



# Climate Landscape Analysis for Children in the Philippines





# **Climate Landscape Analysis for Children in the Philippines**

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# Contents

<b>Foreword by the UNICEF Representative in the Philippines .....</b>	<b>iv</b>
<b>Acknowledgements .....</b>	<b>v</b>
<b>Acronyms .....</b>	<b>vi</b>
<b>Key Findings .....</b>	<b>1</b>
<b>1. Methodology.....</b>	<b>5</b>
<b>2. The climate, environment and energy and situation in the Philippines.....</b>	<b>7</b>
2.1 Country context .....	8
2.2 Increased temperatures and drought.....	11
2.3 Sea level rise and extreme sea levels.....	13
2.4 Extreme precipitation .....	15
2.5 Extreme wind and tropical cyclones.....	19
2.6 Multi-hazard exposure and provincial risk clusters .....	21
2.7 Environment .....	23
2.8 Energy.....	26
<b>3. The impact of climate, environment and energy issues on children .....</b>	<b>27</b>
3.1 Health.....	28
3.2 Nutrition .....	34
3.3 Water, sanitation and hygiene (WASH).....	39
3.4 Education.....	45
3.5 Social protection .....	51
3.6 Child protection .....	56
3.7 Cross-cutting issues: Gender and adolescent development and participation .....	61
3.8 Disability .....	62
3.9 The children's climate risk index.....	64
<b>4. Government action on climate, environment and DRR issues .....</b>	<b>66</b>
4.1 National climate, environment and disaster risk reduction policies and strategies.....	68
4.2 Sectoral policies, strategies and plans and their focus on climate and children .....	74
4.3 BARM policy framework for climate, disasters and children .....	83

**5. Opportunities and recommendations for child-responsive climate and disaster resilience .....84**

5.1 Climate-resilient social services for children ..... 86

5.2 Climate policy and plans ..... 92

5.3 Generating evidence for better climate action ..... 96

5.4 UNICEF actions..... 98

**References ..... 100**

**Annex A. Climate, environment and DRR and child and youth policies and strategies.... 108**

**Annex B. Sectoral initiatives related to climate and children..... 114**

**List of tables**

Table 1. The Philippines climate risk profile data.....9

Table 2. Characterization of the Philippines' climate zones ..... 15

Table 3. Child health vulnerability indicators and data sources ..... 31

Table 4. Child nutrition vulnerability indicators and data sources..... 37

Table 5. WASH vulnerability indicators and data sources ..... 42

Table 6. Education vulnerability indicators and data sources..... 48

Table 7. Poverty indicators and data sources..... 54

Table 8. Child protection vulnerability indicators and data sources..... 59

Table 9. Summary of child-focused social sectors in the National Adaptation Plan (2023-2030)..... 69

Table 10. NDCs for Every Child assessment of the Philippine NDCs ..... 71

Table 11. Overview of health-, climate- and DRR-related policies and initiatives..... 74

Table 12. Overview of nutrition-, climate- and DRR-related policies and initiatives ..... 76

Table 13. Overview of WASH-, climate- and DRR-related policies and initiatives ..... 77

Table 14. Overview of education-, climate- and DRR-related policies and initiatives..... 79

Table 15. Overview social policy, climate- and DRR-related policies and initiatives ..... 81

Table 16. Overview child protection related policies and initiatives and focus on climate, environment, DRR and children ..... 82

Table 17. Child-focused adaptation and mitigation priorities by sector..... 82

Table 18. Opportunities to strengthen climate and disaster policies and planning in child-focused social sectors ..... 94

Table 19. Overview of national policies, strategies and plans related to climate, environment, energy (CEE) and children..... 108

Table 20. Overview of education related policies and initiatives and focus on climate, environment and DRR and children ..... 114

Table 21. Overview of health-related policies and initiatives and focus on climate, environment and DRR and children ..... 117

Table 22. Overview of nutrition-related policies and initiatives and focus on climate, environment and DRR children ..... 120

Table 23. Overview of WASH related policies and initiatives) and focus on climate, environment and DRR and children ..... 121

Table 24. Overview social policy-related policies and initiatives and focus on climate, environment and DRR and children .....	125
Table 25. Overview child protection related policies and initiatives and focus on climate, environment and DRR and children .....	127
Table 26. Overview of climate finance related frameworks, guidelines and initiatives.....	128
Table 27. Overview of energy related initiatives.....	129
Table 28. Overview of other climate and children related initiatives.....	129

## List of Figures

Figure 1. Provincial ranking based on children’s climate risk index .....	2
Figure 2. Projected provincial risk categorization between 2030-2040, SSP5-8.5.....	22
Figure 3. A lake with polluted water in a nickel mine .....	24
Figure 4. Child health vulnerability index by province .....	30
Figure 5. Child nutrition vulnerability index by province.....	36
Figure 6. WASH vulnerability index by province.....	42
Figure 7. WRI Water Risk Tool Stress Index - left to right - current, pessimistic, optimistic scenarios .....	43
Figure 8. Education vulnerability index by province.....	47
Figure 9. Poverty index by province.....	53
Figure 10. Child protection vulnerability index by province .....	58
Figure 11. Children’s climate risk index.....	65

## Foreword by the UNICEF Representative in the Philippines



Climate change is changing the way children grow, play, learn and develop across the Philippines. As this Climate Landscape Analysis for Children reveals, children are on the frontlines of a rapidly changing environment, facing more frequent and severe typhoons, sea level rise, extreme heat and slow erosion of natural resources that sustain their communities. These threats are not abstract or distant; they are daily realities that make nutritious food more costly, render children unable to concentrate on their lessons at school and expose them to more risks as they flee to evacuation centres.

