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# Protect a generation: Climate security for India's children



Save the  
Children

# Preface

Save the Children, India and PwC India Foundation (PwCIF) have come together to focus on the globally critical issue of climate change and its impact on children. Climate change is one of the most significant issues impacting not just the lives of children, but also the timely accomplishment of the Sustainable Development Goals, as set by the United Nations (UN). It is imperative to develop climate-resilient policies and programme frameworks with children at the centre of all the action. These policies and frameworks would be helpful in mitigating climate-induced risks and pave the way for a safer future for children.

It gives us immense pleasure to share this report based on empirical evidence collected from the three states of Uttarakhand, Madhya Pradesh and West Bengal. The report has analysed findings from three regions that differ in terms of geography and exposure to climatic hazards. The report identifies how the children in these regions are impacted by climate change and the factors affecting their vulnerability. These children are exposed to the threats of mortality and morbidity, along with compromised education and food and nutrition security.

Save the Children, India is one of the world's largest non-governmental organisations and frontrunners in responding to emergencies and humanitarian crises. Humanitarian action at Save the Children, India is built upon the organisation's vision of a world in which every child realises its right to survival, protection, development and participation. It is this vision that governs the organisation's approach to assessing issues and designing interventions that are sensitive towards the needs of vulnerable families and communities. PwCIF, through collaborations for humanitarian action, has supported projects to rebuild infrastructure and encourage resilience in communities through training and awareness building in the wake of natural disasters. PwCIF's experience in complex geographies, including Jammu and Kashmir, post-flood Kerala, drought-prone Maharashtra and Madhya Pradesh, as well as cyclone-impacted Odisha has developed our understanding and response framework as a private sector entity. Through projects and research on issues related to children, PwCIF has also provided insights into the vulnerabilities of children and is committed to creating a more child-friendly and safe environment for children to realise their rights.

Through this research, Save the Children, India and PwC India Foundation have tried to voice the challenges faced by children during times of climatic crisis and sought to provide a series of practical and feasible strategies that are essential for building resilience among children in India.

We hope this report forms the basis for further evidence generation, informed advocacy and policymaking to bring about lasting changes in the lives of children in India and beyond.



**Bidisha Pillai**

CEO, Save the Children, India

**Jaivir Singh**

Leader, PwC's Global Office for Humanitarian Affairs  
Vice Chairman, PwC India Foundation



## MESSAGE FROM DIA MIRZA, ARTIST AMBASSADOR, SAVE THE CHILDREN, INDIA

India, we know, is one of the most vulnerable countries facing the impact of Climate crises. We know from evidence that women and children remain most affected in extreme climatic events like floods and drought.

Nature is constantly giving us warning sign urging our immediate attention to ensure we do our best to protect our present and future generations.

This crucial report reinforces the vulnerabilities that children from most marginalised households face, especially during any extreme climate events. We often are unaware that that the impact of such events on children are more long term, jeopardizing their present and future.

What this report does most importantly is gives voice to the concerns of vulnerable children and offers solutions by including them in the adaptation process, so children and communities are resilient to future disasters.

The well-timed report indicates the impact of climate change on the children's rights to survive, thrive and be protected from harm. It raises a **red alert** to **act now** or stand to lose all the gains we have made for children in the last few decades.

It is encouraging to see voices and action by children captured in the report. Children know the truth and they speak the truth. They speak plainly; they ask simple questions. And the great part about this is that they are not only asking us the right questions, but they are also saying that they want to work with us to fix these problems that pose a threat to us.

Climate change is real, it is happening all around us. And Investing in children today is the only way to achieve sustainable development in years to come.

India has made tremendous changes in our climate change policies and mitigation tactics. But our work is far from over. India is key to the world achieving the **Sustainable Development Goals**, if we miss our chance to change, the world will stand to lose. This is a fight we must win!

It is achievable, if there is public, private partnership. Private doesn't end at the industry. It begins with industry, government, with policy, with lawmakers, inter-state, inter-governmental, civil society, community and children. What can I do at the individual level? These questions need to be asked.

It is possible. As a society, we have witnessed our will and ability to unite for a common purpose. During the pandemic the entire world saw a drastic reduction in air, water and land pollution.

It gives me hope, it makes me dream. We must protect our planet, because we have nowhere else to go.

We need to work together to achieve the *Sustainable Development Goals* and ensure as we walk into the *new normal*, we build back better, greener and safer- for people and planet. The tide is in our favour to change our consumption patterns and reduce the stress inflicted on nature. We can change climate for the better if we act now- as a united people.

The time is now to stand together and learn from our mistakes. I am confident that we must and will do *whatever it takes* to rewrite the future.



