



**END CHILD
POVERTY**
GLOBAL COALITION



**A DISPROPORTIONATE BURDEN:
CHILDREN IN POVERTY BEARING THE BRUNT
OF THE CLIMATE CRISIS**

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1. INTRODUCTION

The climate crisis is not a distant risk.

The climate crisis is already threatening children's rights and their well-being here and now. Almost every child in the world is exposed to major climate and environmental hazards,¹ and 4 out of 5 children face at least one extreme climate event per year.² Also, children born today face much higher climate risks than those from previous generations, as the increasing concentration of greenhouse gases in the atmosphere lead to more frequent and intense extreme weather events.³

Climate change is also a social justice issue.

⁴ Children in low- and middle-income countries often bear the brunt of worsening climate change and its impacts, despite contributing least to it. Countries home to half of the population living in extreme poverty contribute only 3 per cent of global emissions.⁵ Yet new analysis conducted for this report shows that children living in the poorest regions within low- and middle-income countries are particularly affected by extreme weather events.

These climate risks threaten the global goal of ending extreme child poverty.

⁶ They push people further into poverty or prevent others from escaping it, undermining current efforts to alleviate poverty.⁷ Child poverty is multidimensional, manifesting itself in various ways, such as poor nutrition, lack of health services, or deprivation in quality education. The negative effects of climate change on those dimensions, as well as on the limited capability to maintain livelihoods or participate in society, are widely recognised. According to estimates from the Intergovernmental Panel on Climate Change (IPCC), children will be among the most affected by global warming due to multiple factors including food insecurity, loss of household loss of incomes and livelihoods, adverse health impacts and population displacement.⁸

Child poverty is both a driver of vulnerability as well as the result of overall climate risk.

Figure 1 illustrates the interconnectedness between child poverty and child vulnerability and exposure to climate risks.

1 UNICEF (2021a).

2 Save the Children (2022).

3 Ibid.

4 Ibid.

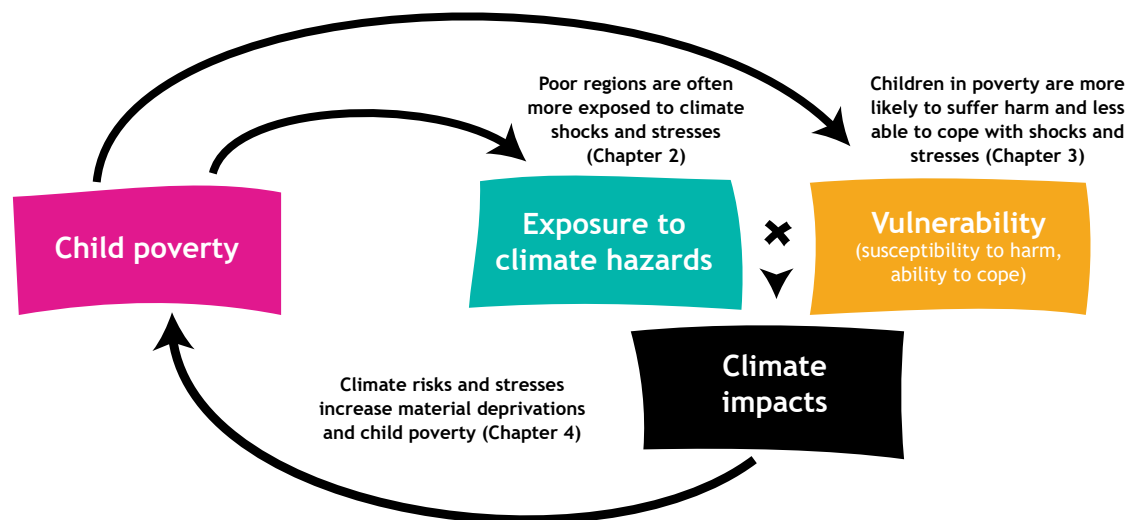
5 Gerszon Mahler et al. (2023).

6 As per the SDGs, countries must eradicate extreme poverty for all people - including children - by 2030 as internationally defined (PPP \$1.90) and reduce at least by half the proportion of children living in poverty in all its dimensions according to national definitions.

7 Diwakar et al. (2019); Hallegatte, Fay, and Barbier (2018).

8 IPCC (2022).

Figure 1: Child poverty is both a driver of vulnerability as well as the result of overall climate risk



This report presents findings from analysis combining for the first-time detailed child poverty data from household surveys with information on climate risks for 83 low- and middle-income countries.

First, the analysis illustrates the disproportionately larger risks of extreme weather events for children living in poor subnational regions, with **3 out of 10 children living in provinces with above-average child poverty and exposure to extreme climate events**. Furthermore, children living in poverty are often more likely to suffer harm, as they may live in lower-quality housing, may already experience food insecurity or health issues, and have inadequate access to information. Children in poverty and their families also often face monetary poverty, more vulnerable livelihoods, limited access to social protection, or dependency on lower-quality public services, reducing their capacity to respond to negative effects or to

adapt to a changing climate and therefore increasing their vulnerability.

Second, **extreme weather events, slow onset impacts, and other climate-related shocks can exacerbate poverty**. Such climate shocks or stresses can directly impact child poverty, for instance through physical damage to homes which results in lack of shelter, or the destruction of household livelihoods.⁹ But climate change can also have indirect impacts on households and children, for instance through damage to public services or key infrastructure, and disruptions to power or water supplies - all of which significantly impact children's access to care.¹⁰ Climate-affected households are forced at times to reduce spending on education, healthcare and food, which affects nutrition and longer-term development outcomes, or families may take their children out of school to support domestic work or paid labour.¹¹ Those decisions often have long-lasting

9 Diwakar et al. (2019).

10 Ibid.

11 Ibid.

effects, leading to reduced incomes as children become adults, perpetuating the intergenerational persistence of poverty.

Moreover, **weather-related events, exacerbated by climate change, have already driven millions of children from their homes:** new analysis by UNICEF and the Internal Displacement Monitoring Centre suggest that 43.1 million children were internally displaced as a consequence of climate hazards, mostly due to storms and floods.¹² Climate change will likely lead to further displacements in the coming decades, leaving many children at risk of human trafficking, early marriage and exploitation, as migrant children are often at higher risk of being deprived of essential services and protection.¹³

New evidence from this analysis highlights the potential role of extreme climate events in preventing children from escaping poverty. Focusing on floods in Nigeria, Uganda and Malawi, our analysis found that children living inside a 5km buffer zone of flooded areas were on average 48 per cent more likely to experience poverty compared to children living outside of this buffer zone, even after we adjust for other possible determinants of child poverty.

Luckily, we know what is needed to end child poverty - and how to do so sustainably.¹⁴ While contexts may vary significantly, a **core policy agenda** to address the key issues involves the following: 1) Making child poverty reduction a national priority; 2) Expanding child-sensitive social protection; 3) Improving

access to and prioritising funding of quality public services; and 4) Promoting a decent work and inclusive growth agenda.¹⁵ By enacting these interventions, governments can not only reduce child poverty but also protect the environment and actively promote a transformation towards a green economy.¹⁶

Policy responses will be crucial to address the increased risk posed by the climate crisis, as illustrated in Chapter 5. But as situations vary according to various factors, policy responses need to be adapted to risks and local circumstances. Child-focused, resilient, and quality data systems will be essential to identify a path forward. But crucially, those decisions should follow children's experiences and demands, by listening to children who have been powerfully raising their voices for climate justice, and by considering the specific needs that children face depending on their gender, disability, or ethnicity.

This is not the first analysis which explores the link between poverty and climate risks, and it won't be the last either exploring this important link. There is a wealth of information and studies for individual countries, and some limited research globally focused on monetary poverty. However, **this is the first time that the link between climate risks and multidimensional child poverty across low- and middle-income countries has been analysed.** This evidence provides policy makers on all levels with a better understanding of the impacts of climate risks on child poverty, and how to design a policy agenda that responds to the different pathways.

12 UNICEF (2023).

13 Office of the Special Representative of the Secretary-General on Violence Against Children (2022).

14 Global Coalition to End Child Poverty (2022).

15 Ibid.

16 For example, schools and health clinics etc can be run with renewable energy. Also, jobs for parents and caregivers could be geared towards recycling activities or production of goods and services with zero carbon footprint (which would require many additional jobs from research and development (R&D) to retrofitting/installing new production plants).

2. EXPOSURE TO HAZARDS: CHILDREN IN POVERTY AT THE FOREFRONT OF THE CLIMATE CRISIS

Chapter summary

- Almost every child globally is affected by extreme climate and environmental hazard, shocks and stresses.
 - Our new analysis shows that children living in poverty are disproportionately exposed to extreme climate events, with 3 out of 10 children living in provinces with above-average rates of child poverty and exposure to extreme climate events.
 - However, the link between the subnational level of child poverty and exposure to climate risks is complex: while in some world regions poorer provinces are more exposed to some climate risks, for other risks or world regions we find the opposite relationship or no link at all.
 - These findings reiterate the importance of national and local analyses of the correlation between child poverty and exposure to climate hazards, shocks and stresses.
-

2.1 Almost every child is affected by extreme climate events and environmental hazards

Understanding where and how children are exposed to climate hazards and shocks is a crucial first step towards identifying the vulnerabilities and impacts of the climate crisis on children living in poverty. For instance, utilizing high-resolution geographical data, UNICEF's Children Climate Risk Index (CCRI) finds that every child on earth (>99 %) is exposed to at least one major climate and environmental hazard, shock or stress, and 80 million children are exposed to at least six overlapping hazards.¹⁷

The climate hazards, shocks and stresses children are facing today are much higher than those for previous generations. According

to modelling conducted by an international team of climate researchers at Vrije Universiteit Brussel, Belgium, for Save the Children, a child 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 a person born in 1960.¹⁸

The modelling analysis presented in this report is based on global climate models which can estimate the annual exposure to six extreme climate events (see Box 1). The data shows that 4 out of 5 children face at least one extreme climate event per year (but potentially multiple events), such as wildfires, heatwaves, crop failures, droughts, floods,

17 The CCRI provides a comprehensive view of children's exposure and vulnerability to the impacts of climate change. It ranks countries based on children's exposure to climate and environmental shocks, such as cyclones and heatwaves, as well as their vulnerability to those shocks, based on their access to essential services. For more, please see UNICEF (2021a).

18 Save the Children (2022).

or cyclones.¹⁹ While the data does not allow analysis of the severity of any event - an important limitation it shares with many other risk assessments such as the CCRI - it provides a powerful basis for the further analysis of the link between climate exposure and child poverty.

BOX 1: How this report measures climate hazard and exposure

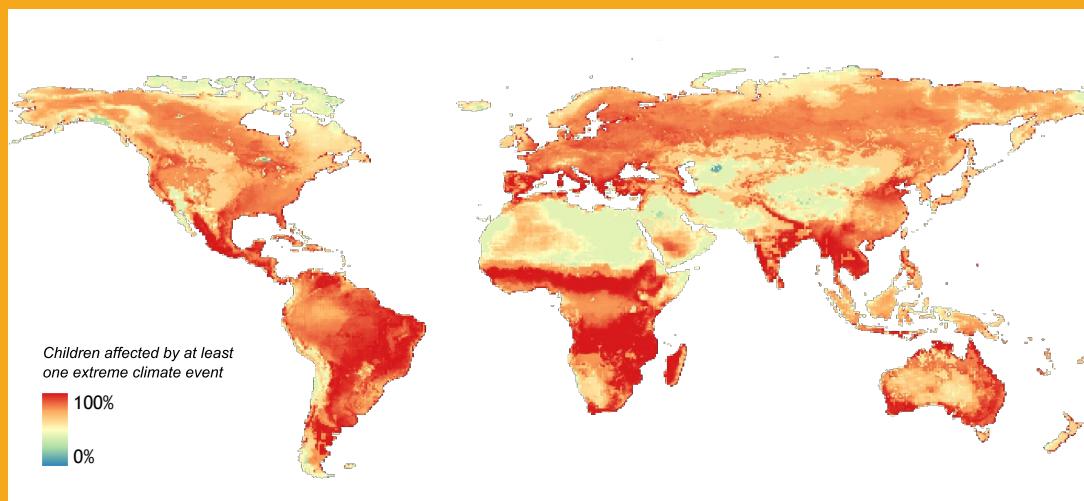
There are many indicators across a range of different environmental risks which can be used to measure climate hazard and exposure, each with their own advantages and disadvantages. This report mostly relies on modelling previously conducted by the BCLIMATE group at the Vrije Universiteit Brussel for Save the Children, which used the largest multi-model climate impact projections database available to date as part of the Inter Sectoral Impact Model Intercomparison Project phase 2b (ISIMIP2b) to estimate the risk of different extreme weather events across the globe. For each grid (using a 0.5 x 0.5-degree resolution, which represents ca. 50x50km on the equator), the BCLIMATE group analysed whether, across different models, extreme climate events were expected to occur (wildfires, crop failures, droughts, river floods, heatwaves, and tropical cyclones). The data represents the risk of experiencing extreme climate events in 2020 (combining 20 years of projections before and after this year to derive a more robust estimate). The model has been used in previous reports by Save the Children²⁰ and the estimates were published in the academic journal *Science* in 2021²¹.

19 Ibid.

20 Save the Children (2021); (2022)

21 Thiery et al. (2021).

Figure 2: 8 out of 10 children experience at least one extreme climate risk per year



2.2 Children in poor provinces face higher risks

Children in low- and middle-income countries often bear the brunt of worsening climate change and its impacts, despite contributing least to it.²² However, a more granular understanding of the link between exposure to climate shocks and stresses, and poverty, is often lacking. What has not been made clear in previous analyses is whether children in poor provinces are more exposed to extreme climate events than those in better-off parts of a country (the term ‘province’ is used here as a synonym for subnational regions, which - dependent on the country - can be states, regions, departments, etc.).