While this report paints a picture of the situation of the climate-changed child in the Philippines, we remember the individual stories of children and families who live with this new reality. Jessica and her son Angelo from Oas, Albay, are among of the 15 million people in the Philippines who endured six record-breaking storms within 25 days in 2024. Jessica and her entire family live beside a creek where the threat of flooding is ever-present. Kaye, a seven-year-old from Camaligan, Camarines Sur, needed to swim to safety to escape the floodwaters from Typhoon Kristine.

This report is a call to put children at the heart of climate action. By listening to children, we can understand their unique vulnerabilities, and empower them to build a more resilient, inclusive, and sustainable future. Children are not simply inheritors of our inaction. They are living the consequences every day. They are active agents of change. They are solutions-oriented and actively contribute to disaster preparedness, response, and recovery, as well as to many aspects of climate action.

The Government of the Philippines has shown global leadership in advancing climate action and disaster risk reduction, with a robust National Adaptation Plan (2023-2050) that includes many actions to strengthen the resilience of services that children rely on. This report provides additional recommendations to climate-proof policies and social services, and lift children's voices at every level of decision-making. Now is the time to accelerate progress, close gaps and ensure that we leave no one behind.

UNICEF Philippines is working to ensure that these services not only withstand shocks and stresses, but also low-carbon, green, sustainable, and includes everyone. Through thoughtful planning and design of social services, we can help mothers like Jessica, and children like Angelo and Kaye cope with climate impacts and recover more quickly. By creating transformative change at scale, every child can survive, grow, and thrive in a liveable planet.

**Kyungsun Kim**

UNICEF Representative, Philippines

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National Youth Commission (NYC)  
Philippine Commission on Women (PCW)  
Philippine Institute for Development Studies  
Technical Education and Skills Development Authority (TESDA)

# Acronyms

<b>ASRSP</b>	adaptive shock responsive social protection
<b>BARMM</b>	Bangsamoro Autonomous Region in Muslim Mindanao
<b>CCA</b>	climate change adaptation
<b>CCC</b>	Climate Change Commission
<b>CCET</b>	Climate Change Expenditure Tagging
<b>CCRI</b>	Children’s Climate Risk Index
<b>CDC</b>	child development centre
<b>CEPC</b>	Comprehensive Emergency Program for Children
<b>CER</b>	Climate, Environment, and Resilience
<b>CLAC</b>	Climate Landscape Analysis for Children
<b>DBM</b>	Department of Budget and Management
<b>DENR</b>	Department of Environment and Natural Resources
<b>DEPDev</b>	Department of Economic Planning and Development
<b>DepEd</b>	Department of Education
<b>DILG</b>	Department of the Interior and Local Government
<b>DOF</b>	Department of Finance
<b>DOH</b>	Department of Health
<b>DOLE</b>	Department of Labor and Employment
<b>DPWH</b>	Department of Public Works and Highways
<b>DRM</b>	disaster risk management
<b>DRR</b>	disaster risk reduction
<b>DRRM</b>	disaster risk reduction and management
<b>DSWD</b>	Department of Social Welfare and Development
<b>ECCD</b>	Early Childhood Care and Development
<b>ECT</b>	emergency cash transfer
<b>ENSO</b>	El Niño–Southern Oscillation
<b>GDP</b>	gross domestic product
<b>GHG</b>	greenhouse gas
<b>GIDA</b>	geographically isolated and disadvantaged areas
<b>IPRR</b>	Investment Portfolio for Risk Resilience
<b>IWRM</b>	integrated water resources management
<b>IWRMP</b>	Integrated Water Resources Management Plan
<b>LCCAP</b>	local climate change action plan
<b>LGBTQIA</b>	lesbian, gay, bisexual, transgender, queer, intersex, asexual
<b>LGU</b>	local government unit
<b>MIMAROPA</b>	Mindoro (Occidental and Oriental), Marinduque, Romblon, and Palawan
<b>MNCH</b>	maternal, newborn and child health
<b>NAP</b>	National Adaptation Plan
<b>NCCAP</b>	National Climate Change Action Plan
<b>NCR</b>	National Capital Region
<b>NDC</b>	nationally determined contributions
<b>NDCIP</b>	Nationally Determined Contributions Implementing Plan
<b>NDRRMC</b>	National Disaster Risk Reduction and Management Council
<b>NEHAP</b>	National Environmental Health Action Plan