**Dia Mirza**  
**Artist Ambassador, Save the Children**  
**UN Environment Goodwill Ambassador for India**



# Executive summary

## Need for the study

Climate change is one of the key areas of concern for India. Human activities worldwide have caused approximately 1° C of global warming above pre-industrial levels.<sup>1</sup> This rise in global temperature is likely to reach 1.5° C between 2030 and 2052 if carbon dioxide emissions continue to increase at the current rate of 0.6%.<sup>2</sup> The increase in global mean surface temperature, which was 1.48° C in 1986–2005, could be as high as 4.8° C by the end of the twenty-first century (2081–2100).<sup>3</sup> The rising global temperature impacts health, livelihoods, food security, water supply, human security and economic growth. These effects are projected to increase with global warming. Moreover, shifting weather patterns are expected to threaten food production and raise sea levels, thus increasing the risk of severe floods. The impact of climate change is global in scope and unprecedented in scale. Disadvantaged and vulnerable populations (including children), indigenous people and local communities dependent on agricultural or coastal livelihoods are at a disproportionately higher risk of adverse consequences due to climate change. According to the Global Climate Risk Index of 2020, India is the fifth-most vulnerable country to climate change impact.<sup>4</sup>



<sup>1</sup> IPCC, 2018: Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty

<sup>2</sup> Global Carbon Project (2019) Carbon budget and trends 2019

<sup>3</sup> IPCC, 2018

<sup>4</sup> Eckstein, D., Wings, M., Künzel, V. and Schäfer, L., 2019. Global Climate Risk Index 2020

According to a report by the United Nations Children's Fund (UNICEF), climate change will increasingly and disproportionately affect children.<sup>5</sup> Climate change can impact children through increased morbidity and mortality due to extreme weather events and subsequent disasters, water scarcity and food insecurity, air pollution, and vector- and waterborne diseases. Moreover, it also has an impact on children's mental health.<sup>6</sup> Other potential effects of climate change on children are orphanhood, trafficking, child labour, loss of education and development opportunities, separation from family, homelessness, begging, trauma, emotional disruption, illnesses, etc. A recent study has found that children in disaster-prone areas in India are twice as likely to be living in chronic poverty than to escape poverty and three times as likely to become impoverished.<sup>7</sup>

The Paris Agreement, which was ratified in December 2015 and is considered to be a landmark global action plan to tackle climate change, acknowledges the importance of protecting the rights of children and ensuring intergenerational equity. Resolution 32/33 of the Human Rights Council (HRC) of the United Nations (UN) on human rights and climate change emphasises the importance of addressing the adverse consequences of climate change, especially on children from disadvantaged backgrounds, as a human rights obligation.<sup>8</sup> This necessitates an in-depth study on how child rights are affected by climate change.

Against the background of multiplying vulnerabilities for children in many states of India over the last few years, **PwC India Foundation and Save the Children, India (Bal Raksha Bharat)** sought to improve their understanding of the direct and indirect impact of climate change on children, especially in rural India. A detailed vulnerability, risk and impact assessment was carried out in three states with varying geographies (Madhya Pradesh, West Bengal and Uttarakhand), with the aim of providing insights into vulnerabilities, adaptation practices and the effectiveness of these practices. The states were selected based on their distinctiveness in terms of the type of environmental and geographic context as well as exposure to climate hazards. A detailed survey and analysis were conducted to explain the impact of multiple climate change induced insecurities related to livelihood, health, hygiene, nutrition, education, etc., on children.

This report is the outcome of a year-long study through which we aimed to build an evidence base of the impact of climate change on children and key factors that make children vulnerable to such impact. The report advocates the implementation of child-centric adaptation strategies, along with the integration of a child focus in the general climate action commitments by the country.

The specific objectives of the study were:

- to assess the risks and impact of climate change on children in geographic regions where they are exposed to frequent and intense climatic hazards and are vulnerable to such hazards due to intrinsic socio-economic conditions
- to identify risk mitigation and adaptation measures in the short, medium, and long term to reduce the impact of climate change on children
- to propose a roadmap for implementation of identified climate change adaptation strategies.



5 UNICEF Office of Research (2014). 'The Challenges of Climate Change: Children on the front line'

6 OHCHR, 2017, *Analytical study on the relationship between climate change and effective enjoyment of the rights of the child*

