality education, child protection services, and primary health care services that are free at the point of use, as part of Universal Health Coverage.
- **Support young people, their families and communities to advocate for themselves** in demanding adequate and comprehensive social protection.

Urban

For national, local and city governments to…

- **Transform slums to living places that are child-responsive and climate-resilient.** Increase commitments for child-responsive, climate-resilient slum transformation, adequate and affordable housing, and infrastructure to protect the almost 500 million children growing up in slums.

For civil society and city governments to…

- **Coordinate multi-sector efforts to enhance urban child resilience**. Gather relevant stakeholders, data and technology in cities to integrate efforts across sectors – including health, urban planning, water and sanitation, waste management, housing, transportation and education – to create environments that mitigate risks and build resilience for urban children.
- **Invest in child-responsive, climate-resilient urban planning.** According to one UN estimate, 75% of urban infrastructure needed by 2050 is yet to be built. Invest in child-responsive and climate-resilient urban planning and design to ensure new city neighbourhoods, schools and public spaces are inclusive, sustainable and future-ready.

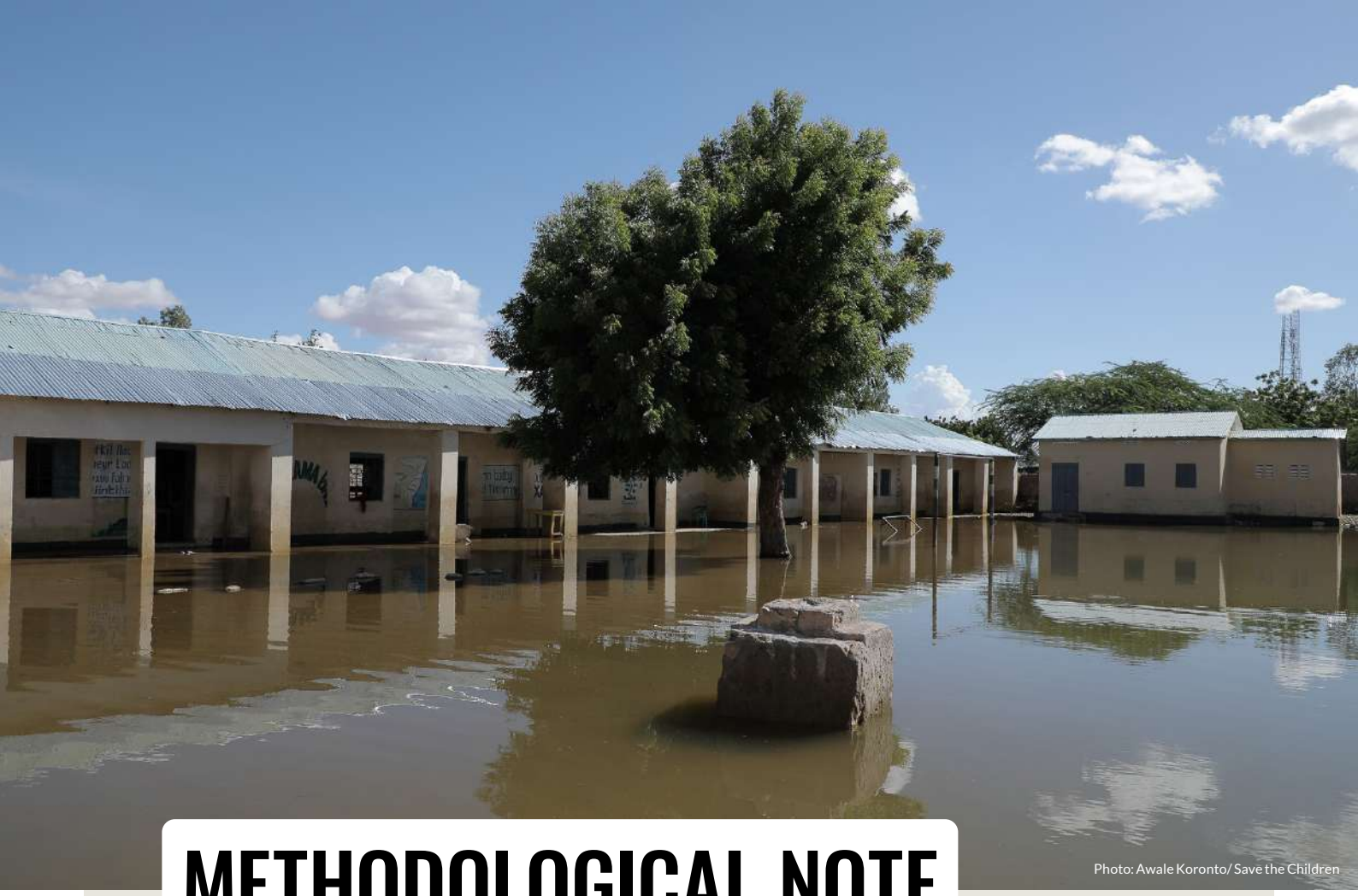


Photo: Awale Koronto/ Save the Children

METHODOLOGICAL NOTE

This report is a collaborative product, with significant contributions from researchers from Vrije Universiteit Brussel, Save the Children experts, and a child reference group of 28 children from Colombia, Vanuatu, New Zealand, Ukraine, Albania, Sierra Leone, China and Yemen who ensured a comprehensive and child-centred perspective on climate action. The findings on climate risks and its impacts are based on five data analysis sources from Vrije Universiteit Brussel, including newly generated simulations of climate impacts across six climate extremes (heatwaves, crop failures, river floods, tropical cyclones, droughts, wildfires), and global mean temperature scenarios based on the Intergovernmental Panel on Climate Change (IPCC) 6th Assessment Report Scenario Explorer.[lxviii]

Moreover, country-level life expectancy provided by the United Nations World Population Prospects, population reconstructions and projections by the Inter-Sectoral Impact Model Intercomparison Project (ISIMIP) database, and country-scale cohort size data provided by the Wittgenstein Centre for Demography and Global Human Capital's Data Explorer were used in the analysis. The research methodology integrates these diverse datasets to calculate the lifetime exposure of people to climate extremes in 177 countries, across regions and globally. This is achieved by mapping the projected climate extremes along various global mean temperature trajectories, which are then crossed with life expectancy and population data to calculate conservative estimates of the lifetime exposure to climate extremes for different generations of people.

The context for this analysis is provided by the initial set of climate action commitments (Nationally Determined Contributions) announced following the Paris Agreement. The findings highlight intergenerational inequalities in exposure to climate extremes and underscore the critical need for robust climate action to minimise impacts on children and future generations. The extent to which current and future generations will experience a warmer and, as a result, a different world with greater climate impacts depends on the choices we make now, which will shape future greenhouse gas emission scenarios, ranging from the optimal situation of very low emissions to the extreme case of very high emissions.[lxix]