<b>NGA</b>	national government agency
<b>NPAC</b>	National Plan of Action for Children
<b>PAGASA</b>	Philippine Atmospheric, Geophysical and Astronomical Services Administration
<b>PHP</b>	Philippine Peso
<b>PM</b>	particulate matter
<b>PPAN</b>	Philippine Plan of Action for Nutrition
<b>PSA</b>	Philippine Statistics Authority
<b>PSF</b>	People's Survival Fund
<b>PWSSMP</b>	Philippine Water Supply and Sanitation Master Plan
<b>PYDP</b>	Philippine Youth Development Plan
<b>RCP</b>	representative concentration pathway
<b>SLR</b>	sea level rise
<b>SSP</b>	shared socioeconomic pathway
<b>TESDA</b>	Technical Education and Skills Development Authority
<b>TWG</b>	technical working group
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>UNICEF</b>	United Nations Children's Fund
<b>WASH</b>	water, sanitation and hygiene
<b>YES-O</b>	Youth for Environment in Schools Organization

# Key findings



Climate change is not a distant threat. It is a daily reality for millions of children in the Philippines. Frequent climate-induced disasters are compounded by slow-onset crises—rising sea levels, water scarcity and environmental degradation—that erode livelihoods, displace families and deepen poverty and inequality. By 2050, nearly all children in the Philippines will experience at least five heatwaves annually, with three-quarters enduring prolonged periods of extreme heat. Deforestation, pollution and unregulated mining worsen these impacts, particularly through floods and landslides. Air pollution causes thousands of avoidable deaths while unequal energy access and coal dependence compound vulnerabilities. By 2030, climate change is projected to impact 7.6 per cent of the country's total gross domestic product (GDP), amounting to PHP1.4 trillion, and rising to 13.6 per cent by 2040.<sup>1</sup>

## Children bearing the brunt

Children in the Philippines are on the frontline of the climate crisis. The Philippines ranks among the top nations globally for climate vulnerability, with children bearing the brunt of intensifying typhoons, floods, droughts, sea level rise and extreme heat. According to the UNICEF Children's Climate Risk Index (CCRI), the Philippines scores 8.9 out of 10 for exposure—the sixth highest globally—and 7.1 overall, placing it among the world's highest-risk countries for children. Over 97 per cent of children in the country are exposed to three or more climate-related shocks—some of the world's highest risks from climate change. These hazards threaten not only their survival but also their rights to health, education, water, sanitation, protection and a safe environment.

Within the Philippines, UNICEF used a similar CCRI methodology to identify the provinces most at-risk based on hazard exposure and social and infrastructure vulnerabilities. Hazard data from internationally recognized data sets and climate projections was used to estimate future risks under different scenarios (see Section 2). UNICEF also assessed vulnerabilities across sectors critical to children's well-being, including health, nutrition, education, WASH, poverty and child protection (see Section 3). The final output is a national CCRI for the Philippines, showing the provinces with the highest hazard risk and social vulnerability (details in Section 3.9):

- Palawan, MIMAROPA
- Camarines Norte, Bicol
- Camarines Sur, Bicol
- Quezon, CALABARZON
- Maguindanao del Sur, BARMM
- Maguindanao del Norte, BARMM
- Special Geographic Areas (SGA), BARMM
- Sulu, Zamboanga Peninsula

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<sup>1</sup> World Bank. 2022. *Philippines Country Climate and Development Report*. <https://www.worldbank.org/en/country/philippines/publication/philippines-country-climate-and-development-report>



## Surviving and thriving in a climate-changed world

Climate change is eroding progress towards fulfilling child rights:

- **Education:** Climate shocks disrupt schooling, with thousands of schools closing due to typhoons, floods and extreme heat. Vulnerable children, especially in rural, coastal and indigenous communities, face the greatest barriers to learning continuity during remote learning.
- **Health:** Rising temperatures, pollution and extreme weather drive increases in respiratory diseases, heat-related illnesses and mental health challenges. Outbreaks of dengue, leptospirosis and waterborne diseases are becoming more frequent.
- **Nutrition:** Typhoons, droughts and floods devastate crops and fisheries, pushing more children into hunger and malnutrition, and pushing them towards ultraprocessed unhealthy foods. Disasters disrupt feeding programmes and food supply chains, especially for the poorest.
- **Water, sanitation and hygiene (WASH):** Damaged infrastructure and contaminated water sources increase the risk of waterborne diseases. With less than half of the population with access to safe drinking water in 2024, climate change is further eroding progress towards universal access.
- **Child protection:** Climate change increases exposure to violence, harmful coping mechanisms like child labour and child marriage, and displacement. Children on the move face heightened risks of exploitation and abuse.
- **Poverty and inequality:** Climate shocks deepen poverty and widen inequalities, undermining children's development and opportunities. Social protection systems are increasingly strained by the frequency and severity of disasters.

The impacts are most severe for the most vulnerable: children with disabilities, girls, those in indigenous and rural areas, and children living in poverty. Climate change disrupts education, undermines health and nutrition, contaminates water sources and increases exposure to violence, exploitation and displacement. It threatens the realization of child rights and the future of an entire generation.

## A liveable planet for every child

Adaptation is urgently needed in the social services that children rely on for their survival and development. The Philippines has established a comprehensive framework of national policies, strategies, and plans for climate, environment, and disaster risk reduction (DRR), increasingly recognizing children's unique vulnerabilities. However, implementation gaps persist, and child rights are not yet fully integrated or prioritized in climate action. While the Philippine National Adaptation Plan (NAP) includes many key social services, sectoral policies mostly focus on DRR and emergency response, without comprehensively addressing adaptation needs for children.