7 Diwakar, V, et.al. 2019, *Child poverty, disasters and climate change*

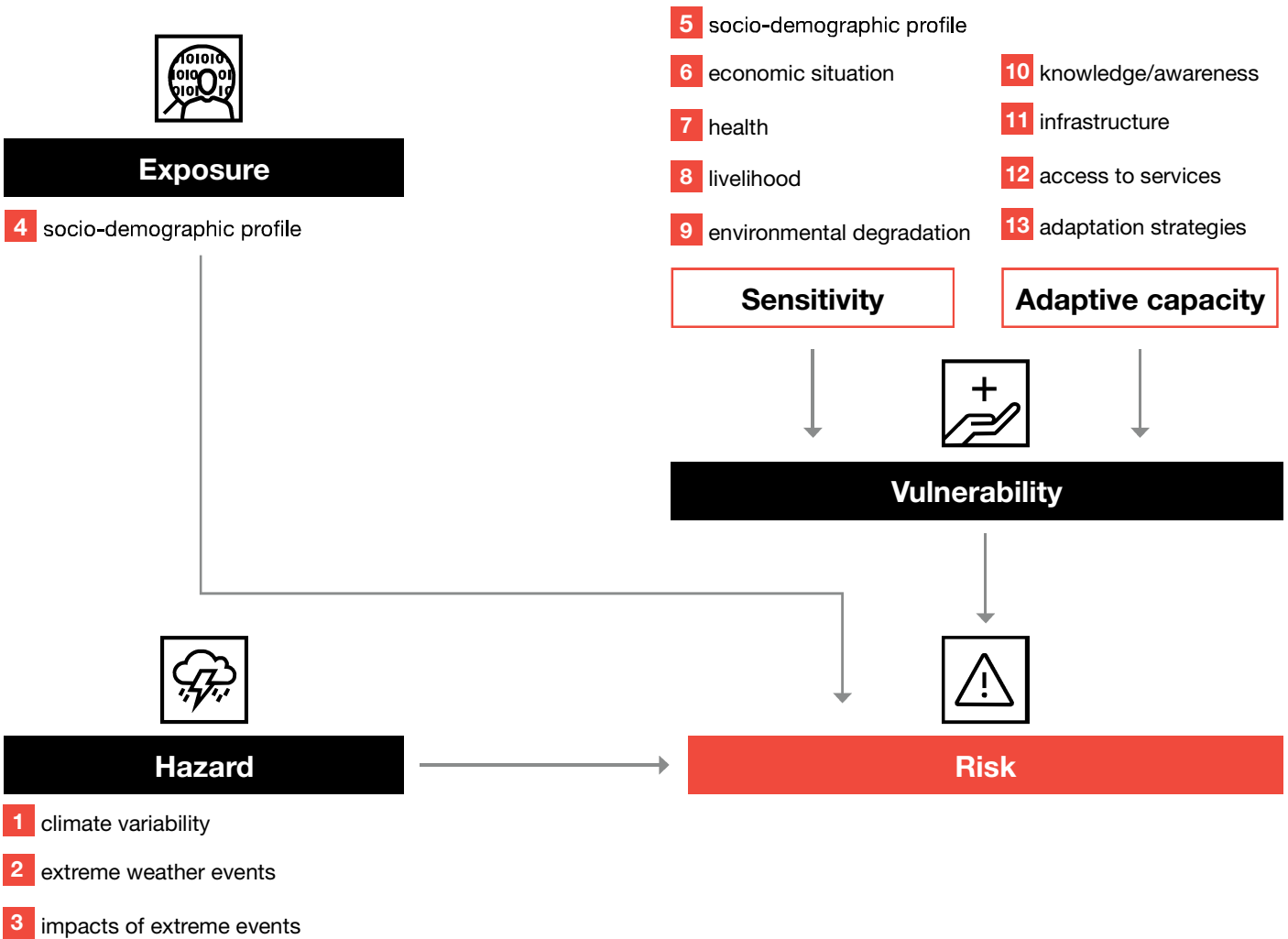
8 Human rights Council (HRC), 2016. *Resolution adopted by the Human Rights Council on 1 July 2016 - 32/33. Human rights and climate change*

# Methodology of the study

The risk and impact assessment methodology adopted in this study (Figure A) has its basis in the risk/impact framework laid out in the Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC), which defines climate change risk or impact as a function of three components (hazard, exposure, and vulnerability). Impact

is the measurable outcome of a hazard interacting with a vulnerable system. Hence, impact is a factor of the vulnerability of a system, the nature of a hazard, and the chances of such a hazard occurring at the place where the system is located. Vulnerability is defined as a system property arising out of its sensitivity and adaptive capacity.

Figure A: Methodology for risk assessment (Source: PwC analysis)



The findings from the vulnerability assessment using the IPCC’s AR5 framework were studied from the lens of the United Nations Convention on the Rights of the Child (UNCRC) framework, commonly known as the Rights Framework for Children. The United Nations Convention on the Rights of the Child (UNCRC) is an international legal framework that defines

the fundamental rights of children under four themes – survival rights, development rights, protection rights, and participation rights of the child, and lays out responsibilities of governments towards protecting those rights. The essence of the four themes is presented in Figure B.



**Figure B: Child rights themes under the UNCRC**



Geographic scope for this study was defined based on historical information on exposure to climate-related hazards and distinctiveness in terms of the type of ecosystem for conducting this assessment of the impact of climate change on child rights. A two-stage process was followed: identification of vulnerable states and subsequent selection of districts in the identified states as study regions. The states identified through this exercise were prioritised based on certain parameters (child sex ratio, school dropout rates, prevalence of diarrhoea, etc.) and three states – West Bengal, Uttarakhand, and Madhya Pradesh – were selected. Finally, a six districts (two from each of the states) were finalised: Khargone and Morena in Madhya Pradesh; Haridwar and Uttarkashi in Uttarakhand; and Purulia and South 24 Parganas West Bengal.