Our novel data analysis for this report tries to address exactly this question, combining data on exposure to extreme climate events with estimates of multidimensional child poverty across 1,083 subnational regions for 83 countries (see Box 2 on our measurement of child poverty). Figure 4 illustrates this relationship: each circle is one subnational region (with larger circles representing regions with a larger child population), representing the level of poverty (measured by the percentage of children who are severely deprived in at least one dimension) and the average climate risks (measured by the proportion of children affected by at least one extreme climate event per year).

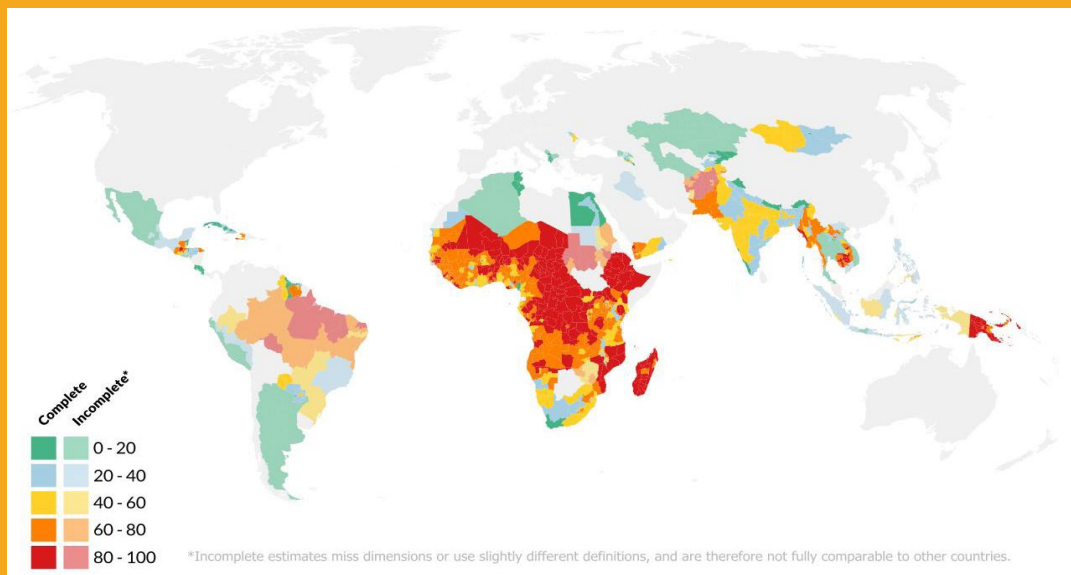
²² UNICEF (2021a); Save the Children (2021).

BOX 2: How this report measures child poverty

The use of different dimensions, indicators and thresholds for measuring child poverty results in estimates that are not comparable. Throughout this report, a new internationally comparable measure of multidimensional child poverty developed by UNICEF has been utilized, capturing children’s material deprivations in child rights.²³ This measure allows the estimation of the same dimensions - education, health, nutrition, housing, water, and sanitation - across all countries. A child is considered multidimensionally poor if she/he is severely deprived in at least one of these dimensions. Our sample includes data from 88 countries from 2011 or later, representing 77% of all children living in low- and middle-income countries. Across this sample, half of all children are deprived in at least one dimension and are therefore considered poor.

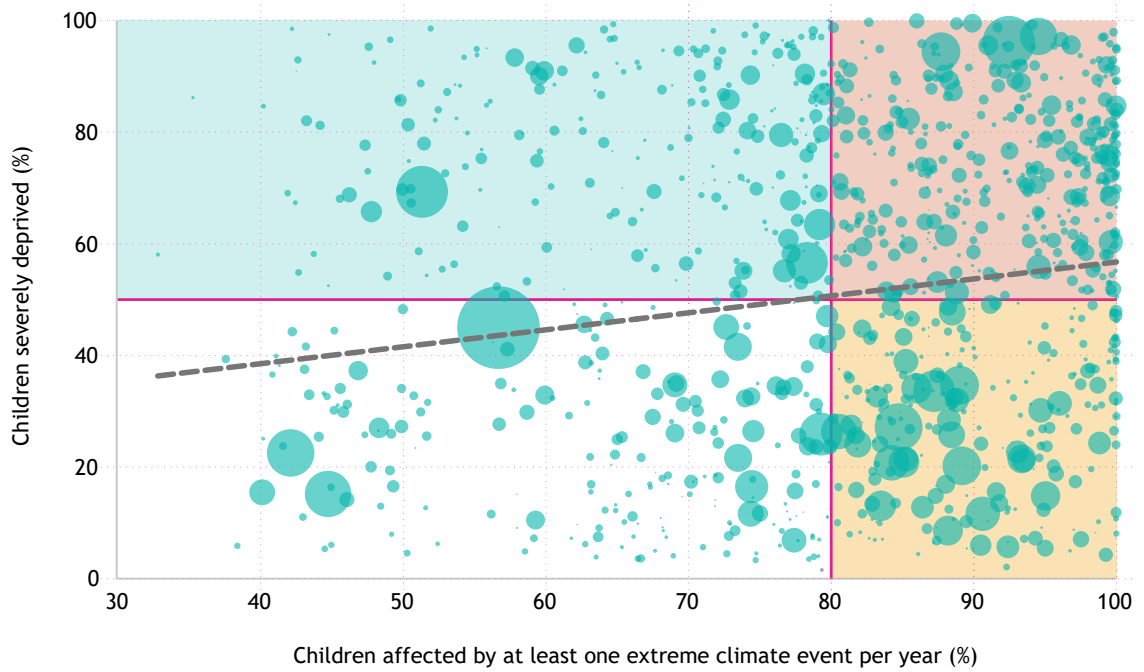
The data comes from household surveys such as the Multiple Indicator Cluster Survey (MICS) and the Demographic and Health Survey (DHS), which provide high-quality and comparable data across most low- and middle-income countries. Those surveys are representative on a national level as well as usually one administrative level down, such as state or province level. Some of those surveys (mostly DHS at the moment) also share more detailed information on the location of each household, allowing for more granular analyses.

Figure 3: Child poverty across subnational regions (severely deprived in at least one dimension) is particularly prevalent in Sub-Saharan Africa



23 UNICEF Data (2021).

Figure 4: 3 out of 10 children live in provinces with above-average child poverty and exposure to extreme climate events (red area)



Pink lines show the approximate average for child poverty and exposure to extreme climate events. Each circle represents one subnational region (larger circles representing regions with a larger child population). Data for child poverty from UNICEF/Save the Children based on DHS and MICS household surveys for 2011 and later. Data on risks of extreme weather events based on Thiery et al. (2021) and Save the Children (2022).



Children living in poverty are disproportionately exposed to extreme climate events: our analysis found that more than 6 out of 10 children who are multidimensionally poor live in provinces with above-average climate exposure (in regions where more than 80 per cent of children are affected by extreme climate events). The analysis also revealed that, on average, poorer provinces are more exposed to extreme climate events. On a global scale, this relationship (represented by the grey dashed line) is statistically relatively weak: there are a lot of less-poor provinces which face very high climate exposure (yellow area), and equally some of the poorest provinces face fewer climate events than others (green area). However, a stronger statistical relationship is shown when controlling for country-specific circumstances, which suggests that, on average, more climate-exposed provinces are also poorer, although this relationship varies from context to context.²⁴

Overall, circa 3 out of 10 children live in regions which are at very high exposure to extreme climate events and are very poor (red area). These are the children most at risk: they are already deprived of basic needs, and will continuously face climate shocks and stresses, undermining policies and programmes aimed at addressing these deprivations. Those children live predominantly in Africa (both West and Central Africa as well as Eastern and Southern Africa), highlighting the particular burden these regions face, both in terms of child poverty as well as in exposure to the climate crisis. Box 3 showcases the personal views of some children on how climate change impacts their lives.

24 The general relationship between multidimensional poor subnational regions and the exposure to extreme climate events remains when we use alternative measures of child poverty (considering a threshold of two severe deprivations, moderate definitions of deprivations, average number of deprivations in each province), although they are no longer statistically significant when controlling for country-specific effects.

BOX 3: Children's voices from affected areas

Changing weather patterns are affecting children in Africa in many ways. Below, young people explain the impacts of climate change on their lives in their own words:

Mary, a 13-year-old girl from Ethiopia, says: “The weather is changing a lot. Sometimes it rains too much and sometimes there is drought. We don’t have enough food or water. Sometimes we get sick from the dirty water or the heat. I want to go to school but sometimes I have to help my family with farming or fetching water.”²⁵

James, a 10-year-old boy from Kenya, says: “I love tea. It is our main crop and our main source of income. But climate change is making it harder to grow tea. The rainfall is not regular anymore. Sometimes there is too much rain and sometimes there is none. The tea leaves are not as good as before. I worry about the future of my family and my community.”²⁶

Fatima, a 12-year-old girl from Mali, says: “Climate change is making our land dry and barren. We used to have green fields and trees, but now everything is brown and dusty. We have to walk longer distances to find water and pasture for our animals. Sometimes we have to move to other places to survive. I miss my friends and my school.”²⁷

Shashitu, a 15-year-old girl from Ethiopia, says: “My body weight has greatly declined due to lack of sufficient food [after last year’s drought]. We used to go to school without eating anything. We could not follow lessons properly due to hunger, and this contributed to the drop-out of my sister and myself.”²⁸

Previous research by Young Lives in Ethiopia, India, Peru and Vietnam found that children living in the very poorest households are at least three times more likely to have experienced an extreme weather event than those living in the least poor households.²⁹ Likewise, earlier analysis found that poorer households (measured by asset wealth) are more exposed to higher temperatures in hot countries and lower temperatures in colder countries, as well as more exposed to floods - however, these analyses lack a particular focus on children in those contexts.³⁰ In

any case, the relationship between poverty and exposure to climate shocks is not straightforward, with causality running in both directions: poorer communities have no other choice but to live in riskier locations where land is more affordable and available; living in riskier areas means they are then affected more once a disaster strikes; and lack of access to affordable credit (and safety nets) can leave those living in the poorest households least able to compensate for income losses when climate shocks occur, further reinforcing poverty.³¹

25 United Nations Climate Change (2020).

26 National Geographic Kids (no date).

27 BBC News (2019).

28 Chuta (2014).

29 Porter and Ford (2022).

30 Hallegatte, Fay and Barbier (2018), p. 223; Dung (2013).

31 Hallegatte, Fay and Barbier (2018), p. 223; Winsemius et al. (2018), p. 330.

The relationship between poverty and climate risk has mostly only been studied through case-studies focusing on a few countries.³² The analysis presented in this report adds to a small number of studies which try to derive some more representative insights across many countries, while still considering within-country variation and inequality.

2.3 Unpacking the relationship between different climate hazards and regional child poverty

Analysing climate shocks and stresses as an aggregate hides important differences and nuances. Those nuances matter, as different pathways might call for very different policy responses. The extreme climate event data used in this analysis cover six individual risks: floods, droughts, cyclones, heatwaves, crop failures, and wildfires. While these risks cover many of the most severe and immediate climate shocks on children, other risks - especially so-called slow-onset events which materialise over a long period of time - also deserve increased attention.³³ For instance, changes in temperature, rainfall patterns and humidity can influence the exposure to vector-borne diseases such as malaria and dengue, with lethal effects on children.³⁴

Figure 5 below illustrates again the link between child poverty and exposure to extreme climate events on a subnational level (comparable to Figure 4), presenting data for each climate event separately. Different colours identify different world regions, highlighting only regions where a statistically significant relationship between the exposure

to a particularly extreme climate events and the level of child poverty was found.

What emerges is a far more complicated picture than the one presented earlier. The analysis at subnational level shows that, sometimes, poor provinces are more likely to experience extreme climate events, while sometimes they are less likely to be affected. This relationship also varies significantly between different world regions. And in many cases, no significant relationship is found at all. For instance, in Eastern and South Africa the analysis did not find any significant relationship between subnational level of poverty and climate exposure.