Financing for child-focused resilience and adaptation remains limited and heavily donor-dependent. This echoes global findings that just 2.4 per cent of climate finance from multilateral climate funds supporting the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement can be classified as supporting projects incorporating child-responsive activities.<sup>2</sup>

Children are not systematically included in climate decision-making. Their voices, experiences and solutions are too often overlooked. Yet, children and youth are not just victims: they are powerful agents of change. Their participation must be institutionalized and mainstreamed in climate, environment and DRR action at all levels.

Now is the time for urgent, coordinated, and inclusive action:

- Through the NAP localization process, led by the Climate Change Commission (CCC) and Department of Environment and Natural Resources (DENR), invest in climate-proofing social services— health, nutrition, education, WASH, child protection and social protection—to ensure children’s survival and development.
- Strengthen policy linkages between climate and social sectors and institutionalize collaboration across government agencies.
- Generate and use disaggregated data to better understand and address the impacts of climate change on children, especially the most marginalized.
- Institutionalize child and youth participation in climate policy, planning and implementation at all levels.
- Mobilize climate and disaster finance for child-focused resilience, preparedness and long-term adaptation.

Children must be at the heart of climate action in the Philippines. Their rights, needs and voices must drive the national response to the climate crisis. By investing in child-centred adaptation and resilience, the Philippines can protect its youngest citizens and build a more just, inclusive and sustainable future for all.

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<sup>2</sup> UNICEF. 2023. *Falling short: Addressing the climate finance gap for children*. <https://www.unicef.org/reports/addressing-climate-finance-gap-children>

# 1 Methodology



This CLAC update employed a mixed-methods approach comprising desk research, key informant interviews, questionnaires and consultations with key government partners and other stakeholders. Twenty-four government agencies were consulted by conducting interviews and distributing questionnaires to scope existing policies, programmes, data and initiatives on children and climate. Consultations determined strategic entry points to prioritize the rights of children and youth amid climate change and disasters. Dialogue with sections in the UNICEF Philippines Country Office and field offices informed the CLAC development process.<sup>3</sup>

In developing the CLAC, UNICEF integrated inputs from a national consultation with children and young people on the nationally determined contributions (NDCs) and just transition carried out in July 2025. The consultation brought together over 65 children and youth aged 10 to 24 (32 males and 33 females) from across the country, including representatives from climate-affected communities, youth-led organizations and vulnerable sectors. They identified priorities across social sectors (health, nutrition, education, WASH, child protection and social protection) and mitigation sectors while also reflecting on just transition and the principles of equity, intergenerational justice and community resilience. These perspectives were incorporated into the CLAC inputs per sector, ensuring that children and youth voices meaningfully shape the recommendations.

Prior to finalization, the CLAC was presented at a national consultative workshop on October 7, 2025 with government ministries and key climate, environment and DRR stakeholders to refine results and develop recommendations for integrating child and youth considerations into national climate, environment and DRR priorities. National government agencies (NGAs) and youth representatives through the Kabataang Resilient Network joined the consultation. Their inputs are reflected in this report.

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<sup>3</sup> Namely Education, Health, Social Policy, WASH, Child Protection, Adolescent Development and Participation, Gender, Social and Behaviour Change, Nutrition, Disability, and the Mindanao Field Office.

# 2 The climate, environment and energy and situation in the Philippines



This chapter outlines the country's current context in relation to climate, environment and energy, with emphasis on present and projected climatic conditions. The analysis is structured around the four climate impact drivers identified in the NAP 2025 as most critical to the Philippines' vulnerability. These are increased temperatures and drought, sea level rise and extreme sea levels, extreme precipitation and extreme wind and tropical cyclones. Where available, climate projections are drawn from the SSP2-4.5 - "Middle of the Road" - scenario as well as the SSP5-8.5 - "Worst-Case" - scenario for range and comparison.<sup>4</sup>

## 2.1 Country context



**Geographic and Climate Risk Context** | Situated in the Pacific Ring of Fire and along the Northwest Pacific typhoon belt, the Philippines is acutely exposed to both geophysical and climate-related hazards. Its archipelagic geography—comprising over 7,640 islands and more than 60 per cent of cities located along the coast—places an estimated 5.4 million Filipinos in vulnerable low-lying areas.<sup>5</sup> These coastal zones are increasingly at risk from sea-level rise, storm surges and coastal erosion.

The country consistently ranks among the world's most disaster-prone nations, topping the 2023 World Risk Index with an average of 148 disasters annually, primarily triggered by typhoons, floods, droughts, and earthquakes.<sup>6</sup> On average, 20.2 tropical cyclones enter the Philippine Area of Responsibility (PAR) each year, with 8.4 making landfall,<sup>7</sup> causing widespread damage to lives, homes and livelihoods.

Slower-onset climate risks such as rising temperatures, water scarcity and land degradation also increasingly threaten children's rights, especially amid limited local capacities for environmental safeguarding. Insufficient inclusion of child and adolescent needs in climate planning, low youth participation in decision-making, and constrained local resources further weaken climate resilience.