Primary and secondary data was collected to conduct this study. A mixed method approach was used to collect primary data, which involved the use of a combination of quantitative methods like household surveys (through the World Bank survey app) and qualitative methods like focus group discussions (FGDs) and key informant interviews (KIIs) with stakeholders and local government officials. Secondary data for this study was gathered through an exhaustive literature review. The Statistical Package for the Social Sciences (SPSS) software was used to analyse the basic features of the obtained survey data. A total of 57 theoretically important and policy-relevant bio-physical and socio-economic variables

(sub-components) were selected under 13 major components for each of the factors of risk in the framework. The findings were then classified as per IPCC's AR5 framework working definitions, hazard, exposure, vulnerability (sensitivity and adaptive capacity), and the risk-impact aspects.

## Summary of findings

Children bear the brunt of climate change as it affects their fundamental right to survival, development, protection and participation. They are particularly susceptible to injuries during extreme weather events due to their lack of capacity to understand and respond well to danger. They face emotional distress in the aftermath of climate-related disasters due to high rates of sleep disturbance, loss of life and property, and other psycho-social issues. They are also more susceptible to water- and vector-borne diseases. Further, their education and academic performances get affected due to climate-related disasters. In extreme cases, they are forced to drop out of school to support the needs of their households. In some cases, indebtedness of households due to poor agricultural productivity has led to children dropping out of schools.

Decrease in groundwater levels has affected the availability of drinking water and dehydration was observed among children. It was also observed that children faced difficulties in availing medical treatment post a climate-related disaster due to inaccessibility of hospitals in some regions. This was in addition to the difficulties they faced in navigating their way to schools. In some poor families, the education of children was a low priority as families migrated out of their villages in search of subsistence livelihoods.



9 IPCC, 2014: Annex II: Glossary [Mach, K.J., S. Planton and C. von Stechow (eds.)]. In: *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report*

The following is a summary of the main findings using the IPCC AR5 framework:

## Hazards – increase in frequency and intensity

Hazards are understood as the potential occurrence of a natural or human-induced physical event, trend or physical impact that may cause loss of life, injury, or other health impacts.<sup>9</sup>

- More than 70% of the respondents across all states agreed that the temperature in their respective regions had increased over the past five years. This corroborated the alarming increase in the frequency of droughts in all the three drought-prone districts of Purulia, Morena and Khargone.
- More than 50% of the respondents reported that extreme events like floods, cyclones and erosions had become more hazardous and frequent in the last 10 years. Respondents from South 24 Parganas in West Bengal could recall many experiences of significant flooding and cyclone events in the last 10 years.
- Almost all the respondents in South 24 Parganas feared the desilting of the earthen embankments which was a common phenomenon in the district.
- In the flood-prone study zones, a majority of the respondents noted a substantial increase in the occurrence of floods and cyclones in the last 10 years. They feared that during monsoons, heavy rains could flood the villages near the banks of the river. This prevented stable settlement of families close to the river/sea.
- Landslides were identified as one of the most common disasters in Uttarkashi, Uttarakhand, as communities believed that the frequency of landslides had increased in the last 10 years.

## Exposure – children will bear the brunt of climate change

Climate change, including climate variability and extreme weather events, disproportionately affects marginalised sections of the population – those in rural areas, the poor, disabled, children, women and the elderly. It poses a significant threat to children's health because children have unique metabolism, behaviour, physiology and development characteristics. Children are also more vulnerable to vector-borne diseases than adults.

- The number of children per household averaged around three across all the study locations. All districts except Uttarkashi had more girls per household.

## Vulnerability – risks faced by households and children due to climate change

Vulnerability encompasses a variety of concepts and elements, including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.<sup>10</sup>

### Sensitivity

- There were a considerable number of households in which either parent or both parents had migrated for better livelihood opportunities. During climate-related disasters, female heads of households often found it more difficult to recover economically due to sector-specific employment, lower wages and family responsibilities. Further, the absence of a primary caregiver due to outdoor/income-generating activities adversely affected children's education, health and food security, thereby increasing the sensitivity of households towards climate change adversities.
- The low income of households was directly correlated with low food and nutrition intake. Respondents in Khargone, Morena and Purulia reported that all the members in the household were able to afford only one meal per day or even less than that at times.
- Issues related to food and nutrition insecurity were more prominent in landless households since they largely depended on casual labour work in which remuneration is highly irregular.
- Child labour was observed in households in Madhya Pradesh and West Bengal where the family head was less educated.
- It was observed that a child's right to development was hindered by losing out on school days due to extreme climate events. In many cases, children were not engaged in work outside their homes and were instead working at home.
- In most of the surveyed areas, a single cropping pattern is prevalent, supported by seasonal vegetable production in a few pockets. The loss of productivity amounted to at least a 20–30% decrease in the last few years.
- Farmers tended to improve their productivity with increased use of artificial irrigation, fertilisers and pesticides. The increased use of such products was found to affect soil fertility in the long term and led to the use of higher amounts of fertilisers every year. This correspondingly put pressure on the limited groundwater reserves, leading to further degradation of the environment.