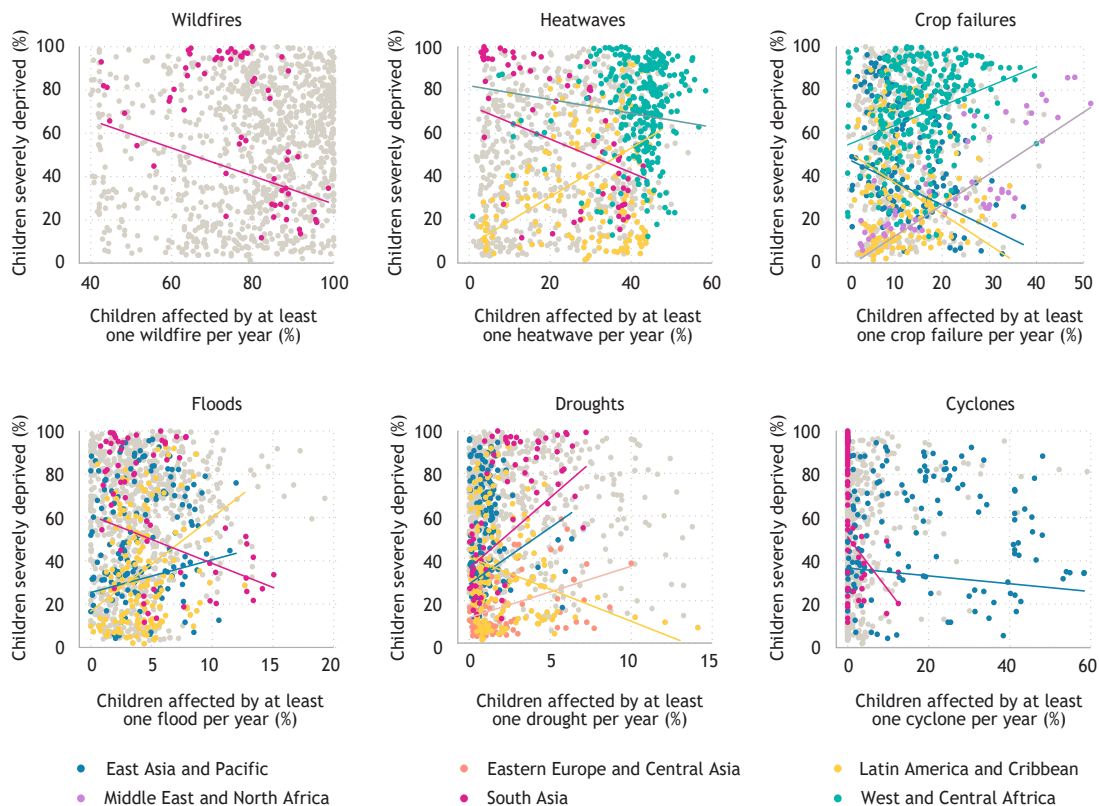
Caution should be applied when interpreting these findings, remembering that this analysis purely focuses on subnational levels of child poverty and exposure of extreme weather events. A negative relationship between the provincial level of child poverty and climate exposure does not necessarily mean that children living in poverty are less likely to be affected than their better-off peers (and the lack of any relationship doesn't imply no difference between both groups) - a vast literature shows unquestionably that children experiencing poverty are far more vulnerable and susceptible to extreme weather events (as discussed in the following chapter). Rather, this analysis highlights whether poor provinces are less or more likely to be affected by a particular extreme climate event, providing us with valuable insights on the links between places which need to sit at the forefront of poverty reduction and those where climate preparedness and disaster risk reduction is crucially needed.

32 Winsemius et al. (2018).

33 Diwakar et al. (2019), p. 15.

34 UNICEF (2021a).

Figure 5: The link between climate exposure and poverty differs across contexts and climate risks



Source: Data for child poverty from UNICEF/Save the Children based on DHS and MICS household surveys for 2011 and later. Data on risks of extreme weather events based on Thiery et al. (2021) and Save the Children (2022).

Out of the six climate risks presented in Figure 5, **wildfires** are by far the most common risk: **almost 80 per cent of children** in the 83 countries included in our analysis are affected by this particular risk, creating physical harm for children and their families, endangering children’s health - especially for children with existing respiratory illnesses - and threatening local livelihoods.³⁵ However, the analysis does not find that wildfires are

particularly threatening to poorer (or richer) provinces in most of the world, with the exception of South Asia, where wildfires were found to be more prevalent in less-poor provinces.

The second most common risk are **heatwaves**, which affect **on average 35 per cent of children** every year. Children are particularly vulnerable to heatwaves, due to their

35 Holm, Miller, and Balmes (2021).

ongoing physical development and lower capacity for body temperature regulation.³⁶ During heatwaves, children are at high risk of electrolyte imbalance, fever, respiratory disease, and kidney disease.³⁷ The analysis shows again that those risks affect children differently in different contexts: while poorer provinces are more at risk of heatwaves in Latin America and the Caribbean, the opposite was found to be true in South Asia as well as West and Central Africa. In most other world regions, the analysis does not show a strong link between the subnational level of multidimensional child poverty and heatwaves. This is contrary to previous research using household assets as measure for wealth, which found poor households to be more exposed to high temperatures in the majority of countries studied, especially in hotter regions where higher temperatures are undesirable.³⁸ In addition, that study found poorer families more engaged in outdoor work such as agriculture or unskilled manual labour, and hence more exposed to high temperatures.³⁹ A recent study exploiting machine learning data on wealth across low- and middle-income countries similarly finds higher temperature variability to be associated with lower levels of wealth.⁴⁰ It should be noted that different definitions of poverty may yield different results; studies exploring the linkage between climate risks and poverty commonly rely so far almost

exclusively on monetary metrics rather than multidimensional measures.

Crop failures affect circa 20 per cent of children every year. Disruptions to global and local food systems can have devastating effects on child nutrition, especially during the most critical phases of their physical and mental development.⁴¹ In the Middle East and North Africa as well as in West and Central Africa regions, we find that multidimensionally poor provinces are at significantly higher risks of such crop failures than better-off areas, potentially increasing existing inequalities in malnutrition and broader child development. In contrast, in Latin America and the Caribbean as well as East Asia and the Pacific, less-poor areas were more at the forefront of crop failures than poorer provinces - this could be for instance due to geographical factors in those countries which make traditionally more fertile areas more exposed to increased global temperatures.

Floods affect around 5 per cent of children per year. This may at first seem like a small risk in comparison to those above. However, in the climate model used for this analysis, an extreme flood event refers to a river flood which would have happened in preindustrial times once in 100 years. Therefore, every year, 5 per cent of children experience a 1-in-100 years event, with floods causing

36 Save the Children (2021).

37 Watts et al. (2019).

38 Park et al. (2018) which will worsen with climate change. In this paper, we assess the current distribution of heat exposure within countries, to explore possible distributional consequences of climate change through temperature. Combining survey data from 690,745 households across 52 countries with spatial data on climate, this paper suggests that the welfare impacts of added heat stress may be regressive within countries. We find: (1.

39 Ibid. which will worsen with climate change. In this paper, we assess the current distribution of heat exposure within countries, to explore possible distributional consequences of climate change through temperature. Combining survey data from 690,745 households across 52 countries with spatial data on climate, this paper suggests that the welfare impacts of added heat stress may be regressive within countries. We find: (1

40 Jasper and Brezinska (2023).

41 Watts et al. (2019).

destruction of homes and services, spreading waterborne diseases, damaging agriculture and livelihoods, and potentially leading to displacement and death.⁴² In both East Asia and the Pacific, as well as Latin America and the Caribbean, our analysis revealed a significantly positive relationship between flood risks and child poverty, showing that provinces with higher rates of children living in multidimensional poverty are, on average, more likely to be affected by floods. The opposite is true in South Asia, where better-off provinces were found to be at higher risk of floods. In a similar analysis comparing subnational levels of monetary poverty and flood risk, the World Bank found that approximately 1.47 billion people are exposed to moderate to very high risk of floods, 588 million of whom live on less than PPPUS\$5.50 per day.⁴³ However, as floods are often a very local phenomena - with some areas at risk of flooding potentially located very close to an area not at risk at all - this type of subnational analysis cannot fully explain this intricate relationship. Previous research using more geographically detailed data for more than 50 countries indeed confirmed that poor households are more exposed to floods than wealthier households in most countries, particularly in urban areas.⁴⁴ New research using high-resolution data shows that, since 1985, human settlements around the world have expanded continuously and rapidly into present-day flood zones.⁴⁵

Droughts affect around 2 per cent of children in our sample. Prolonged droughts can increase food insecurity and child malnutrition, leading to reduced school enrolment, and price increases which can

further raise financial stress and poverty amongst households.⁴⁶ Our analysis found a significant link between drought risk and poor provinces in South Asia, East Asia and Pacific, as well as in Eastern Europe and Central Asia, while better-off regions were more affected by drought in Latin America and the Caribbean. The analysis found no significant relationship across the African continent between drought risk and poor provinces. This may be partly due to subnational aggregates, as a positive link between both variables was found on a small geographic level (see Box 4). Similarly, previous research on the link between droughts and household wealth across 30 countries found a disproportionately high exposure of poorer households to droughts in 24 countries, both in Asia as well as in many countries in Southern and Western Africa.⁴⁷

Cyclones are much more geographically focused on certain regions in the world, most notably East Asia and Pacific, South Asia and South-East Africa, affecting around **2 per cent of children** every year. The analysis found that poorer provinces in both South Asia as well as East Asia and the Pacific are less exposed to higher risk of cyclones.

So far, our analysis has only focused on exposure to extreme weather events. But as mentioned earlier, this is only the first piece of a broader puzzle: the ultimate impact of climate shocks and stresses on children is not solely determined by the exposure to those events, but also by children's vulnerability (which is influenced by the coping strategies and adaptive capacities families can employ when facing such a disaster). This is

42 Save the Children (2021).

43 Rentschler, Salhab, and Jafino (2022).

44 Winsemius et al. (2018).

45 Rentschler et al. (2023).

46 Save the Children (2021); UNICEF (2021a); Cooper et al. (2019); Hallegatte et al. (2017).

47 Winsemius et al. (2018).

particularly true for regions facing recurrent disasters, where households may generally be quite resilient towards the initial impact, even amongst poorer communities. Chapter 3 will look at these individual drivers much more in detail.

However, the findings above highlight an important lesson: different risks affect world regions and countries very differently. This aligns with previous findings on monetary poverty and climate change, which identified different climate impacts on poverty in different world regions. For example, while health impacts - increased prevalence of stunting, malaria, and diarrhoea - are the main climate-induced drivers of poverty in East Asia and the Pacific, as well as in Latin America and the Caribbean, increased food prices as the consequence of climate change are the main drivers in South Asia and Sub-Saharan Africa.⁴⁸

Extreme weather events and other climate risks not only differ between world regions and countries but can also affect poor

provinces differently depending on the specific context. The analysis in this chapter showed that multidimensionally poor provinces are disproportionately affected by extreme climate events, although this varies significantly according to type of hazard and world region. Therefore, it is crucial to understand levels of exposure and the interplay with overall levels of child poverty at a national and local level.

These findings hold potentially crucial implications for broader poverty eradication and climate policy, as discussed in more detail in Chapter 5. Investments in children - either directly through social protection or indirectly through critical child services - not only make economic sense, but they are also fundamental to deliver child rights everywhere. But in areas where climate exposure and child poverty overlap, the returns on such investments are even larger, as they simultaneously reduce child poverty while also lowering children's vulnerability and increasing their resilience.

48 Jafino et al. (2020).

BOX 4: The link between climate and poverty on a microlevel: an example from Sub-Saharan Africa

Although both climate risks and poverty profiles vary significantly within subnational regions,

the analysis conducted for this report has primarily had to focus on subnational regions, as poverty estimates from household surveys are often only representative at the national level or first administrative level (e.g. province), and do not allow for child- or community-specific estimates.

However, a new project by Save the Children and UNICEF, together with fellows from the University of Warwick's Data Science for Social Good initiative, has produced micro estimates of multidimensional child poverty across all of Sub-Saharan Africa for each 5km², combining georeferenced household survey and a machine-learning model including nightlight data from satellite, road density, commuting patterns etc. While such estimates can never fully capture the truth on the ground and come with a large degree of uncertainty, they allow linkages between child poverty and exposure to climate risks on a much more granular level.

Using this data, our analysis found a significant and strong link between the local levels of exposure to climate risks and multidimensional child poverty across all countries in Sub-Saharan Africa, with children living in poorer areas more exposed to extreme climate risks than children in less poor areas. This is particularly true when controlling for country-specific factors, in which case an increase of the proportion of children affected by at least one extreme climate event by 1% led to an increase in child poverty by 0.5%. This was particularly true for crop failures and droughts.

3. FACING VULNERABILITY: CHILDREN IN POVERTY ARE MORE VULNERABLE TO CLIMATE HAZARDS

Chapter summary

- Lower-quality housing, existing food insecurity or other health issues, and inadequate access to information all mean that children in poverty are more likely to suffer harm from climate shocks, stresses and hazards.
 - Monetary poverty, vulnerable livelihoods, limited access to social protection, and dependency on lower-quality public services all contribute to families having fewer capacities to cope with and adapt to the effects of climate change.
 - Our analysis shows that children's social protection coverage does not change with changing risks of extreme climate events, i.e., children at the forefront of the climate breakdown do not receive higher social protection coverage, on average, than children less likely to face extreme climate events.
-

Chapter 2 showed that poorer provinces are disproportionately exposed to extreme climate events, although the level of exposure varies significantly between different types of risks and regions of the world. Understanding exposure to climate shocks, stresses and hazards is one essential part to understand the overall risk children are facing. But to fully comprehend the impact of the climate crisis on children, we also need to take children's vulnerabilities into account.

This chapter explores **two areas of vulnerability**, although many factors causing vulnerability may interact and overlap in some instances.⁴⁹ First, **children in poverty are more likely to suffer harm** once a shock or climate stress occurs, for instance because they live in less stable housing, are already physically weaker due to malnutrition or other health issues or have inadequate access to information. Second, **children in poverty are less able to cope with the consequences**

of the shock - including the capacity to meaningfully adapt in the future - due to financial and structural barriers.

3.1 Children in poverty more likely to suffer harm from climate shocks

Children are generally more likely to suffer harm from climate shocks, stresses or hazards than adults as they are physically less able to withstand and survive extreme weather shocks, and physiologically more susceptible to environmental pollution or diseases exacerbated by global warming.⁵⁰

Children living in poverty are particularly susceptible to harm, as various studies have highlighted in the past. First, they often live in **lower-quality housing**, with floors, walls, and roofs made from natural materials which are more vulnerable to storms, floods and other weather risks. In addition, they often

⁴⁹ The distinction mainly follows the definition in the World Risk Report 2016 (United Nations University - EHS and Bündnis Entwicklung Hilft, 2016), although we combine lack of coping capacities and adaptive capacities in this report.