Vulnerability also varies regionally: Luzon, Visayas and Mindanao experience distinct exposure levels shaped by geography and adaptive capacity. Local disparities in infrastructure and preparedness mean that climate impacts are unevenly distributed, often compounding socioeconomic inequalities.

<sup>4</sup> SSP2-4.5 is often used as a reference case for the continuation of current trends, moderate inequality, medium challenges to mitigation/adaptation.

<sup>5</sup> Department of Environment and Natural Resources and Climate Change Commission. 2023. *Philippine National Adaptation Plan 2023-2050*. Pasig/Quezon City: DENR & CCC. [https://unfccc.int/sites/default/files/resource/NAP\\_Philippines\\_2024.pdf](https://unfccc.int/sites/default/files/resource/NAP_Philippines_2024.pdf).

<sup>6</sup> Ruhr University Bochum, Institute for International Law of Peace and Armed Conflict (IFHV). 2024. *World Risk Report 2024*. Bochum: IFHV. <https://reliefweb.int/report/world/worldriskreport-2024-focus-multiple-crises>.

<sup>7</sup> *Philippine National Adaptation Plan 2023-2050*.

**Table 1. The Philippines climate risk profile data**

Risk	Index Score	Rank
ND Gain Index <sup>8</sup>	<ul style="list-style-type: none"> <li>Score - 44.4 out of 100</li> <li>Vulnerability - 0.444 (0-1)</li> </ul>	Rank 115 out of 185 (moderate overall adaptation capacity)
INFORM Risk <sup>9</sup>	<ul style="list-style-type: none"> <li>Readiness - 0.341 (0-1 scale)</li> <li>Risk class – High</li> <li>Hazard and exposure rank – 7 (very high)</li> <li>Vulnerability rank – 56 (moderately high vulnerability)</li> <li>Lack of coping capacity rank - 112</li> </ul>	Rank – 35 out of 191 (lower rank indicates higher risk)
World Risk Index <sup>10</sup>	<ul style="list-style-type: none"> <li>Score – 46.86 out of 100</li> <li>Exposure – Very High 39.99 (0-100)</li> <li>Vulnerability - Very High 54.92 (0-100)</li> <li>Susceptibility - Very High 51.21 (0-100)</li> <li>Lack of Coping Capacities - Very High 58.84 (0-100)</li> <li>Lack of Adaptive Capacities - High 54.98 (0-100)</li> </ul>	Rank – 1 out of 193 (lower rank indicates higher risk)

**Demographic Profile** | With a population of approximately 113 million as of 2024, the Philippines is one of Southeast Asia's most populous countries.<sup>11</sup> Population growth, while slowing, is projected to bring the national total to 133 million by 2045, further concentrating climate-related vulnerabilities in high-risk regions. Urbanization has accelerated: 41.4 per cent now reside in cities, including 12–13 per cent in Metro Manila alone.<sup>12</sup> The rest of the population remains spread across 1,000+ islands, many in coastal and rural areas that are directly exposed to typhoons and rising seas.

The Philippine Human Development Index is 0.720 (ranked 120 of 192 countries), and average life expectancy stands at 74.4 years.<sup>13</sup> Children constitute a significant portion of the population: 33.4 million are under the age of 15, and 36.5 per cent are under 18 as of 2020.<sup>14</sup> These children face growing risk from the multiple hazards associated with climate change, exacerbating underlying vulnerabilities.

<sup>8</sup> The ND-GAIN Country Index summarizes a country's vulnerability to climate change and other global challenges in combination with its readiness to improve resilience. <https://gain.nd.edu/our-work/country-index/rankings/>

<sup>9</sup> INFORM has three dimensions: hazard and exposure, vulnerability and lack of coping capacity. Each dimension encompasses different categories, which are user-driven concepts related to the needs of humanitarian and resilience actors. <https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Risk/Country-Risk-Profile>

<sup>10</sup> The World Risk Index is based on the interaction between the spheres of exposure and Vulnerability. In turn, vulnerability is composed of susceptibility, lack of coping capacities, and lack of adaptive capacities. <https://repository.gheli.harvard.edu/repository/10930/>

<sup>11</sup> 2020 Census of Population and Housing (2020 CPH): Population Counts Declared Official by the President. Manila: PSA, September 7. <https://psa.gov.ph/content/2020-census-population-and-housing-2020-cph-population-counts-declared-official-president>.

<sup>12</sup> Ibid.

<sup>13</sup> Philippine Statistics Authority.

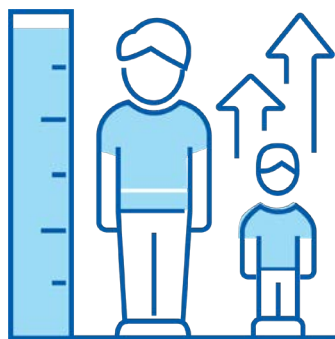
<sup>14</sup> 2020 CPH.