<sup>9</sup> IPCC, 2014: Annex II: Glossary [Mach, K.J., S. Planton and C. von Stechow (eds.)]. In: *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report*

<sup>10</sup> IPCC, 2014: Annex II: Glossary [Mach, K.J., S. Planton and C. von Stechow (eds.)]. In: *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report*

### Adaptive capacity

- Alternative livelihoods or measures such as mixed farming, climate-tolerant crops and crop diversification were rarely taken up. Rather, migration seemed an easy and viable option to many.
- Access to health services was also observed as an issue due to poor connectivity of many interior villages. These villages still suffer from last-mile connectivity problems. In a few cases, ambulance services were provided to pregnant women or seriously ill patients; however, the provision of such services became more challenging during extreme climate events.
- Institutional support from local government offices was provided in the form of mini kits of seeds, fertilisers, pesticides, and disaster relief and response took the form of distribution of relief materials (food, medicine and garments).
- In flood-prone Haridwar, schools were asked to prepare a school safety plan, as per the guidelines issued by the disaster management office. However, the infrastructure of schools in this region was a serious issue as the number of students enrolled in each school was very high due to children and their families shifting from the nearby hills to Haridwar.
- Non-governmental organisations (NGOs) were present in very few pockets. They gave training to farmers on cultivating drought-resistant agricultural crops and extended support in times of crisis.

### Risk/impact – increasing influence on livelihood, health and children

- Damaged infrastructure was a common impact across the states. Floods and extreme rainfall, coupled with instances of cloudbursts, were reported to be the major causes for the damage.
- More than half the houses in the study areas were observed to be kutcha houses. This situation was worse in West Bengal, where more than 90% of the houses were kutcha. As a result, there was considerable fear among the families and they are forced to relocate to safer places every monsoon. Additionally, short-term relocation occurred once in a while and children's school activities were consequently hampered. Children also got injured while traversing in difficult terrain.
- Illegal extraction of groundwater through dug wells for agricultural purposes is common despite restrictions by the Government.

- A negative impact of climate change on economic security was reported across all the states surveyed.
- Water quality was at risk in all three states, with the increased concentration of chemical (iron, fluoride, nitrates, etc.) impurities. Microbial contamination also possibly increased after a climate-related disaster.
- After extreme events, diarrhoeal illnesses related to contaminants in drinking water and sanitation can take more lives than the initial disaster. More than half of the respondents in Haridwar said that the health of their children had been affected by waterborne diseases in the aftermath of a climate-related disaster. Around 39% of the respondents in Uttarakhand said that their child had been admitted to the hospital in the aftermath of a climate-related disaster.

Limited livelihood opportunities, poor socio-economic and institutional resilience, and increasing biophysical vulnerabilities were the key causes for the overall increased risk of the districts. These districts have maximum vulnerabilities/risks and have the potential to be adversely affected by climate change; thus, focused adaptation measures are immediately needed. The lowest-risk households are mostly well-connected to cities/towns, which results in greater advantages in terms of livelihood opportunities and access to frontline services.