⁵⁰ UNICEF (2021a).

have inadequate water supply or sanitation services.⁵¹

Second, children who are multidimensionally poor often **experience malnutrition or suffer from other health issues**. This either reduces their ability to protect themselves during a disaster or make them more susceptible to other climate-related diseases such as diarrhoea or malaria.⁵²

Third, they may have **inadequate access to information**, for instance not having a TV, mobile phone or internet access. In low and lower-middle income countries, only 2 per cent of school age children in the poorest 20 per cent of households have access to internet at home.⁵³ This severely limits the likelihood of them receiving disaster warnings and other potentially life-saving information once a climate shock occurs.⁵⁴

Despite the evidence that vulnerability varies significantly between households and families, most existing climate vulnerability indicators are operationalised at the national or regional level, overlooking some of those important micro-level characteristics. A recent study selected relevant indicators measuring climate-related vulnerability and sensitivity and illustrated the importance of individual and household measures of vulnerability for Ghana and South Africa.⁵⁵

Figure 6 shows how those multidimensional vulnerability indicators are distributed among

children in those two countries. More than 80 per cent of children in both countries live in a household with at least one child under 10 years of age, which is considered an indicator of climate vulnerability. In Ghana, unimproved sanitation facilities (affecting 61 per cent of children) and food insecurity (affecting 43 per cent of children) are the second and third most common vulnerability indicators. Both of those indicators are on top of the list in South Africa as well, where 37 per cent of children live in food insecure households and 31 per cent of children live in households which lack improved sanitation facilities. Both of those factors also show significant rural-urban differences, with children in rural areas more likely to live in a household with one of those climate-related vulnerabilities. As Figure 6 shows, unimproved water resources and housing material, malnutrition, vulnerable employment, and many other factors also determine the climate vulnerability of children and their families.

While urban children are generally better off than their rural peers, this is not necessarily true for the 350-500 million children living in informal settlements or slums globally. Inadequate housing and the lack of water or sanitation services - as well as the lack of protective infrastructure - can make children in living in these circumstances particularly vulnerable to the adverse effects of climate change.⁵⁶

51 Zhang et al. (2023); Hallegatte et al. (2016).

52 Ibid.

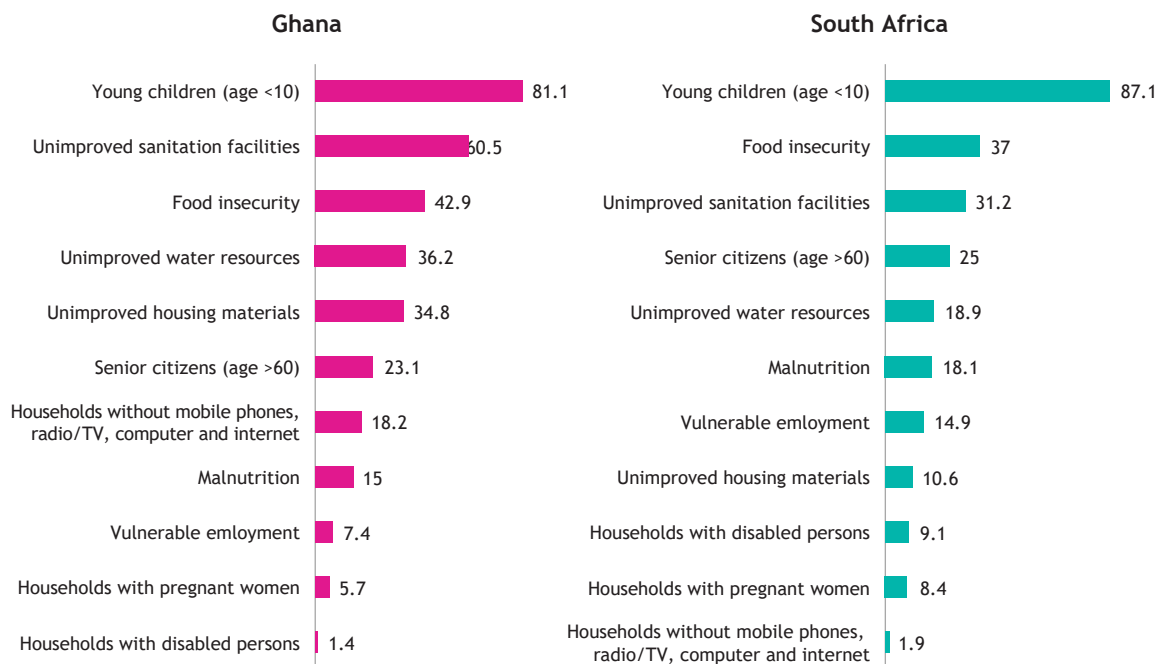
53 UNICEF and International Telecommunication Union (2021).

54 Zhang et al. (2023).

55 Zhang et al. (2023). Note: This study was funded by the UKRI Transforming Social Inequalities through Inclusive Climate Action (TSITICA) project (ES/T015446/1)

56 Bartlett (2008); Bartlett, Satterthwaite, and Sabry (2021); Habitat for Humanity, UN Habitat, and UNICEF (2022).

Figure 6: Household-specific characteristics are essential to understand children’s vulnerability to climate change



Source: based on Zhang et al. (2023)

3.2 Children and families in poverty have less resources to cope with shocks and are less able to adapt to future changes

Financial and structural barriers often mean that children and families in poverty are less able to cope with the negative effects of extreme weather events or other climate stresses. Similar factors also restrict their longer-term capacity to adapt to a changing climate, making them more vulnerable to climate risks in the future.

First, families of children in multidimensional poverty are often also monetarily poor and many of their assets and wealth are vulnerable to damage.⁵⁷ Their parents are often more dependent on income from agriculture or the broader ecosystems, both of which are dependent on factors relating to climate and vulnerable to its impacts.⁵⁸ The lack of savings and access to affordable credit, or disruptions to income, also mean that many of those households are more vulnerable to rising food or other commodity prices in the immediate aftermath of a disaster.⁵⁹

57 Hallegatte et al. (2016).

58 Hallegatte et al. (2016); Zhang et al. (2023).

59 Hallegatte et al. (2016).

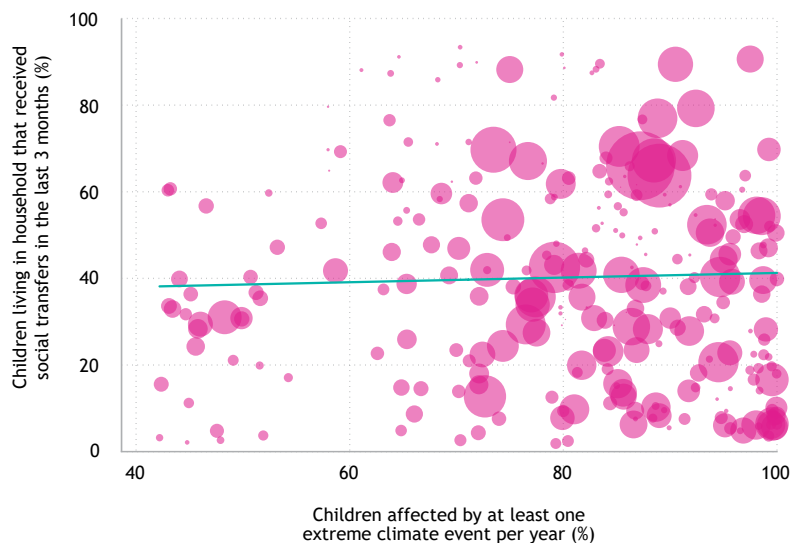


Second, in many countries, poorer families have more **limited access to social protection** compared to better-off households. Looking at the World Bank ASPIRE data shows that social protection and labour programmes consistently benefit richer households more compared to the poorest families.⁶⁰ Even after disasters, ad-hoc emergency schemes may not always reach poor communities.⁶¹

New analysis conducted for this report also shows that social protection systems often do not cover children most at risk of

extreme climate events. Using subnational data from recent MICS surveys across 30 low- and middle-income countries, the analysis found that only 4 out of 10 children in those countries live in a household that received social transfers in the last three months. Even more crucially, this does not change depending on the risk of experiencing an extreme climate event, i.e., children at the forefront of the climate breakdown do not see higher social protection coverage, on average, than children less likely to face extreme climate events (Figure 7).

Figure 7: Children living in high-risk environments are not more covered by social transfers than children less affected by extreme climate events



Each dot is a subnational region, with the size representing the child population.

Source: Estimates based on MICS surveys from 30 low- and middle- income countries (2017-2021).

Data on risks of extreme weather events based on Thiery et al. (2021) and Save the Children (2022).

Thirdly, poorer children are often **dependent on lower-quality public services** (such as schools or health and nutrition services) in the first place. As a consequence, they are less

likely to receive quality care when it's most needed and are more likely to be vulnerable to any disruptions to those services.⁶²

60 Please see the World Bank ASPIRE database - Targeting accuracy - Benefit incidence: <https://www.worldbank.org/en/data/datatopics/aspire/indicator/performance>

61 Hallegatte, Fay, and Barbier (2018) the impacts of climate change on poor people, even if dramatic, will be largely invisible in aggregate economic statistics such as the Gross Domestic Product (GDP).

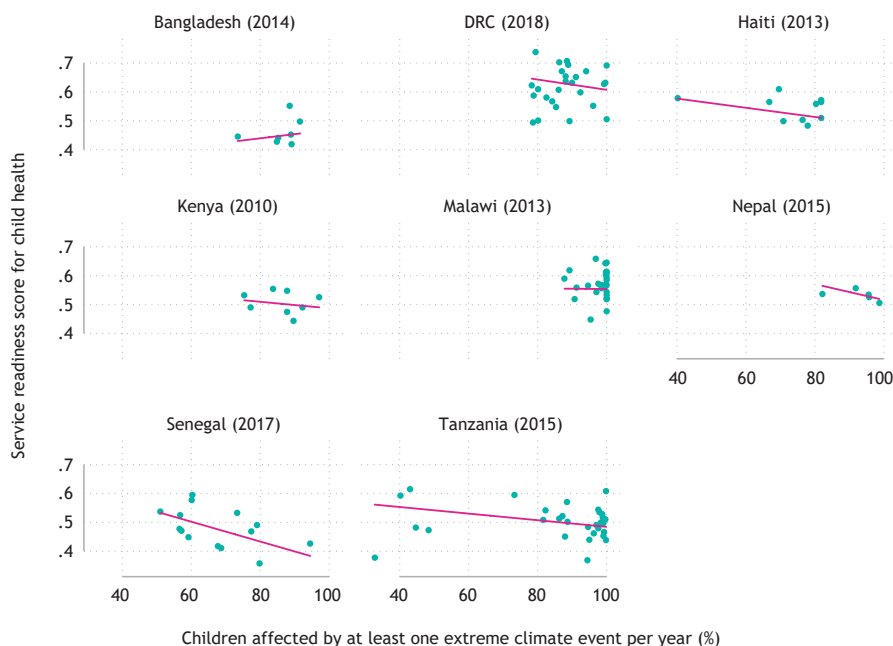
62 Save the Children (2019)

While data on the quality of health services is lacking in many contexts, this analysis utilized data for eight countries with comparable health facility assessments to compare the subnational exposure to extreme weather events with the region’s service readiness (measured by a tracer indicator to check if staff and training, equipment, diagnostics and medicines are available to deliver essential child health services). Our analysis found that in 6 out of the 8 countries, provinces facing higher risks of extreme weather events have

on average lower service readiness scores for child health, i.e., they are less able to provide quality services for children living in those regions (Figure 8).⁶³

Similarly, children living in poverty and their families are often more reliant on fragile infrastructure (for instance unpaved roads) and are less able to protect themselves against disruptions to infrastructure services.⁶⁴

Figure 8: In 6 out of 8 countries, subnational regions facing higher climate risks are less able to provide quality health services for children



Source: Estimates based on Service Provision Assessments between 2010 and 2018 (Leslie et al. 2017). Data on risks of extreme weather events based on Thiery et al. (2021) and Save the Children (2022).

Overall, then, child poverty plays a significant role in increasing children’s exposure and vulnerability to extreme weather events, slow onset impacts and other climate-related shocks, making them

more likely to suffer harm and less able to cope with potential risks.

63 Leslie et al. (2017)

64 Hallegatte et al. (2016).



4. EXPERIENCING CLIMATE RISKS: EXTREME CLIMATE SHOCKS INCREASE CHILD POVERTY

Chapter summary

- Studies show that climate change leads to an increase in monetary poverty. However, a growing body of evidence also highlights the impact of extreme climate shocks and other environmental stresses on individual dimensions of multidimensional poverty, impacting children's education, health and living standards.
- For the first time, this analysis estimates the impact of extreme weather events on multidimensional child poverty, focusing on floods in Nigeria, Uganda and Malawi. The analysis found that children living inside a 5km buffer zone of flooded areas were on average 48 per cent more likely to experience multidimensional poverty compared to children living outside of this buffer zone, even after adjusting for other possible determinants of child poverty.
- A variety of direct and indirect impacts can lead to higher levels of child poverty, either because children and their families cannot escape poverty as they might have done in the absence of the disaster, are pushed deeper into poverty, or because previously non-poor children and families become newly poor.
- This shows that impacts of climate change and child poverty reinforce each other: not only are children living in poverty more vulnerable to the effects of climate change, but these effects also increase their likelihood of living in poverty, which establishes a vicious cycle unless policy measures are taken.