The analysis refers to three global warming scenarios by the year 2100, compared to pre-industrial temperatures:

- 1.5°C scenario, which aligns with the ambitious objective of the Paris Agreement and requires significant and rapid reductions in greenhouse gas emissions.
- 2.7°C scenario, which reflects the expected heating based on current mitigation policies and pledges, as estimated by the Climate Action Tracker.[lxx]
- 3.5°C scenario, a near-worst-case outcome that assumes continued high emissions and insufficient mitigation efforts.

These scenarios are crucial for modelling and comparing the potential long-term impacts of the climate crisis on populations, and emphasise the urgency of taking action to mitigate future climate risks.

To assess how socio-economic vulnerability exacerbates unprecedented lifetime exposure to heatwaves, the study employs two indicators. In addition to gross domestic product (GDP), the analysis relies on the Global Gridded Relative Deprivation Index (GRDI), which rates multidimensional deprivation and poverty through a combination of factors including the ratio of children to working-age population, infant mortality rates, human development levels, and the contrast between rural and urban populations. While these indicators do not directly account for potential adaptations to climate change, they provide insight into the current capacity of populations to adapt. The study then maps the unprecedented exposure to heatwaves of the 20% most and least vulnerable as indicated by GDP and GRDI across the three global warming scenarios mentioned above for different generations.

It is important to acknowledge that climate and impact models such as the ones this analysis is based on – while invaluable for projecting future climate scenarios – have inherent limitations and uncertainties. These models produce simulations that rely on a mathematical representation of the climate that is limited by the models' spatial resolution, and what these attempt to project into the future is historical data that may have gaps and may not fully capture future climate conditions. The rate of climate warming is influenced by complex interactions between emissions and various processes that can either mitigate or amplify atmospheric climate cycles. Scientists remain uncertain about several factors, such as the interaction between water vapour and aerosols in cloud formation, which may have cooling or warming potential, and they cannot predict natural phenomena like volcanic eruptions. Additionally, potential tipping points in the climate system and the unpredictable nature of human behaviour add layers of uncertainty. These complexities highlight challenges in predicting precise climate scenarios especially over the longer-term, underscoring the need for adaptive and flexible climate strategies.

The findings on promising responses to climate risks for children and good practices in child-centred or child-responsive, locally led adaptation are based on a structured scoping of evidence. This review focused on the most promising responses to climate risks for children across six priority sectors for Save the Children's climate work: health, WASH (water, sanitation and hygiene), education, child protection, food and nutrition security and livelihoods, and social protection. It was conducted by Lezlie Morinière and Charlotte Gendre of Integrated Risk Management Associates LLC (IRMA).