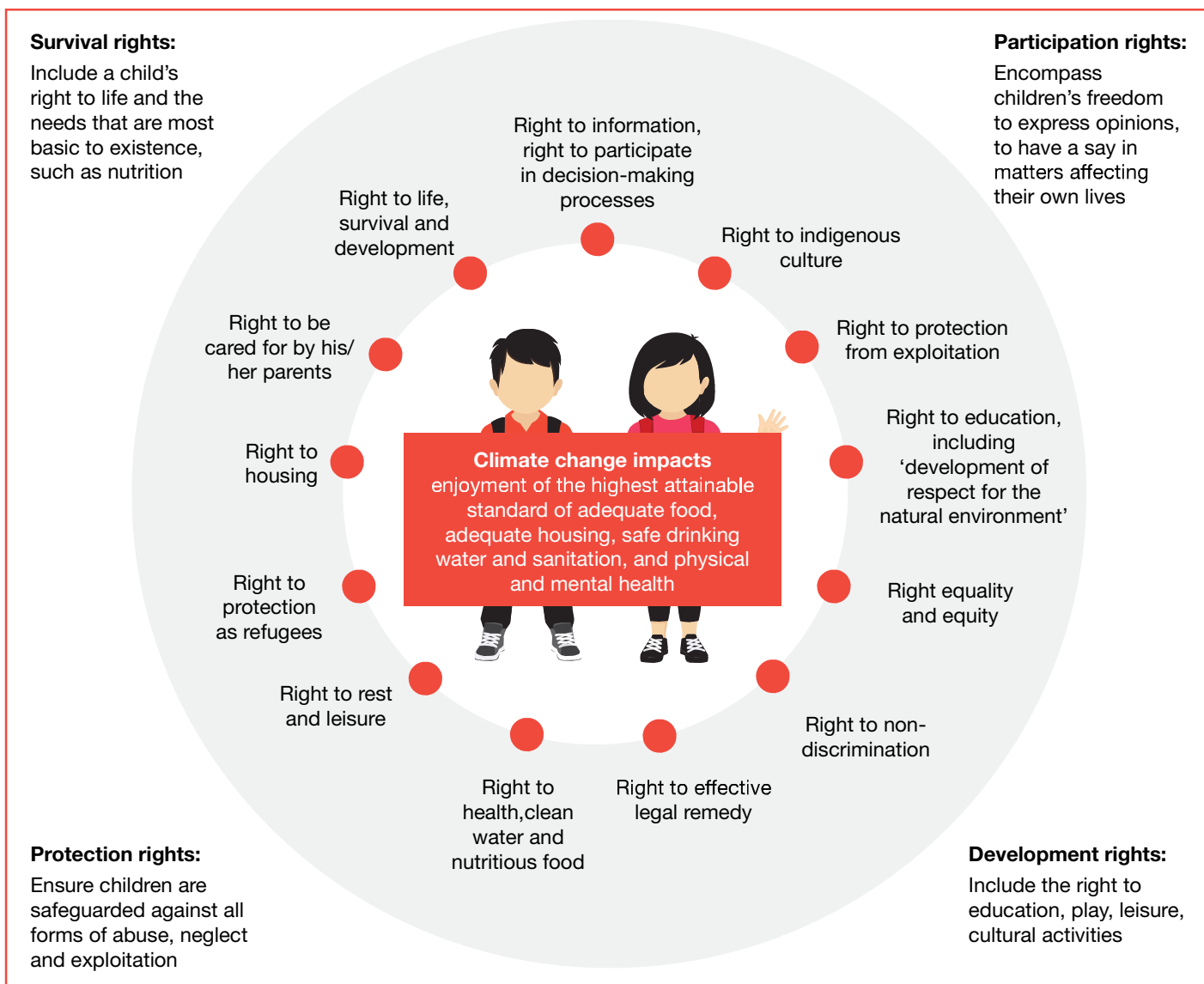
## Climate change and child rights

Climate change impacts the key articles related to the rights to survival, protection, development and participation of the UNCRC directly or indirectly, ranging from the right to non-discrimination to the right to a voice and from the right to protection as refugees to the right to protection from exploitation. Most importantly, climate change affects the enjoyment of adequate food and nutrition, adequate housing, safe drinking water and sanitation, physical and mental

health, and access to education. Based on the findings from the analysis using the IPCC's AR5 framework and UNCRC, a framework on the best interests of the child in the context of climate change was constructed to establish the impact of climate change on children. The best interests of the child framework summarises the key children's interests as per the four themes of the UNCRC that are impacted by climate change (Figure C).

**Figure C: Best interests of the child in the context of climate change**

Child rights potentially impacted by climate change



Source: Save the Children analysis

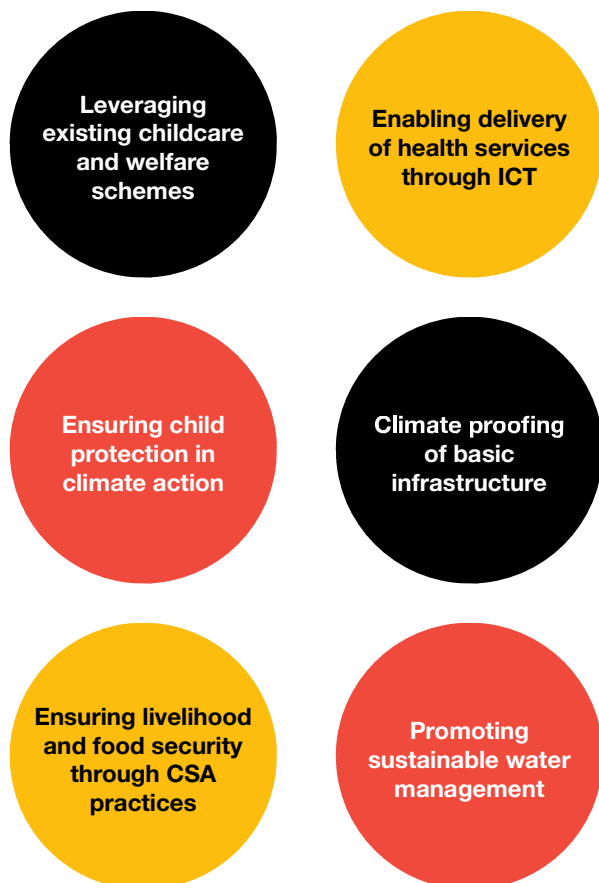
## Summary of recommendations – roadmap to climate resilience

Based on the understanding of climate change impacts, vulnerability of children to climate change and their adaptation needs, recommendations for climate resilience are identified as part of the study. The recommendations cover specific measures to a) build resilience through adaptive strategies b) mainstream climate change through transformative strategies. Further, a few generic strategies that will reduce socio-economic vulnerability of the communities across regions are proposed.