Climate shocks, stresses and hazards directly or indirectly increase dimensions of child poverty - malnutrition, housing, education, health, water and sanitation, among others - and therefore impact child poverty as a whole. In some cases, these impacts may only be temporary, for instance if schools need to close for a limited time. However, even short periods in poverty and/or experiencing deprivations of basic needs can have lifelong impacts. In many situations, climate-related shocks and stresses can contribute to lasting deprivations, for instance through prolonged periods of undernourishment, physical damages to homes or destruction of household livelihoods. Children have their whole life ahead of them and deprivations they

experience in their early years can have long-term developmental consequences, including impacts to physical growth, cognitive and socio-emotional skills, and progress in school.⁶⁵ Whether temporary or long-lasting, climate change clearly undermines current efforts for poverty alleviation and has the potential to exacerbate and perpetuate intergenerational cycles of poverty.

First, this chapter explores the negative impact of extreme climate events and other environmental stresses on *individual* dimensions of child poverty, such as education, malnutrition, health, housing, water and sanitation. In the second part, more light is shed on the *simultaneous* effects

65 UNICEF (2021a); Porter and Ford (2022).

on *multiple* dimensions used to measure child poverty, essential to inform multisectoral responses.

4.1 Climate risks increase individual material deprivations for children and families

A growing body of evidence highlights the various effects of extreme weather events and other environmental and climate-related stresses and hazards on individual dimensions of child poverty. Some consequences impact directly on children living in or vulnerable to poverty by immediately creating material deprivations - for instance, homes which are destroyed due to a disaster may result in a lack of shelter.⁶⁶ Similarly, damage to schools or health care facilities may directly impact children's access to those essential services. But many impacts on multidimensional child poverty due to shocks may happen indirectly and over time. For instance, price increases of essential goods or reduced household incomes may lead to lower spending on education, healthcare or food, affecting children's longer-term development outcomes and nutrition. Some families may take children out of school to help with domestic work or paid labour, directly increasing child poverty by depriving children of their access to education, but also leading to many other harmful child rights violations (see for instance Box 5 below).⁶⁷

Climate-related shocks impact children's **skills development, learning and access to education**, resulting in lower test scores, less learning time at home, reduced investments in education, and children temporarily or permanently dropping out of school.⁶⁸ In Ethiopia, children who experience drought and food price inflation, and those who experienced early childhood stunting, perform significantly worse in basic vocabulary and maths tests, especially children whose parents received little or no education.⁶⁹ Exposure to climate shocks during the first 1,000 days of life - particularly during the gestation period - can have long-lasting negative effects on a child's foundational cognitive skills, such as working memory and the ability to concentrate on a specific task (inhibitory control).⁷⁰ Climate-related events are currently disrupting the education of 40 million children each year.⁷¹ For instance, reduced household income due to crop failures in Vietnam has been found to directly impact the amount of time children spend in school, particularly for those from poorer households.⁷² A study from India has shown that higher temperatures reduce test scores for children.⁷³ **Girls are often disproportionately affected by these effects**, as additional household work or extra childcare responsibilities often fall to them.⁷⁴ It is estimated that by 2025 climate change will be a contributing factor in preventing at least 12.5 million girls from completing their education each year.⁷⁵

66 Diwakar et al. (2019).

67 Diwakar et al. (2019).

68 Garg, Jagnani, and Taraz (2020); Fishman, Carrillo, and Russ (2019); Porter and Ford (2022).

69 Berhane, Abay, and Woldehanna (2015); Woldehanna, Behrman and Araya (2017).

70 Pazos et al. (2023).

71 Theirworld (2018).

72 Porter and Ford (2022); Dung (2013).

73 Garg, Jagnani, and Taraz (2020).

74 Porter and Ford (2022); World Bank (2017).

75 Malala Fund (2021).

Extreme climate events such as floods and droughts have been found to increase **child malnutrition**, most notably stunting, through impacts on food production, household incomes, and food prices.⁷⁶ For instance, in West Africa, a study showed that a 2 °C increase in temperature led to an increase in the prevalence of stunting by 7.4 percentage points.⁷⁷ A modelling exercise predicts that, in 2030, the number of children affected by climate change-attributable stunting could range from 570,000 to more than 1 million.⁷⁸ Weather-related impacts on children are disproportionately affecting children living in areas with higher vulnerability, in rural settings, and those with a more limited road network.⁷⁹ When families struggle to afford and access nutritious diets, this can have severe long-lasting consequences on children, with studies even finding intergenerational effects.⁸⁰ The Young Lives study found that rainfall shocks and malnutrition experienced by adolescent girls prior to becoming pregnant can have a negative impact on their future children’s height, from infancy through to adolescence.⁸¹ Extreme weather shocks and climate change are also linked to broader impacts on **children’s health and well-being**. Among many other effects, this includes injuries, increases in the risk of respiratory and infectious diseases, deterioration of

children’s mental health, and reductions in access to health services once a child gets sick.⁸² Various studies show the impact of hotter temperatures on infant mortality in poorer countries, with effects especially pronounced in rural areas.⁸³ Evidence from Young Lives during the COVID-19 pandemic showed that young people from food insecure households had significantly worse symptoms of anxiety and depression.⁸⁴ Overall, the World Health Organization (WHO) estimates that between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths per year from malnutrition, malaria, diarrhoea and heat stress alone.⁸⁵ Climate-related effects can also increase ethnic disparities and pose a particular risks for people with disabilities.⁸⁶

Climate-related disasters often lead to **physical damage to housing as well as water and sanitation services**, resulting in a lack of shelter or contributing to longer-term displacements.⁸⁷

Finally, various studies show the impact of climate-related shocks and stresses on **household income and consumption**. While most of these analyses lack a focus on children, they provide insights into the impact of weather shocks on broader

76 Helldén et al. (2021); Phalkey et al. (2015); Blom, Ortiz-Bobea, and Hoddinott (2022); Lloyd et al. (2018); Mahapatra et al. (2021); Lloyd, Kovats, and Chalabi (2011)high-quality primary data on a range of factors (agricultural, environmental, socioeconomic, and health).

77 Blom, Ortiz-Bobea, and Hoddinott (2022).

78 Lloyd et al. (2018).

79 Mahapatra et al. (2021); Lloyd et al. (2018); Hirvonen, Sohnesen, and Bundervoet (2020)research examining the extent of effect vulnerability of agriculture to climate change can have on nutrition in India are scarce. This study examined a.

80 Randell, Gray, and Grace (2020); Chang, Favara, and Novella (2022); Porter and Ford (2022); Benny, Boyden, and Penny (2018); Woldehanna, Behrman, and Araya (2017)Favara, and Novella 2022; Porter and Ford 2022; Benny, Boyden, and Penny 2018; Woldehanna, Behrman, and Araya 2017.

81 Georgiadis et al. (2021).

82 Helldén et al. (2021); Watts et al. (2019); WHO (2023); Holm, Miller, and Balmes (2021); Carlson et al. (2023); Chioma et al. (2019)

83 Burgess et al. (2017); Geruso and Spears (2018); Banerjee and Maharaj (2020).

84 Porter et al. (2022).

85 WHO (2023).

86 Berberian, Gonzalez, and Cushing (2022); Stein and Stein (2022).

87 UNICEF (2021a); (2023).

monetary poverty measures and therefore parents' ability to invest in their children. A global panel dataset of subnational poverty in 134 countries finds that a 1 °C increase in temperature leads to a 9.1 per cent increase in poverty, as measured by extreme poverty (those living on less than PPP US\$1.90 per day).⁸⁸

A previous analysis focused on child poverty in three counties in Kenya found that the likelihood of a household being in poverty was 47 per cent higher when the number of disasters increased. However, the same study found the opposite to be true in India, where it was found that the likelihood of a household being in poverty was 53 per cent lower in areas that saw an increase in disasters over time, likely a consequence of pro-poor urban planning and improved governance, which improved resilience and reduced vulnerability of poorer communities.⁸⁹

An analysis by the World Bank, combining tens of thousands of socioeconomic and climate change scenarios, suggests that, by 2030, between 68 and 132 million additional people could find themselves struggling to survive on less than PPP\$1.90 per day due to environmental shocks.⁹⁰ The study also estimates how different climate impact channels may affect poverty, suggesting that health effects - increased prevalence of stunting, malaria, and diarrhoea - may lead to the largest increase in poverty, emphasising the need for better access to health care and universal health coverage. Health effects are particularly relevant in Asia, Sub-Saharan Africa, and Latin America and the Caribbean. Food price increases are the second most important factor, particularly in South Asia and Sub-Saharan Africa.⁹¹ These estimates echo our analysis in Chapter 2, highlighting how different pathways can affect poverty, as well as how those patterns may differ significantly between world regions and contexts.

88 Dang, Nguyen, and Trinh (2023)

89 Diwakar et al. (2019).

90 Jafino et al. (2020).

91 Ibid.

BOX 5: How climate change impacts violence against children

While this chapter mostly focuses on the impacts on material deprivations which constitute poverty, climate change also poses other serious risks which impact child rights. The WeWorld Index 2022,⁹² a flagship product of ChildFund Alliance, highlights the increasing risk of violence against children due to conflicts over resources, household deprivations, and forced migration. Children and adolescents are also more at risk of suffering physical and sexual violence, recruitment by armed groups, forced marriage, exploitation, and other forms of rights violations as a result of climate change.⁹³ This is especially true for girls, who are disproportionately impacted by climate change and, therefore, more exposed to threats to their livelihoods, health and safety. Girls are also less likely to be informed about the risks related to the onset of calamities due to the sociocultural norms in many of the communities where they live.⁹⁴ In addition, empirical evidence suggests that, when communities are forced to flee or move as a result of emergencies, they tend to adopt more conservative practices.⁹⁵ This exacerbates patriarchal customs and social norms which, combined with conditions of high stress and economic precariousness, expose girls to a higher risk of forced early marriage and female genital mutilation (FGM). This demonstrates that the climate crisis is both strongly intersectional and deeply unequal in its consequences. For instance, in Ethiopia, severe drought linked to the climate crisis and a multi-year civil conflict are compounding factors associated with high levels of food insecurity and mental distress, with those living in the poorest households most affected.⁹⁶

4.2 Climate shocks heighten risk of multiple simultaneous deprivations

While the evidence above highlights the negative impact of extreme climate events and other environmental stresses on individual dimensions of child poverty, the literature currently lacks a broader assessment on the simultaneous effects of more than one dimension and whether impacted children were already poor before.

For instance, while it may be clear that floods increase housing deprivations through damaging shelter and increasing food

insecurity, it is not known whether those two impacts affect the same children, and if those children have previously been poor. While this fact seems to be a more statistical question, those questions matter for decision makers when developing their policy response, as they will need to consider whether the children affected by a climate shock are already poor and therefore potentially covered by existing social protection systems, or whether they are newly poor as a result of the extreme climate event. Furthermore, if multiple deprivations occur to the same children at the same time, policy makers need to be able to evaluate the extent to

92 ChildFund Alliance (2022). For more information on ChildFund Alliance, visit <https://childfundalliance.org/>.

93 Barnfonden (2021).

94 UN Women (2016).

95 Child Protection Cluster (2015).

96 Ford, von Russdorf and Favara (2023); Porter et al. (2022); Ford and Freund (2022).

which social services equipped to provide a multisectoral response to enable children's needs to be met holistically.

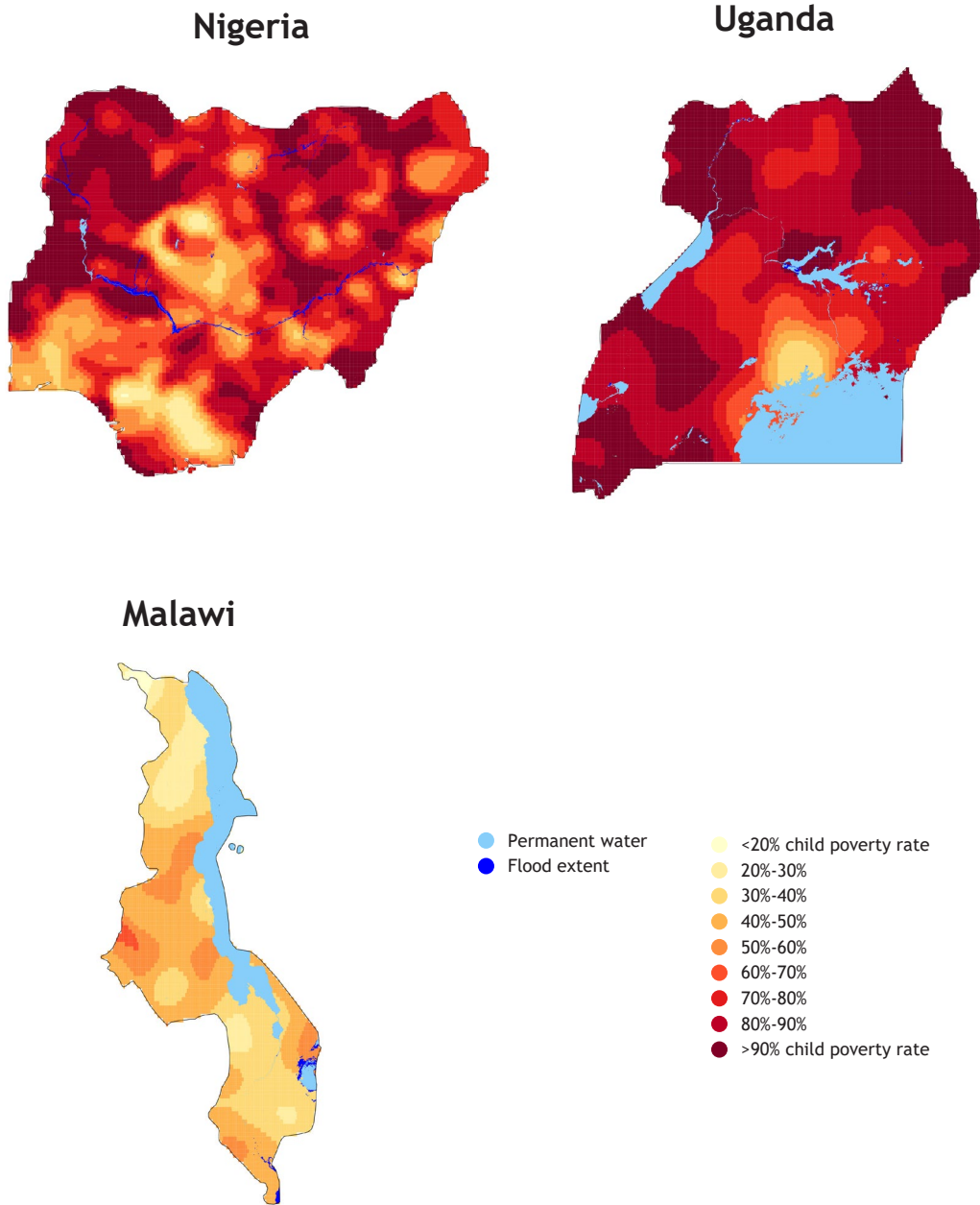
To assess the extent to which multidimensional poverty is affected by climate shocks, this report evaluated the prevalence of child poverty immediately following three major flood events in Africa (see box 6). When flooding inundates an area, it causes direct damage to homes and possessions. It may also affect critical infrastructure such as electricity and water supply systems, with impacts on water and sanitation services for households living in a wider area than that directly affected by flooding. Our analysis considered levels of child poverty amongst households located

within a 5km buffer zone around areas inundated by flooding. This aimed to ensure that our analysis considered households directly and indirectly affected by flooding.