**Socioeconomic Conditions and Climate Exposure** | Despite steady economic gains, the Philippines faces persistent socioeconomic vulnerabilities that intensify climate risks. The national economy is projected to grow at 5.9 per cent from 2024 to 2026, and services currently contribute 63 per cent of GDP, followed by industry (28 per cent) and agriculture (9 per cent). However, agriculture, forestry, and fishing still employ over one-third of the workforce,<sup>15</sup> making livelihoods heavily dependent on climate-sensitive resources.

Poverty and inequality remain pronounced: as of 2023, 15.5 per cent of the total population—or around 17.54 million Filipinos live below the national poverty line.<sup>16</sup> Inequality is geographically entrenched; regions like the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), Visayas and parts of Mindanao exhibit higher poverty and weaker infrastructure resilience.

Low-income families, both in fast-urbanizing cities and in rural areas, often reside in precarious conditions. Many urban poor live in informal settlements lacking durable housing and reliable services, while rural communities depend on subsistence farming and fishing with minimal protective buffers. Such groups have limited capacity to adapt when faced with extreme weather events or longer-term climate stressors.

Children and women are disproportionately at risk. Chronic malnutrition (stunting) affects 23.6 per cent of children in the Philippines under five years of age,<sup>17</sup> making them more vulnerable to food insecurity and disease during climate shocks. These pressures compound children's vulnerability to illness, displacement, school interruption and long-term developmental risks.



**23.6%**  
**of Filipino children  
under 5 years old are  
affected by stunting**

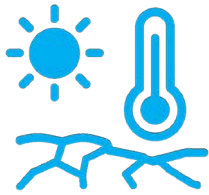
Migration into high-risk areas—including floodplains, unstable hillsides and congested coastal settlements—continues due to limited livelihood alternatives and land scarcity. As climate change accelerates, these overlapping vulnerabilities are projected to widen unless inclusive and child-sensitive adaptation strategies are prioritized.

<sup>15</sup> Philippine Statistics Authority, July 17, 2025 <https://psa.gov.ph/statistics/national-accounts/sector/Services>

<sup>16</sup> Philippine Statistics Authority. 2023. 2023 *Full Year Poverty* (Document (A4)).

<sup>17</sup> Based on 2023 National Nutrition Survey, stunting affects 23.6% of children under 5 years old and 20.7% of adolescents (10-19 years old)

## 2.2 Increased temperatures and drought



The Philippines experiences a relatively stable climate with an average annual temperature of 25.8°C, and seasonal variations of around 3°C—the hottest months being March to May, and the coolest December to February.<sup>18</sup> Temperature varies spatially based on altitude, with higher elevations being cooler.<sup>19</sup> Over the past 70 years, the country has experienced a 0.75°C increase in mean temperature,<sup>20</sup> accompanied by a rise in the number of hot days and a reduction in cold nights.<sup>21</sup> These changes have been particularly noticeable in the northern and southern regions of the country.<sup>22</sup>

Looking ahead, temperature increases are expected under all emissions scenarios, with the Intergovernmental Panel on Climate Change ‘worst-case’ pathway (SSP5-8.5) indicating the most dramatic impacts. Nationwide average temperature is projected to increase by approximately 0.8°C (SSP2-4.5) to 0.9°C (SSP5-8.5) by 2030, and between 1.5°C (SSP2-4.5) to 1.7°C (SSP5-8.5) by 2050.<sup>23</sup> Increases in temperature are projected to increase extreme heat and exacerbate droughts.

### Heatwaves

**Historical trends:** Heatwaves have been relatively infrequent in the Philippines due to the country's stable tropical climate. The national median probability of a heatwave event, defined as three or more consecutive days exceeding the 95<sup>th</sup> percentile of daily mean temperature, has been estimated at just 2 per cent. Nonetheless, the Philippines regularly experiences high baseline temperatures, with monthly maximums averaging 30°C, and peaks reaching 32°C in May. In 2020, 18 million children (40 per cent of children in the country) were living in areas where historical heatwave events, defined as three consecutive days above the 90<sup>th</sup> percentile of the climatological average, have occurred.<sup>25</sup>

Heatwave patterns historically correlate with coastal lowland areas, where humidity and exposure amplify thermal discomfort. In contrast, elevated inland regions, such as the central highlands of Luzon, Visayas and Mindanao, have experienced fewer and shorter heatwave episodes. Still, even during the historical baseline period (circa 2020), isolated hotspots of extreme heat were already present in densely populated coastal and urban areas.

<sup>18</sup> *Philippine National Adaptation Plan 2023–2050*.

<sup>19</sup> Villarín, J. R. T., R. T. Perez, F. A. T. Cruz, L. M. P. Olaguera, M. Q. Villafuerte II, W. A. Agustin, F. B. Avila, J. Q. Basconillo, D. M. Calde, J. M. B. Dado, G. A. M. Duran, M. L. D. Jamero, J. C. A. Lambrento, A. M. T. Magnaye, J. A. Manalo, and L. V. Tibig. 2024. *2024 Philippine Climate Change Assessment: The Physical Science Basis*. Manila: Oscar M. Lopez Center for Climate Change Adaptation and Disaster Risk Management Foundation, Inc.

<sup>20</sup> *Philippine National Adaptation Plan 2023–2050*.