### Building resilience through adaptive strategies

Adaptive strategies focus on making intentional incremental adjustments in anticipation of or in response to changes to create more flexibility in the future. Based on the findings of the survey, six adaptation strategies are proposed:

Figure D: List of strategies proposed



### Leveraging existing childcare and welfare schemes

Reducing the socio-economic vulnerability of children is critical to enhancing their resilience to climate change. Hence, interventions to ensure basic needs such as water, sanitation, food and nutrition, access to education, healthcare, and social security measures, as well as child-centric disaster preparedness, response and recovery need to be undertaken. These include:

- strengthening the implementation of existing childcare and welfare schemes
- leveraging child frontline workers towards building climate resilience of children
- child-sensitive alignment of national policies and strategies and plans for disasters and resilience.

### Enabling delivery of health services through ICT

During climate-related disasters or extreme weather events, health infrastructure or basic infrastructure such as roads and bridges, which are critical to access health infrastructure, facilities or emergency support, are often severely damaged. As a result, access to healthcare services and infrastructure is a common concern among the communities in the surveyed regions. Moreover, there are regions which face other issues related to accessing healthcare services. To address these problems, information and communication technology (ICT) enabled delivery of health services such as mHealth has been proposed as an adaptation strategy.

### Ensuring child protection in disaster-prone areas

Regions such as South 24 Parganas and Uttarkashi are prone to extreme weather events, and children are extremely vulnerable and require special care and support in overcoming the impact and associated trauma. The National Disaster Management Plan (NDMP) lays down several child-centric measures towards the well-being of children, including setting up of child protection units as per the Integrated Child Protection Scheme (ICPS), India. Based on this context, the setting up of child-centric relief and rehabilitation spaces has been proposed as an adaptation strategy to specifically address the issues faced by children in the project regions due to the impact of climate change. The key measures can be as follows:

- establishing and managing child-friendly spaces (CFSs)
- children's collectives to work with children to understand their vulnerabilities and develop informed solutions.

## Climate proofing of basic infrastructure

In all the three states surveyed for the study, damage to basic infrastructure due to floods, landslides, storms or cyclones was common. Such disasters led to property damage and even loss of life due to accidents in some cases. They also hindered movement during emergency situations. Climate-resilient infrastructure reduces the risk of climate-related disruptions by improving the ability of the infrastructural assets to cope with the impact of such disruptions.

Some of the key measures to implement this strategy are:

- developing guidelines for climate- and disaster-resilient infrastructure
- climate proofing of critical infrastructure to climate variability and extreme events in the present and future
- development of real-time monitoring and early warning system for landslides in Uttarakhand.

## Ensuring livelihood and food security through climate-smart agriculture (CSA) practices and alternative livelihoods

Diversification of livelihoods beyond agriculture, allied activities and other climate-sensitive occupations at the household and the community level is an important way to reduce climate change risks. Non-climate sensitive work such as crop processing, livestock production, wage labour, salaried work, business activities, land rental and remittances at the household level is an important way to reduce livelihood risks. Ensuring availability and accessibility of agriculture, horticulture and veterinary services to all people is also critical. Livelihood and food security can be ensured by:

- engaging farmers in capacity-building programmes for climate-sensitive agriculture and alternative livelihoods
- providing effective tools and creating an enabling environment for practising climate-sensitive agriculture.

## Promoting sustainable water management

Water quality and quantity were identified as issues in all the three regions studied. Water resources, already under pressure due to the growing water demand vis-à-vis finite supply, will be under even greater pressure in the future as a result of climate change. This is a result of (but not limited to) three factors – the projected decrease in rainfall and erratic rainfall patterns, decreased availability resulting from over extraction, and the combined effect on the overall ecosystem. The study showed that the different regions face different water-related problems and their adaptation needs accordingly vary. This is due to the very large temporal and spatial variation of rainfall

in India. Hence, adaptation planning based on the geography and demography is critical. Keeping in mind all these factors, specific adaptation measures are proposed for the project regions:

- developing water security plans (WSPs) at the community level in semi-arid regions of Madhya Pradesh and Uttarakhand
- constructing/renovating water harvesting, conservation and ground recharge structures.
- promoting efficient use of water for household and agricultural purposes
- implementing subsurface water technologies to avoid saltwater intrusion in South 24 Parganas.