Our individual-level analysis found that, across these three countries, children living inside a 5km buffer zone of flooded areas were on average 48 per cent more likely to experience child poverty compared to children living outside of this buffer zone, even after adjusting for other possible determinants of child poverty.⁹⁷ These impacts varied from country to country though: for instance, children affected by floods in Nigeria were 47 per cent more likely to be poor, while in Uganda the risk was significantly higher, at 96 per cent.

⁹⁷ The average risk of 48 per cent across three countries is calculated using the odds ratio of each country and weigh those by the sample size of each survey.

Figure 9: Children living inside a 5km buffer zone of flooded households were 48% more likely to be poor, even after adjusting for other possible determinants of child poverty



Source: Smoothed maps of multidimensional poverty based on UNICEF/Save the Children estimates using DHS data. Extend of flooding and permanent water from Global Flood Database.

Box 6: Multidimensional child poverty following floods

To establish the association between flooding and child poverty, geo-referenced Demographic and Health Surveys (DHS) across Africa were used. These have been carried out within a year of a major flood event. The data focuses on households in Malawi surveyed in the months following a flood in January 2015, which is estimated to have led to the internal displacement of 336,000 people; households in Nigeria, surveyed in the months following a flood in August 2018, which is estimated to have led to the internal displacement of 148,000 people; and households in Uganda, surveyed in the months following a flood in January 2016, which is estimated to have led to the displacement of 400 people. These major events have been recorded by the Dartmouth Flood Observatory and satellite-based flood maps using NASA data are publicly available in the Global Flood Database.⁹⁸

The analysis was divided in three steps. First, we visualized the spatial distribution of evaluated flood events and multidimensional child poverty across study countries. Second, flood maps were combined with geocoordinates of approximate survey locations to identify households that were located within 5 kms of a flood zone. Finally, we evaluated the relationship between the proximity to flood zones and multidimensional child poverty using a multivariable regression model. Our model also included other factors that may explain child poverty, including gender and age of the child, residence of the household (rural or urban), sex and age of the household head, the region within a country where the household is located, as well as other factors such as community slope, vegetation index, average temperature, and rainfall.⁹⁹

The results of our analysis point to a strong relationship between children's residence near to flooding and multidimensional child poverty. This would suggest that policies and programming aimed at building household's resilience to such hazards are yet to make a considerable difference in poverty reduction.

Other evidence suggested that impacts of disasters may vary significantly according to the age of the child, with younger children being at greater risk given their dependence on adults, while older children may be more exposed to direct behavioural, psychological and emotional impacts.¹⁰⁰ Similarly, studies have found previously that girls are

particularly affected by climate-related shocks, particularly in terms of health or education effects.

Without an earlier measure of child poverty before floods in Malawi, Nigeria or Uganda, it is not possible to know the extent to which this relationship may also be driven by pre-existing deprivations in access to services. Longitudinal data would be necessary for this in the future. Furthermore, it is known that human displacement is a negative consequence of flooding, so there is reason to think that the geo-spatial correlation between flooding and child poverty may be underestimated. Further research should also

98 The Global Flood Database is accessible at <https://global-flood-database.cloudtostreet.ai/>

99 A full methodological note can be found here: https://res.cloudinary.com/dmhlewc3v/image/upload/v1701175424/Methodology_Extreme_flooding_and_multidimensional_child_poverty_ee6106f79f.pdf?updated_at=2023-11-28T12:43:45.082Z

100 Diwakar et al. (2019).



account for the effect of human displacement during the aftermath of flooding events.

In conclusion, the variety of direct and indirect impacts explored in this chapter can lead to higher levels of child poverty, either because children and their families can't escape poverty as they might have

done in the absence of the disaster, or as previous non-poor children and families become newly poor. Furthermore, it may push already-poor children and families deeper into poverty or increase their likelihood of being multidimensionally poor across multiple indicators of poverty.



5. BUILDING RESILIENCE: REDUCING POVERTY BY INVESTING IN CHILDREN

Chapter summary

- Governments need to take ambitious action to limit global warming and integrate child priorities into ongoing green finance reforms. High-income countries need to provide funding for losses and damages through the provision of new and additional climate finance.
- In line with the four core actions to reduce child poverty outlined by the Global Coalition to End Child Poverty, governments should:
 1. **Make child poverty reduction a national priority** and ensure that any (child) poverty reduction plans or strategies work in tandem with climate change action plans, promoting a cross-governmental response.
 2. **Expand child-sensitive social protection** to strengthen households' resilience and coping strategies in response to climate shocks, stresses and hazards by investing in strong routine social protection systems, including child benefits, and enhance their shock responsiveness.
 3. **Improve access and prioritise funding for quality public services**, including education, healthcare, nutrition and water and sanitation, and make them more climate resilient.
 4. **Promote decent work and inclusive growth agenda** that is adjusted to the changing labour market in times of climate change, **including through skills training and livelihoods programmes that help adapt to climate change.**
- Effective action across all four areas above requires: the safe and meaningful **participation of children**; careful **consideration of gender, disability, indigeneity, and other forms of inequality** in all policy responses; more **child-focused, resilient and quality data systems**; and **more research** to understand how children in poverty experience and respond to the climate crisis throughout their lives.

As the previous chapters have shown, the climate crisis is already threatening child rights, preventing children from escaping poverty, and is pushing other children and their families into poverty. This impact is felt most by children, who are least responsible for the climate change causing those impacts.

Unless decisive action is taken, those impacts are unfortunately expected to worsen, as extreme climate events become more frequent and intense. Box 7 summarises some of the key actions that Governments should take to address climate change.

BOX 7: Decisive steps governments should take to address climate change

To stop climate change, governments should:

- **Take ambitious and urgent action now to limit global warming** to a maximum of 1.5°C above pre-industrial levels. Governments must increase the ambition of their Nationally Determined Contributions (NDCs) and redouble efforts to meet the goals of the Paris Agreement in the best interests of children, with high-income countries and historical emitters leading the way.
- **Rapidly phase out the use and subsidy of fossil fuels and other environmentally destructive practices**, urgently pursuing a just transition towards renewable and green energy sources and implementing measures to ensure equitable access for families most impacted by inequality and discrimination.
- **Adapt national public finance systems** to integrate child priorities into the green public finance agenda and reforms that governments are currently pursuing (including climate-sensitive budgets, taxation, debt management and investment opportunities) and prioritize investments to strengthen the climate resilience of child-critical social services and disaster risk reduction.
- High income countries should **urgently close the adaptation gap and provide funding for losses and damages** through the provision of new and additional climate finance, placing children and child-critical social services at the forefront of such efforts, with a particular focus on reaching children most at risk. Climate finance should be delivered primarily in the form of grants, particularly for adaptation and loss and damage.

Not only do the direct consequences of climate change, such as extreme weather events, impact children disproportionately, but so do climate change mitigation measures, such as energy taxes or fuel subsidy removals, if they are not designed in a way that takes existing inequalities and vulnerabilities - especially those of children - into account. For example, poorly designed climate action policies might result in higher costs for food, energy, housing or transport, which can be especially detrimental for low-income households which already spend a large portion of their income on basic necessities. Similarly, in the transition to greener economies, households might experience a reduction in income due to lack of access to

natural resources (such as in agriculture), unsustainable practices, and job losses (for example, during the phase-out of carbon-intensive industries or livelihoods that are directly and indirectly dependent on these). Similarly, climate change adaptation measures can have adverse impacts if not carried out correctly. This is why the **impacts of both climate change, and their mitigation and adaptation measures** need to be urgently considered in existing efforts to reduce child poverty, and vice versa.

A growing evidence base shows what is needed to prevent the worst consequences for children. And while contexts vary, the Global Coalition to End Child Poverty has laid out

four core actions which help to reduce child poverty in all its forms¹⁰¹:

1. **Make child poverty reduction a national priority**, reflecting this in national budgets, policies and laws, and ensuring that this is measured and routinely monitored.
2. **Expand child sensitive social protection**, including towards universal child benefits, and by ensuring other social transfer programmes and systems are working for children.
3. **Improve access and prioritise funding for quality public services**, especially ensuring that the poorest children have access to health and education services.
4. **Promote decent work and inclusive growth**, ensuring parents have access to decent employment and that economic growth leads to increases especially for the poorest families.

All four areas of action are crucial to reduce child poverty. This chapter will build on this policy agenda to highlight particular areas of action needed in the face of the climate crisis, identifying three cross-cutting enablers which are essential to drive forward any interventions. First, **children should take the lead** to demand bold action and change to address the climate crisis and to build a more just society for future generations. Second, any plans for action need to **consider gender, disability, indigeneity, and other forms of inequality**, to determine children's vulnerability to climate-related shocks and their ability to access relevant services. Third, understanding climate threats and social vulnerabilities requires **child-focused, resilient and quality data systems**.

101 Global Coalition to End Child Poverty (2022).

102 Ibid.

5.1 Making climate change and child poverty reduction a national priority

Building national support to reduce child poverty is crucial. This includes ensuring that child poverty is an explicit national policy priority, and reflected appropriately in national and subnational budgets, policies and laws.¹⁰² In the context of climate change, this means that any (child) poverty reduction plans or strategies should inter-connect with climate change action plans or strategies, as part of a larger set of integrated policies and frameworks.

Child poverty also needs to be properly measured and routinely monitored.

Measurement is always an important cornerstone of both meaningful reporting and accountability, as well as evidence-based policymaking. Without knowing how many children are poor, where these children live, and what causes them to be poor, policy responses and programmes cannot be designed effectively. This is even more important when it comes to the climate crisis: to build shock-responsive systems and protect children and families facing the highest risk, we need to understand climate risk assessments and child poverty analyses together.

Spatial analyses focused on specific geographic areas play an important role, as many of the climate impacts have a geographic dimension and understanding which regions and provinces within countries are most climate-affected and how this relates to existing patterns of child poverty is crucial (as illustrated in Chapter 2). But as mentioned earlier, vulnerability to extreme weather events varies significantly from one household to the next - even within the same region - and depends on many individual



factors such as housing, employment etc. This means that spatial analyses on their own are not sufficient to understand children's risks and design relevant policy responses. These kind of insights and analyses require strong and resilient data platforms: granular and meaningful measures of child poverty, climate

risks, availability and quality of health and education services etc. (see Box 8 below). In addition, we also need to have a context-specific understanding how different climate risks may impact child rights and well-being, something that is currently often still lacking.

BOX 8: Child-focused, resilient and quality data systems

Governments, international organisations, and civil society need high-quality, timely data and statistics on the situation of children. This is crucial both for planning, implementation and monitoring of programmes, but also for citizens to hold decision-makers accountable. More work is needed to mainstream children's data in national statistics. Furthermore, environmental and climate shocks require data systems that are flexible and able to adapt in times of crisis, compelling consideration of issues related to data preparation, the role of data in crisis, and data in prolonged conflict situations.

Data preparedness

Before the onset of a crisis or climate-related shock it is important to carry out an analysis of risks and vulnerabilities data systems may face. These risk assessments are similar to the type of analysis described through this report, but with a focus on how the shock may affect data collection, analysis, and dissemination, including if the data could be used in a timely fashion to make urgent decisions addressing the crisis. Pre-stocked geo-coded databases are one crucial element in this context, allowing the linking of different kinds of data to specific locations which are affected during crises. It is also important to have standards on quality and responsibility for data that will be collected and used in such extreme circumstances. In so far as the data are collected in humanitarian contexts, they may need to be shared across government departments, and sometimes with non-government agencies, including donors and external relief organizations. This often requires pre-existing data sharing agreements, including protocols to safeguard and protect the data. In some humanitarian contexts, there may be a need to rely on third parties to collect some data, and in those cases data providers should be ideally selected prior to the crisis.