<sup>21</sup> World Bank. 2021. *Climate Risk Country Profile: The Philippines*. Washington, DC: World Bank.

<sup>22</sup> United States Agency for International Development (USAID). 2017. *Climate Change Risk Profile: The Philippines*. Washington, DC: USAID.

<sup>23</sup> *Philippine National Adaptation Plan 2023–2050*.

<sup>24</sup> *Climate Risk Country Profile: The Philippines*.

<sup>25</sup> Seureca-Cibola Partners and INSUCO. 2025. *Children's Climate Risk Assessment: Philippines*.

**Projections:** Across all emissions scenarios, the Philippines is projected to experience substantial increases in the frequency, duration and spatial extent of heatwaves. High-heat days (heat index >35 °C) could increase more than tenfold under pessimistic scenarios, reaching up to 200 days annually in some areas by mid-century.<sup>26</sup> By 2050, nearly all children in the Philippines are expected to face at least five heatwaves annually, with three-quarters experiencing extended durations.<sup>27</sup>

Unproductive days (heat index >42 °C) currently average 28 per year (2010–2020) but are projected to rise to 64 by the 2030s and 133 by the 2050s under SSP2-4.5. The economic implications are severe: labour productivity losses could reach PHP465 billion in 2030 (≈3 per cent of GDP) and escalate to PHP640 billion by 2050, with agriculture, construction and outdoor informal sectors most affected.<sup>28</sup> Heatwaves disproportionately affect coastal areas, with individual events typically lasting fewer than 10 days.<sup>29</sup> The most vulnerable regions include Caraga (Region XIII, Mindanao), the Cordillera Administrative Region, and the National Capital Region (NCR). Mindanao is projected to see the sharpest temperature increase and the highest incidence of unproductive days, with potential for near year-round heatwaves by 2050.<sup>30</sup>

These stresses are amplified in urban areas by the urban heat island effect, where built environments trap and radiate heat, raising temperatures by 0.1–3 °C above surrounding rural zones.<sup>31,32</sup> In Metro Manila, the urban heat island effect can elevate nighttime temperatures by up to 3 °C, compounding health risks and straining cooling infrastructure and public health systems.<sup>33</sup>

## Droughts

**Historical trends:** Droughts are less frequent than other climate hazards in the Philippines—only 10 of over 680 recorded disasters have been drought-related.<sup>34,35</sup> Still, nearly 17 per cent of children (or 7.6 million children) live in areas where climatological drought was highest in 2020.<sup>36</sup> Droughts reduce water availability for agriculture, increasing crop water demand and leading to pest outbreaks, wildfires and declining watershed inflows. These conditions jeopardize water supplies for agriculture (82 per cent of national withdrawals), industry (10 per cent), and municipal use (8 per cent), disrupting rural livelihoods and food security.<sup>37</sup>

Two main types of droughts affect the Philippines: meteorological drought, resulting from low precipitation and hydrological drought, which arises from declining surface and groundwater flows, often from stress in the country's major river basins. The current median annual probability of experiencing a severe meteorological drought is estimated at around 3 per cent, though this varies significantly from year to year.<sup>38,39</sup>

<sup>26</sup> Ibid.

<sup>27</sup> *Philippine National Adaptation Plan 2023–2050*.

<sup>28</sup> Ibid.

<sup>29</sup> EM-DAT, CRED. 2023. "Custom Request." UCLouvain, Brussels. [www.emdat.be](http://www.emdat.be).

<sup>30</sup> *Climate Risk Country Profile: The Philippines*.

<sup>31</sup> Ibid.

<sup>32</sup> Tiangco, M., Lagmay, A. M. F., & Argete, J. 2008. ASTER-based study of the night-time urban heat island effect in Metro Manila. *International Journal of Remote Sensing*, 29(10), 2799–2818. URL: <https://doi.org/10.1080/01431160701408360>

<sup>33</sup> *Climate Risk Country Profile: The Philippines*.

<sup>34</sup> "Custom Request."

<sup>35</sup> *Philippine National Adaptation Plan 2023–2050*.

<sup>36</sup> *Children's Climate Risk Assessment for the Philippines*.

<sup>37</sup> *Climate Change Risk Profile: The Philippines*.

<sup>38</sup> Defined by a Standardized Precipitation Evaporation Index (SPEI) value below -2

<sup>39</sup> *Climate Risk Country Profile: The Philippines*.

**Projections:** Climate projections suggest minimal change in the overall probability of severe drought in the Philippines by the 2090s under most warming scenarios. However, intense El Niño episodes are likely to remain key triggers of future droughts, while non-El Niño droughts, such as the 2007 event during a La Niña year, may become more common due to changing atmospheric dynamics. World Bank projections indicate that drought frequency and duration in the Philippines will remain relatively stable across climate scenarios, allowing future adaptation efforts to draw confidently from experience.<sup>40</sup> Although Southeast Asia is expected to experience less dramatic increases in drought intensity than other regions (e.g., West and Central Asia), future droughts may become more damaging due to their effects on agricultural productivity, water supply and hydropower generation, potentially contributing to energy shortfalls and food insecurity.