## Mainstreaming climate change through transformative strategies

Transformative adaptation planning should result in the development of a portfolio of climate change adaptation opportunities that can be mainstreamed in the policies, plans and programmes of the country. This is crucial to ensure the best use of investment needs, given the limited resources available and competing needs. The framework for mainstreaming child-related climate change considerations should be built on the following eight pillars.

### Multidimensional resilience

Adaptation strategies have the potential to generate economic, social and environmental benefits. Investment decisions should consider direct and indirect benefits and multisectoral implications while evaluating the suitability of adaptation strategies. This will help in considering climate risks while designing large-scale or small-scale programmes.

### Participatory and decentralised planning

Ensuring inclusivity and equitable access to all stakeholders should be the underlying principle of climate change adaptation in India. The key to addressing this aspect is ensuring participatory planning and continuous dialogue between communities, policymakers and implementing agencies.

### Collaborative climate action ecosystem

A multitude of actors play critical roles in climate action and child development in India. It is important that the framework identifies the current and potential roles of these actors in climate action and leverages the synergies for greater impact. An integrated approach based on interdisciplinary and multisectoral thinking needs to be promoted.

## **Convergence with existing policies and actions**

The National Rural Employment Guarantee Act (MGNREGA), 2005, National Health Mission (NHM), National Social Assistance Programme (NSAP), Pradhan Mantri Fasal Bima Yojana (PMFBY), etc., are some of the key policies and schemes implemented in India with a focus on socio-economic development. Additionally, there are a few initiatives focusing on children such as the Midday Meal Scheme (MDMS), Integrated Child Development Scheme (ICDS) and Sarva Shiksha Abhiyan (SSA). Convergence or integration with existing government policies and actions will help in optimising efforts and synergising the different policies/actions and sectors by converging funds, institutional technical expertise, social mobilisation or other aspects related to planning and implementation.

## **Pooling of funds**

Budgetary outlays are often insufficient for effective climate interventions. Therefore, there is a need to identify and leverage different funding sources.

## **Sustainable interventions and last mile delivery**

Adaptation interventions are not one-time investments and often involve recurring costs. Sustainability of interventions and last-mile delivery will reduce the risk of investments that may otherwise hinder private sector participation.

## **Private sector participation**

The private sector can be a key player in addressing the adaptation finance gap. In addition to contributing financially, the private sector can provide technical expertise, management experience and professionalism, thereby bringing in efficiency in the system.

## **Development and use of decision support tools for adaptation planning**

The availability of authentic secondary data has been a bottleneck for the current study. There is a need for a proper geo-referenced database for researchers to carry out extensive climate-vulnerability assessments so that policymakers can take informed decisions based on such assessments. A geographical information system (GIS) based decision support system (DSS) may be deployed to fill this gap.

In addition to specific adaptation strategies, a few generic strategies may be implemented across geographical areas for communities affected by climate change.

## **Ensuring access to education**

Providing financial assistance to children in families affected by climate risks and skills training opportunities to the youth and adolescents, especially women and girls, and establishing vocational educational training institutes at block or panchayat levels would provide access to education and enhance employability of those affected by climate change.

## **Ensuring livelihood security and social protection**

Basic livelihood services at the community level, formal and informal gender-sensitive social protection and safety net programmes and financial inclusion are important to absorb the effects of climate change on livelihoods. Efforts should be undertaken to provide last-mile service delivery.

## **Building knowledge and awareness of climate change and its impact**

There is a need to undertake awareness-generation initiatives for all key stakeholders – policymakers, government institutions (especially local government bodies), civil society and community organisations, NGOs, etc. – regarding climate change, its impact on communities and implications for children. Customised activities should be designed and undertaken for building awareness and sensitisation among each of the key stakeholders. Formation of eco/nature clubs could be helpful in imparting knowledge and awareness to children. Disaster and climate risk education may be integrated into the formal curriculums of educational institutes.

To conclude, adaptation strategies for climate change should ensure the rights of children – survival rights, development rights, protection rights and participation rights, as enshrined in the UNCRC. Planning and implementation for adaptation should follow a multipronged approach that is contextual to communities and geographies based on identified climate risks and impact and therefore, must be more localised than centrally driven. Further, the development process should be long term and stakeholder driven rather than isolated from the local context and needs. Implementation of such strategic interventions will help India achieve the commitments made to children under the Constitution as well as under the UNCRC.



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# About Save the Children, India

Save the Children, India is one of the world's leading independent organisations for children. Bal Raksha Bharat, the Indian member of the Save the Children alliance was set up in 2008, since then we have had a lasting impact on the lives of over 11 million children in India.

In a world where millions of children are denied their rights because of who they are or where they live, we aim to put the most deprived and marginalised children first, and to tackle the barriers to survival, learning and protection.



# pwc.in

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