Data in crisis

During emergencies, baseline data can be used and supplemented with pre-identified tools, following guidance on responsible data use for children.¹⁰³ Partnerships are key in those situations, both when using potentially existing private data, as well as when it comes to data analysis. Rapid assessments and other techniques to collect data may be used which will not be as reliable and representative as household surveys or administrative data but may be useful in a limited context to respond to a particular situation.

Data in prolonged conflict situations

For long-term emergencies and fragile contexts, the situation is different as data systems may have time to adjust and establish procedures akin to a 'normal' situation. However, issues may still arise with data collection, sampling frames etc. depending on the context, for instance in long-term refugee camps.

Similar to other shocks such as the COVID-19 pandemic, extreme climate events will cause systemic and cross-sectoral disruptions: for instance, a climate shock may destroy or disrupt the education and health services children rely on, may disrupt their parents' work, demolish local infrastructure, and result in higher food prices - all at the same time. **Such systemic shocks require systemic and coordinated responses across different sectors, and therefore cross-governmental response plans and strategies.** Human development systems in many countries need to be flexible to expand and contract quickly

with changing needs, promote interoperability and coordination across different sectors, and make more effective use of data and technology.¹⁰⁴

Measuring, recognizing and addressing the detrimental impacts of climate change on children requires government leadership but also engagement with multiple stakeholders, including research and academia, civil society, community leaders, and most importantly children living in poverty (see Box 9 on child participation).

¹⁰³ [Responsible Data for Children \(rd4c.org\)](https://www.responsibledataforchildren.org/)

¹⁰⁴ Schady et al. (2023).

BOX 9: Children taking the lead

To effectively address the impacts of climate change on child poverty, strategies and policies need to be based on both evidence and participation. The two are interlinked since gathering evidence requires the involvement of diverse actors, including individuals and children living in poverty and affected by climate change.

Under the Convention of the Rights of the Child (CRC), children’s participation is also their right. Children improve programmes and policies because they are experts about their own lives, needs and experiences. Children possess knowledge from their unique lived experience that may not be understood by the adult decision-makers in their lives¹⁰⁵

Meaningful participation of children requires four key components:

- **Space:** Children must be given the opportunity to express a view in safe and meaningful platforms
- **Voice:** Children must be facilitated to express their views
- **Audience:** The view must be listened to
- **Influence:** The view must be acted upon, as appropriate.

Empowering children and young people in climate- and child-poverty related processes involves taking actions to ensure their active involvement and meaningful participation.¹⁰⁶ This includes establishing platforms and initiatives that encourage children’s and young people’s participation, networking, and civic engagement.

These platforms should aim to raise awareness among young individuals and foster relationships among them. It is essential to tailor these engagement opportunities to be age-appropriate, culturally sensitive, and contextually relevant.

It also requires enhancing the knowledge and advocacy skills of children and young people and encouraging their active participation and leadership at various policy stages, including advocacy, development, implementation, monitoring, and evaluation.¹⁰⁷

¹⁰⁵ Global Coalition to End Child Poverty (2022).

¹⁰⁶ UNICEF (2021b).

¹⁰⁷ For more on how to include children in child poverty plans, see p. 17 of Global Coalition to End Child Poverty (2022) p.16 of UNICEF (2021b) on how to engage them in climate plans.

Engaging children and young people in climate plans in Saint Lucia¹⁰⁸

In a review of 103 countries with new or revised climate plans, otherwise known as Nationally Determined Contributions (NDCs), UNICEF found that only 12 per cent mention the direct involvement of children in the process, and 40 per cent mentioned that they involved young people.

While several countries actively engage adults through participatory processes, few countries include children and young people. An exception is Saint Lucia in the Eastern Caribbean. In 2020, the Department of Sustainable Development of Saint Lucia held a consultation with young people, with the support of UNICEF. The young people presented their views on the revision of the 2016 NDC and advocated for the country to sign the Declaration on Children, Youth and Climate Action, launched by several governments and young people at COP25.

In order to promote the consideration of children's perspectives in climate policies, UNICEF and the Caribbean Youth Environment Network (CYEN) engaged thousands of children and young people across the region between 2019 and 2021. They conducted consultations through youth networks, UNICEF's U-Report, and various online platforms to gather the needs, priorities, and ideas for action from the younger population. The insights provided by children and young people played a crucial role in the development of the Saint Lucia NDC as well as other important publications such as the *Caribbean Children Facing Climate Crisis* report and policy brief, and the *Climate, Environment and Energy Landscape Analysis for Children* (CEELAC) for the Eastern Caribbean Area. The consultations in Saint Lucia also contributed to the creation of a youth-friendly video about the NDCs, which will be shown to thousands of students in order to raise awareness and stimulate discussions on climate change in the Eastern Caribbean.

5.2 Expanding child-sensitive and shock-responsive social protection

Strong social protection systems are the cornerstone to build resilience for any (climate) shock

Social protection is key to reducing child poverty and closing prevailing inequalities. **Cash transfer programmes are one of the best-evidenced interventions addressing child poverty** and income security in the household and have been found to have

wide-ranging positive impacts on child-wellbeing, including on material well-being, secondary school enrolment, spending, and food security.¹⁰⁹ States have a legal obligation to ensure everyone has access to social protection, as recognised in international laws and agreements.¹¹⁰

In the face of recurring **extreme weather events and disasters**, routine social protection, i.e. programmes that are paid at regular intervals (not only during shocks), can play an essential role in building resilience

¹⁰⁸Based on UNICEF (2021b)

¹⁰⁹ Tirivayi, Waidler, and Otchere (2021); ILO and UNICEF (2023).

¹¹⁰ Global Coalition to End Child Poverty (2022).



and in minimising the negative impacts of disasters and shocks and helping households cope with the immediate consequences.¹¹¹ In addition to increasing households' coping and adaptive capacities, evidence from the Young Lives study in Ethiopia and Peru shows that social protection can also remediate the long-term negative impact of droughts and floods on children's development, by improving nutrition, removing the pressure on children to work and increasing access to education - leading to reduced physical stunting and improved cognitive skills. The positive impacts of social protection often extend well beyond the childhood years into adolescence and early adulthood, including the potential to mitigate intergenerational effects of climate shocks by supporting pregnant women in times of crisis.¹¹²

Universal child benefits (UCBs) in particular offer a simple and scalable approach to providing universal coverage of children and are a powerful means to realising every child's right to social protection.¹¹³ Given their broad coverage, universal child benefits can be quickly scaled or adjusted in times of emergency. For instance, in response to COVID-19, the South African government provided a monthly top-up payment for a period of six months to existing beneficiaries of the Child Support Grant.¹¹⁴

However, despite the overwhelming evidence and the broad political agreement, **only just over 1 out of 4 children globally aged 0-14 years receive a child or family benefit.** This number hides significant regional disparities,

with coverage ranging from 1 in 10 children in Sub-Saharan Africa to almost every child in Europe. However, the latter figure hides substantial differences within Europe and more importantly adequacy of transfers differs significantly among countries.¹¹⁵ Public investments in this area remain insufficient. Lower-income countries allocate as little as 0.1% of their GDP, while even upper-income countries only allocate 0.5 per cent of their GDP to social protection for children.¹¹⁶

In recent years, there has been an increasingly stronger focus on **cash plus programmes, which combine traditional cash transfers with additional services, providing an important entry point to building multisectoral systems.** This is particularly important given the wide-ranging impacts of climate change on different dimensions of child well-being, including education, nutrition, child protection, mental health, etc. (as illustrated in previous sections). A recent review, however, shows that most cash-plus programmes in settings of climate vulnerability aim to strengthen coping and adaptive capacities but more evidence is needed to understand how to better link cash plus interventions to longer-term adaptation measures.¹¹⁷

It is important to highlight that, in addition to cash transfers, other social protection programmes are also necessary to address the impacts of climate change and the possible adverse impacts of transitioning to greener economies, as clearly outlined by the ILO.¹¹⁸ While these social protection

111 See references in Pople et al. 2022

112 Ford, von Russdorf and Ahlborn (2023).

113 ILO and UNICEF (2023); Save the Children (2020).

114 UNICEF India (2023).

115 ILO and UNICEF (2023).

116 Ibid.

117 IDS (2023).

118 ILO (2023).

instruments usually do not specifically target families with children, they can still have indirect positive effects on them when they reside in households with individuals who receive these benefits. For instance, **unemployment benefits** can help individuals transition to new jobs, especially when combined with skills training (see also section 5.4). **Old age pensions** also serve as a bridge in the event of early retirement due to the inability to adapt to the transition process. This is particularly important in multi-generation households.

Scaling up social protection in advance or in the aftermath of a (climate) shock requires shock-responsive systems

A foundation of high coverage and existing registries and coordination mechanisms makes a crucial difference when scaling up existing social protection programmes in response to a shock, as the COVID-19 crisis has shown. Brazil and Jordan, for example, were countries that had relatively advanced social protection systems in place and were hence also able to respond more quickly and reach a larger share of the population. Jordan was able to make the first payment of its emergency benefit within nine days of the programme's launch, and in Brazil, the Emergency Aid programme reached 62 per cent of the population.¹¹⁹

More recently, evidence has shown the potential benefits of cash transfers that are paid just before the disaster hits, rather than waiting until the main damage is done.¹²⁰ This can help families evacuate, protect

themselves and their assets, support them when prices for essential goods increase, and ease financial and mental stress in the immediate aftermath.¹²¹ For example, an anticipatory cash transfer in 2020 to households facing floods in Bangladesh improved child food consumption even three months after the intervention.¹²²

In 2015, the Kenyan government effectively expanded the Hunger Safety Net Programme (HSNP) in preparation for the anticipated floods associated with the 2015-16 El Niño forecasts. As a result, around 190,000 pre-registered households that were not regular beneficiaries of the programme received anticipatory emergency payments.¹²³

Both anticipatory cash transfer systems or rapidly scaled-up social assistance after the shock require us to anticipate shocks and to know who potentially needs help. This means governments need to set up household registries as well as effective and reliable forecast systems—or even better, have already put in place comprehensive social protection systems—to make proper use of those.¹²⁴

However, in most countries, national systems still need to become more shock responsive. This includes providing enabling policy framework as well as strengthening coordination mechanisms to enhance the efficiency and effectiveness of the overall response in times of crisis across all relevant actors and developing a financing strategy. It also means reviewing and strengthening administrative and delivery systems to enable a) continuity of service delivery, and

119 UNICEF India (2023).

120 Pople et al. (2023); Save the Children (2020).

121 Pople et al. (2023).

122 Ibid.

123 Tozier de la Poterie et al. (2018).

124 Save the Children (2020).

b) the potential for flexing and scaling up in response to shocks.¹²⁵

In light of the climate crisis, the need for humanitarian assistance provided by international actors will continue to exist or even increase. It is therefore important that, whenever possible, humanitarian interventions are linked to existing social protection systems. This linkage helps to strengthen national systems and capacities, enabling governments to provide long-term support to those in need.

Previous experiences have also highlighted the often-challenging task of quickly including additional families in social protection programmes, including migrants and forcibly displaced persons.¹²⁶ Global data on access to social protection for displaced children is not available. However, it is likely that there are even higher gaps in coverage, as displaced children and their families are often excluded from policies and programmes or face administrative barriers to access national systems.¹²⁷ Migration flows will increase due to climate shocks and slow onset events, putting a greater responsibility on the international community to support governments in providing social protection.

Social protection can help support longer-term adaption and mitigation

If designed accordingly, social protection policies not only play an essential role in addressing immediate climate shocks, but can even incentivise activities that help

manage climate change, such as promoting afforestation or climate-smart livelihoods.¹²⁸

In Ethiopia, food-for-work schemes have been utilised to promote natural resource management practises such as soil and water conservation and afforestation.¹²⁹ In some cases, conservation practices are the indirect positive effect of programmes even without it being part of the design. For instance, Indonesia's national poverty alleviation programme *Leluarga Harapan* was estimated to have reduced tree cover loss in villages by 30 per cent, without any direct objective linked to conservation.¹³⁰ In other cases, cash transfer programmes were explicitly designed to incentivise behaviour that help manage climate change. For example, Brazil's *Bolsa Floresta* programme offers a monthly payment to low-income households if they commit to zero deforestation and enrol their children in school.¹³¹

Social protection should be a fundamental component of our standard toolkit when responding to the climate crisis. However, in certain cases, the effectiveness of the response may be significantly limited due to the magnitude of losses during disaster. Therefore, we need to complement social protection systems with other risk management tools. In many wealthier countries, both public and private insurance play an essential role in safeguarding households and individuals from the large effects of sudden shocks. Additionally, insurance helps to foster resilience against extreme weather events.¹³² However insurance systems are much less developed

125 UNICEF (2019).

126 ILO and UNICEF (2023).

127 Holmes and Lowe (2023).

128 Rigolini (2020); Costella et al. (2023).

129 Bezu and Holden (2008).

130 Ferraro and Simorangkir (2020); Malerba (2020).

131 Costella et al. (2021).

132 Kala, Balboni and Bhogale (2023); Karlan et al. (2014).

in many low- and middle-income countries, and the uptake of such products, such as weather insurances for agriculture purposes, is often low.¹³³ The World Food Programme's R4 Rural Resilience Initiative provides an interesting example. While the crop insurance provided through the programme protects farmers against extreme climate events, activities under the cash-for-work component help them build assets and invest in natural resources management.¹³⁴ Yet, it is important to keep in mind that insurance-based

initiatives are only one element of the policy response and usually require subsidies to cover large share of poorer people.

In all of the responses above, it is key to consider the specific needs and vulnerabilities men and women, boys and girls, depending on their gender, age, ethnicity and disability, and design policies that do not reinforce existing inequalities but ideally transform them (see Box 10).