Photo: Angela Ponce / Save the Children

ADDITIONAL DATA

Children born in 2020 facing unprecedented lifetime exposure to six different climate extremes in absolute numbers and percent

Climate extreme	Number of children affected (millions) at 1.5°C	% of children affected at 1.5°C	Number of children affected (millions) at 2.7°C	% of children affected at 2.7°C	Number of children affected (millions) at 3.5°C	% of children affected at 3.5°C
Heatwaves	62.11	51.70	99.97	83.07	110.77	92.20
Crop Failures	23.30	19.39	31.03	25.83	34.85	29.01
River Floods	10.13	8.43	14.97	12.46	16.42	13.66
Tropical Cyclones	6.90	5.75	11.75	9.78	12.39	10.32
Droughts	6.41	5.33	8.28	6.89	9.08	7.55
Wildfires	8.98	7.47	10.44	8.69	11.56	9.62



Photo: Khalil Ashawi / Save the Children

GLOSSARY

Anticipatory action

Acting ahead of a predicted hazardous event to prevent or reduce impacts on children and communities before they fully unfold. Anticipatory action is important in establishing the systems and capacities for addressing predictable climate-related risks, particularly for extreme weather events that are projected to increase under climate change. It can thus be seen as part of climate adaptation and as an important part of a wider disaster risk management approach.

Child-centred climate action[lxxi]

Child-centred climate action refers to adaptation and disaster risk reduction strategies that specifically focus on reducing the vulnerability of children to the impacts of the climate crisis. It also refers to the embedding of children's rights in the transition to low-emission and climate-resilient economies. This approach acknowledges that children are one of the largest and most at-risk groups affected by the climate crisis, and therefore prioritises their needs and rights in climate-related policies and programmes. It involves both direct interventions that target children's needs (child-targeted policy and programming), and initiatives that actively involve children in the planning and decision-making processes. The goal is to ensure that children's health, education, wellbeing and protection are safeguarded against the risks presented by climate change, while also empowering them as agents of change within their communities.

Child-responsive climate action[lxxii]

Child-responsive climate action is defined by the extent to which climate actions, policies or mechanisms uphold the rights of children in all their diversity, including by:

- Explicit and meaningful consideration of children in project objectives, activities and expected outcomes.
- Strengthening the resilience of essential social services that children depend on, and disaster risk reduction.
- Including children in all their diversity as important stakeholders, supporting their agency and participation.

Climate extremes[lxxiii]

In this analysis, we consider six extreme climate event categories: wildfires, crop failure, droughts, river floods, heatwaves, and tropical cyclones. These six extreme event categories are selected because we know from existing studies that these climate hazards (i) will increase in frequency, intensity, and/or duration with projected climate change, (ii) can lead to strong impacts when they occur, and (iii) can be tackled comprehensively in modelling frameworks.

Climate justice

Climate justice is the clear recognition that climate change does not exist in isolation as an environmental issue, but is also a social and political one that affects different communities, especially children in LMICs and those impacted by inequality and discrimination, in unequal and unfair ways (e.g. linked to social systems, class, race, gender, geography, access to justice and political influence, colonialism, age etc.). At its core, climate justice demands that the countries and companies that have contributed the most to the climate crisis take meaningful responsibility for their actions, provide adequate support to the countries, children and communities that are most vulnerable to climate change risks, and lead the way in a just transition – for example by paying their fair share towards climate finance and loss and damage in ways that protect children's rights (e.g. child-responsive climate finance), or promptly phasing out the use and subsidising of fossil fuels. Climate justice also requires that children have a voice and a clear role in shaping the policies and actions that affect their present and future wellbeing and rights, as outlined in the UN Convention on the Rights of the Child and GC26. It is about ensuring that all children have the right to a safe, healthy, and prosperous life on a thriving planet. In this analysis we consider three main aspects of climate injustice – intergenerational, geographical and socioeconomic.

Climate resilience[lxxiv]

Climate resilience refers to the capacity of individuals, communities, organisations and natural systems to anticipate, prepare for, respond to, and recover from climate-related disturbances. It involves adapting to changing climate conditions, withstanding shocks, and transforming living conditions to maintain and improve quality of life in the face of stressors and disruptions brought about by climate change.

Climate risk[lxxv]

Climate risk refers to the potential for adverse consequences arising from both the direct impacts of climate-related hazards and the indirect impacts stemming from human responses to climate change, such as maladaptation and the clean energy transition, which can inadvertently increase vulnerability or lead to additional negative outcomes. Risk results from dynamic interactions of climate-related hazards with the exposure and vulnerability of the affected human or ecological system to the hazards.