BOX 10: Gender and Intersectional Inequalities

Men and women, boys and girls experience climate change and its related shocks differently due to gendered norms, roles, and responsibilities. These differences impact both exposure to climate-related shocks and influence the coping strategies used to mitigate the impact. For instance, agriculture is the most important employment sector for women in low- and middle-income countries. Crop failures can result in added pressure on girls, who may be taken out of school to help their mothers. Moreover, since climate change continues to cause conflict globally, women and girls face increased risk of gender-based violence, including conflict-related sexual violence, human trafficking, child marriage, and other forms of aggression. Pregnant women and young mothers may be particularly vulnerable to climate shocks and nutritional deficits affecting both their own health and well-being and their children's development.

Children with disabilities face additional challenges due to discrimination or limited mobility, which can increase their vulnerability. Other markers of inequality, such as race or ethnicity, also determine children's vulnerability to climate-related shocks and their ability to access relevant services.

Unfortunately, social protection programmes and other policies aimed at addressing the impacts of climate change often fail to consider the differential impacts of climate change based on gender, age, ethnicity and disability. Therefore, there is a crucial need to collect more disaggregated data during monitoring and evaluation processes, in order to analyse the varying impacts of programmes on different groups. By doing so, policymakers and practitioners can better understand and address the specific challenges faced by different groups, ensuring more effective and inclusive responses to the impacts of climate change.

133 Kala, Balboni and Bhogale (2023); Mubarak and Rosenzweig (2013); Fiala (2017).

134 World Food Programme (2023).



Scaling up social protection systems requires increased and progressive domestic resource mobilization and improved public finance management, as well as the exploration of a wider range of innovative instruments, including disaster risk financing. Moreover, recent global climate change-related financing initiatives, such as the Global Shield, the Loss and Damage Fund as well as the Global Environment Facility and the Green Climate Fund should be further explored to finance not only emergency assistance in the aftermath of a climate shock but also more long-term social protection systems that are shock-responsive and build resilience.¹³⁵

5.3 Improving access and prioritising funding for climate resilient quality public services

Access to education, healthcare, nutrition and water and sanitation are essential components to reduce child poverty and improve the overall well-being of children. Providing high-quality and accessible services to every child is not only a basic child right with long-term impacts on their ability to participate in society, but it is also sound economics.¹³⁶ It is imperative to ensure that services and systems central to child well-being continue to operate in the aftermath of climate shocks.¹³⁷ For instance, ‘climate-smart education systems’ ensure that education is resilient and inclusive in the face of shocks: this includes ensuring that school buildings are physically able to withstand climate impacts, developing contingency plans in case schools are destroyed, and including disaster risk reduction in school curricula in

particularly high-risk contexts.¹³⁸ Protecting early childhood education in times of crisis is equally important for children’s long-term development; while the link between preschool attendance and stronger cognitive skills is well established, evidence from the Young Lives study also shows that regularly attending pre-school is associated with higher social and emotional skills throughout childhood and adolescence.¹³⁹

Investment in preparedness is of paramount importance to ensure that education and health systems are resilient and adaptable in times of crisis. For instance, Save the Children developed the Education in Emergencies (EiE) Day 1 approach to increase the speed and quality of initial education responses from the first day of a crisis, which were then put to an immediate test in Pakistan when the flooding started. The approach enabled stronger coordination with relevant stakeholders and therefore a swift response in mapping affected areas, collecting data, and identifying geographic locations for interventions. The collection and prepositioning of teaching materials, the advanced preparation of lifesaving messages on health, nutrition and hygiene, and the pre-vetting of staff for scale-up allowed for a much faster, more effective response.¹⁴⁰

Again, shocks particularly hurt poor and already disadvantaged children, who often face additional barriers to access services during shocks. For instance, while schools and education services may need to be delivered remotely in the aftermath of a climate shock, globally, only 16 per cent of children and young people from the poorest 20 per cent of

135 Sitko, Knowles and Bhalla (2023).

136 African Child Policy Forum (2023).

137 Diwakar et al. (2019).

138 FCDO (2022).

139 Favara et al. (2017); Arapa et al. (2021).

140 Save the Children, Child Rights Resource Centre (2022).

households can access the internet at home, compared to 58 per cent of those from the richest 20 per cent.¹⁴¹

Health systems strengthening, with explicit attention to community-level services, actors and partnerships is a crucial climate adaptation strategy. Primary health care plays an especially important role when healthcare access may be compromised because of the disruptions to transport, energy, communication and supply chain networks during and following climate-related shocks. Ongoing health systems strengthening work needs therefore address climate-sensitive health outcomes that are already being experienced and which are expected to be exacerbated over time. This requires improving information systems, training health workers, conducting vulnerability and adaptation assessments - all of which are underpinned by effective and scaled-up financing for health systems. Universal Health Coverage (UHC) cannot be achieved without addressing climate change, just as societal climate resilience depends upon alignment with health systems strengthening efforts including the expansion of UHC and primary health care. Making public services shock-responsive is particularly important in more risk-prone regions, but previous studies and a quick novel analysis of health services suggest that they have often a longer way to go.¹⁴²

Infrastructure and housing are another key area that will require increased investment in light of the climate crisis. As highlighted by Habitat for Humanity International, UN Habitat and UNICEF¹⁴³, tackling the housing deficit is part of a multifaceted approach to reducing the impact of the climate crisis in

cities. While housing is not the solution to the larger issue, it is a way to mitigate some of the risks associated with climate change. Disaster resilient housing and infrastructure (e.g., paved roads, storm and surface drainage, piped water), voluntary relocations, energy-efficient housing, and climate change mitigation by reducing the carbon footprint by using more local and environmentally friendly materials are some of the policies that can be adopted.

5.4 Promoting decent work and inclusive growth in the transition to greener economies

Economic growth and access to decent employment are essential elements of reducing poverty. Parental employment is a key determinant of child poverty, shaping various outcomes that are linked to poverty such as level of earnings, access to social security, and the amount of time parents can spend with their children.¹⁴⁴

The climate crisis will require larger economic shifts towards green growth and a more sustainable economic system. This path will vary significantly from country to country, as different countries are at different stages of development. Governments should also be mindful that such structural changes are often accompanied by social disruptions. Some countries are already experiencing deepened social division where governments have taken measures that increase the costs of energy for poorer households in an attempt to regulate consumption of fossil fuels, without taking sufficient steps to achieve protect poorer households' income.¹⁴⁵

141 UNICEF and International Telecommunication Union (2021).

142 Diwakar et al. (2019).

143 UN Habitat (2022).

144 Global Coalition to End Child Poverty (2022).

145 Save the Children (2022).



The ILO estimates that efforts to combat climate change may lead to the loss or elimination of 6 million jobs in carbon-intensive sectors like energy, industry, transportation, and agriculture/forestry. At the same time, it is projected that around 24 million new jobs could be created in the green economy. However, it is important to note that while there may be a net gain in employment, certain sectors, regions, and specific population groups may experience significant negative impacts at different times. These include self-employed individuals, temporary or part-time workers (especially women), and those working in the informal economy or as migrant workers.¹⁴⁶ This shows that just transition plans are needed to ensure that these impacts are minimised. Child rights impact assessment should be an integral component of such transition strategies and plans.

A recent study by Plan International surveying over 2,000 young persons from 52 countries found that many young people felt they lacked the necessary start-up capital and skills to move into green jobs.¹⁴⁷ Future action should prioritize increased training and education on green skills and climate change. It is especially important to address gender-specific barriers to accessing decent work. For example, the study showed that young women commonly perceive a lack of skills as a primary barrier, highlighting the need to provide targeted skill-building programmes and resources to bridge this gap, while young men often identify the requirement for start-up capital as the main obstacle. Examples of

relevant training include Technical Vocational Education and Training (TVET) on topics such as solar photovoltaic systems, solar water heating systems, and energy efficiency.¹⁴⁸ Evidence from the Young Lives in India also highlights the importance of higher education in accessing decent work, particularly for young women. However, even with increasing enrolment of young women in higher education, gender inequalities in graduation rates continues to hold young women back, particularly those from the poorest households. Ensuring young women are fully supported to move into green jobs will therefore require challenging discriminatory gender norms and socio-economic constraints, including the unequal burden of unpaid care work, limited access to affordable childcare, and early marriage.¹⁴⁹

To adapt to the impacts of climate change also means making livelihoods more resilient by improving the resistance of agriculture to climate shocks. This can be done by, for example, **livelihood programmes** that help small scale farmers to adapt to climate change. The Adaptation for Smallholder Agriculture Programme (ASAP) is an example of a programme that channels climate finance to smallholder farmers so they can access the tools and technologies that help build their resilience to climate change. ASAP provides community-based organizations with new climate risk management skills, information and technologies, such as weather station networks, and combine them with tried and tested approaches to sustainable land and water management.¹⁵⁰

146 ILO (2023).

147 Plan International (2022).

148 See an example from Mexico here: <https://iyfglobal.org/initiatives/green-skills#:~:text=Green%20skills%20offers%20six%20technical.and%20Technical%20English%20for%20Energy>

149 Singh and Mukherjee (2022); Ford et al. (2023).

150 United Nations Climate Change (2023).

6. CONCLUSION

Children are already bearing the brunt of the climate crisis, despite contributing the least to it. This paper sheds light on the impact of climate risks on the world's goal to reduce child poverty and lays out policies and programmes that equip us to strengthen children's resilience and continue to drive progress for children living in poverty.

The report highlights that child poverty is both a driver of vulnerability as well as a result of the overall climate risk. Children living in poorer provinces across low- and middle-income countries are often disproportionately at risk of extreme weather events. Furthermore, children living in poverty are often more likely to suffer harm and their families are often lacking the capacity to respond to negative effects or to adapt to a changing climate. This higher exposure and vulnerability of children in poverty is reflected in increased climate risk, with extreme weather events, slow onset impacts and other climate-related shocks exacerbating poverty.

In 2021, the Coalition to End Child Poverty laid out four core actions that help reduce child poverty in all its forms: 1) making child poverty reduction a national priority; 2) expanding child-sensitive social protection; 3) improving access and prioritising funding for quality public services; and 4) promoting decent work and inclusive growth. This report builds on this policy agenda to highlight particular areas of action needed in the face of the climate crisis, shows Three cross-cutting enablers will drive forward action in those areas: first, children should take the lead to demand action and change, as listening to them and building on their experiences will be crucial for policymakers. Second, gender and other markers of inequality, such as disability, need to be

considered throughout any policy cycle, including during data collection, planning and implementation. Three, child-focused, resilient, and quality data systems are crucial to provide evidence and illustrate where action is most needed.

Climate risk for children is critically influenced by the extent to which children and their families can access social protection and basic services such as health and education, which in turn increase resilience before a climate shock and enable recovery afterwards. Similarly, wider economic developments and the sustainability of livelihoods directly impact children's overall risk of the climate crisis. Therefore, reducing exposure and vulnerability to hazards and increasing children's and families' capacity to prepare for, cope with, and respond to these events is crucial to reduce the impact of shocks on many dimensions of child poverty.

Our analysis also showed significant differences in the types of risks that affect child poverty in different contexts. Some policies may be more relevant in some contexts than in others. For instance, while more direct impacts on household incomes may require shock-responsive social protection systems, risks exacerbating health problems may call for better preparedness in public service provision. For example, the risk of crop failures was found to be particularly strong in already poor communities in the Middle East and Northern Africa, as well as in West and Central Africa. This was similarly the case for droughts in South Asia, East Asia and Pacific, and Eastern Europe and Central Asia. Therefore, countries in those regions may want to focus particularly on ensuring that livelihoods are resilient to changing climate patterns, including providing financial support if food prices increase in the aftermath



of such shocks. However, higher flood risk was more associated with poorer regions in Latin America and the Caribbean, and East Asia and the Pacific. Such sudden shocks can lead to the destruction of property and significant disruptions of public services, and consequently, countries in those regions may want to place particular focus on social protection and the resilience of public services. Those kinds of risks might also be especially relevant for anticipatory action or broader insurance schemes.

These examples are merely illustrations based on the analysis presented in Chapter 2. Ultimately, this decision falls to individual countries, which need to be able to determine the risks they are facing and plan accordingly on how they can build resilience most effectively. However, such plans will need to be based on child-focused, resilient and quality data. They should also take into account gender and intersecting inequalities and recognise children as agents of change.

Lastly, a comprehensive approach is needed to reduce child poverty in the face of the climate crisis. There is an opportunity to learn from experiences during the COVID-19 pandemic, when fragmented and isolated efforts across different sectors exposed systemic weaknesses in how governments tackle multidimensional problems. These experiences highlight that integrated policy approaches that take into account the interplay and dependencies within the system are vital to success. This includes implementing data systems and government response plans that can effectively identify vulnerabilities and enhance resilience for the most disadvantaged children and their families.

Action is urgently needed now so that the climate crisis doesn't plunge the most vulnerable further into the depths of poverty, but rather protects children living in poverty and their families against these risks so that they can escape the scourge of poverty.

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About the Global Coalition to End Child Poverty

The Coalition is a network of like-minded organizations concerned at the devastating effects of poverty in childhood on children and societies. The Coalition promotes the need for countries and development actors to explicitly focus on child poverty and the solutions to it in national, subnational, regional and global policies, budgets and monitoring systems.

Coalition participants share a vision of a world where all children grow up free from poverty, deprivation and exclusion. Working together through the Coalition, as well as independently, Coalition participants aim to support the recognition of child poverty and the practical actions to alleviate it.



**END CHILD
POVERTY**
GLOBAL COALITION