Locally led adaptation[lxxvi]

Locally led adaptation is an approach to climate change adaptation that centres on empowering and giving decision-making authority to the impacted communities and stakeholders. It recognises that those who are directly affected by climate change are best positioned to identify and implement solutions that work for their specific context. This approach aims to make adaptation efforts more effective, equitable and sustainable by ensuring that local knowledge, priorities and capacities drive the adaptation process. Save the Children is one of 120 stakeholders that have endorsed the principles for locally led adaptation, and the organisation is part of a global movement on locally led adaptation.

The eight principles for locally led adaptation are:

- Devolved decision-making: empowering local institutions and communities with direct access to finance and decision-making authority over adaptation actions.
- Addressing structural inequalities: ensuring that adaptation actions integrate considerations of gender, age, disability and ethnicity to address root causes of vulnerability.
- Providing patient and predictable funding: offering long-term, predictable funding with simpler access to support the development of local governance and capacities.
- Investing in local capabilities: strengthening the abilities of local institutions to manage adaptation initiatives over the long term.

- Building a robust understanding of climate risk and uncertainty: combining local, traditional, Indigenous, generational, and scientific knowledge to inform adaptation decisions.
- Flexible programming and learning: enabling adaptive management through robust monitoring and learning systems, and flexible finance and programming.
- Ensuring transparency and accountability: making the processes of financing, designing, and delivering programmes transparent and accountable to local stakeholders.
- Collaborative action and investment: promoting collaboration across sectors and initiatives to enhance efficiencies, avoid duplication and share good practice.

Loss and damage

Loss and damage in the context of climate change encapsulates the severe and irreversible impacts that cannot be mitigated or adapted to, disproportionately affecting vulnerable populations, especially children. It recognises that despite efforts to combat climate change, some negative outcomes – such as destruction of homes, loss of livelihoods, and psychological trauma – are inevitable due to existing greenhouse gases in the atmosphere. This concept is particularly relevant for children, as it highlights an intergenerational injustice: the youngest, least responsible for the climate crisis, are inheriting its direst consequences, underscoring the urgent need for this to be addressed as a central element of climate action.

Multidimensional poverty and deprivation

This concept extends the traditional focus on poverty from income-based assessments to a broader range of factors that affect an individual's or a community's quality of life. It acknowledges that poverty is not solely about the lack of financial resources but includes deprivations in various dimensions such as health, education, living standards, and access to basic services. This approach recognises that these dimensions are interlinked and that deprivations in one area can exacerbate hardships in others. Multidimensional poverty measurement typically involves an index that captures the range and depth of simultaneous deprivations experienced by people, providing a more comprehensive understanding of their living conditions and wellbeing. This analysis relies on the Global Gridded Relative Deprivation Index (GRDI), which rates multidimensional deprivation and poverty through a combination of factors including the ratio of children to working-age population, infant mortality rates, human development levels, and the contrast between rural and urban populations.

Regenerative food systems

Regenerative food systems are agricultural and food production practices designed to restore and enhance the health of ecosystems, improve biodiversity, and increase resilience to climate change. These systems prioritise soil health, water management, and the integration of crops and livestock to create a balanced, sustainable cycle that benefits both the environment and local communities. By focusing on practices such as conservation agriculture, water-use efficiency, reduced chemical inputs, food safety and renewable energy, regenerative food systems aim to sequester carbon, improve nutrient cycling, and support the long-term capacity of food systems to deliver healthy diets.

Unprecedented lifetime exposure to climate extremes

Unprecedented lifetime exposure to climate extremes is defined as an exposure you would only have a 1 in 10 000 chance of experiencing during your lifetime in a world without human-induced climate change. Using climate and impact models, lifetime exposure to climate extremes can be calculated for children for different future warming scenarios as well as a hypothetical world without climate change.

Urban slum

UN-HABITAT defines a slum household as a group of individuals living under the same roof in an urban area, who lack one or more of the following:

1. Durable housing of a permanent nature that protects against extreme climate conditions.
2. Sufficient living space, which means not more than three people sharing the same room.
3. Easy access to safe water in sufficient amounts at an affordable price.

4. Access to adequate sanitation in the form of a private or public toilet shared by a reasonable number of people.
5. Security of tenure that prevents forced evictions.

Vulnerability

Based on the IPCC definition, vulnerability is defined as the 'propensity or predisposition to be adversely affected'. It 'encompasses a variety of concepts and elements, including sensitivity or susceptibility to harm and lack of capacity to cope and adapt' to adverse conditions, such as extreme weather events or long-term climate shifts. This adaptation includes the need to anticipate, prepare for, respond to, and recover from the impacts of climate-related events. Factors influencing vulnerability include economic wealth, technology, education, information, skills, infrastructure, access to resources, and management capabilities. High vulnerability is characterised by a greater propensity for damage and a slower or more difficult recovery process following environmental disturbances or changes.



Photo: Shona Hamilton/Save the Children

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