## 2.3 Sea level rise and extreme sea levels



The Philippines has a vast coastline and numerous low-lying areas, making it vulnerable to sea level rise (SLR) and extreme sea levels, which can result in coastal erosion.

### Sea level rise

**Historical trends:** SLR is a slow-onset but compounding hazard, intensifying the impacts of extreme events such as storm surges and coastal flooding.<sup>41</sup> In the Philippines, SLR has historically been recorded at rates double the global average, ranging from 2.8 to 3.6 millimetres (mm)/year (1993–2010). In Manila Bay, land subsidence from groundwater overextraction has pushed the apparent SLR rate as high as 15 mm/year (1960–2012)—nine times the global average.<sup>42</sup> Similar patterns are observed in Cebu, Davao, Iloilo and Legazpi, as well as in eastern Leyte, Samar and parts of Central Visayas and eastern Mindanao, where local rates reach 4.5–5 mm/year.<sup>43</sup>

SLR is already contributing to coastal erosion, saline intrusion, mangrove loss, coral bleaching and flooding, affecting critical infrastructure and livelihoods.<sup>44</sup> With 60 per cent of the population residing in coastal areas, the threat is far-reaching. Salinization of water sources is impairing agriculture, fisheries, and domestic water supply,<sup>45</sup> while four Philippine cities are ranked among the top 10 Southeast most at risk from combined SLR and storm surges.<sup>46</sup>

<sup>40</sup> "Custom request."

<sup>41</sup> *Climate Risk Country Profile: The Philippines*.

<sup>42</sup> *Ibid.*

<sup>43</sup> Villarín, J. R., et al. *Philippine Climate Change Assessment: The Physical Science Basis*.

<sup>44</sup> Government of the Philippines. 2014. Second National Communication.

<sup>45</sup> *Climate Change Risk Profile: The Philippines*.

<sup>46</sup> Second National Communication.



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**Projections:** SLR in the Philippines is projected to continue to accelerate beyond the global average, reaching up to 8.9 mm/year by 2050 under SSP5-8.5. This equates to a total rise of 0.25 m by 2030 and 0.5 m by 2050, twice the projected global mean under the same time frame.<sup>47</sup> By 2060, the national rate may double again. Provinces along the West Philippine Sea, particularly in northern Luzon, are expected to face rates 1.5 times the national average.<sup>48</sup> Modelling of storm surge indicates that the severity is expected to intensify due to a combination of rising sea levels, more intense typhoons and land subsidence, exacerbating flood risks in vulnerable coastal zones.<sup>49</sup>

Extreme sea level events—caused by storm surges, tides and wave action—are expected to intensify by up to 35 per cent by 2030, reaching heights of up to 3 metres, or 12 times the baseline SLR projection. This could impact up to 2 million people and generate infrastructure losses of PHP80–88 billion by 2050. The most exposed regions include Bicol, Cagayan Valley and Eastern Visayas, with growing risks in NCR and Mindoro (Occidental and Oriental) Marinduque, Romblon, and Palawan (MIMAROPA) through mid-century.<sup>50</sup>

Permanent inundation is also a concern: by 2050, up to 423,000 people may face displacement due to SLR, with PHP41 billion in potential losses.<sup>51</sup> Regional hotspots include Central Luzon, CALABARZON, Ilocos and Bicol, which are expected to bear most of the impacts.

<sup>47</sup> *Philippine National Adaptation Plan 2023–2050.*

<sup>48</sup> *Ibid.*

<sup>49</sup> *Children's Climate Risk Assessment: Philippines.*

<sup>50</sup> *Philippine National Adaptation Plan 2023–2050.*

<sup>51</sup> *Ibid.*

## 2.4 Extreme precipitation



Rainfall in the Philippines varies greatly by region and season. Annual rainfall ranges from 960 mm in southeast Mindanao to 4,050 mm in Central Luzon.<sup>52</sup> Precipitation patterns are shaped by four climate zones and driven by the southwest (May–September) and northeast (November–February) monsoons, the Intertropical Convergence Zone, tropical cyclones, and El Niño–Southern Oscillation (ENSO) phenomena (El Niño and La Niña).

**Table 2. Characterization of the Philippines' climate zones**

Climate zone	Characterization
Climate Type I	Defined by two pronounced seasons, a wet season from May to October, and a dry season from November to April, and is strongly influenced by the summer monsoon.
Climate Type II	Presents a pronounced peak in rainfall from November to December without a defined dry season and is influenced by the winter monsoon.
Climate Type III	No pronounced seasonal cycle but has relatively high rainfall from May to October, similar to Type I.
Climate Type IV	Rainfall distributed throughout the year.

During the southwest monsoon, northwestern areas (Climate Type I) receive up to 90 per cent of annual rainfall, while other zones average around 43 per cent. The northeast monsoon brings cooler air and increases precipitation over eastern regions.<sup>53</sup> On average, 20 tropical cyclones enter the PAR annually, primarily in July, October, and November, bringing increased rainfall.

ENSO cycles further modulate rainfall. El Niño typically leads to dry periods, especially late in the year, while La Niña brings higher precipitation. Early onset El Niño events (July–September) may still coincide with high rainfall due to overlapping monsoon activity.<sup>54</sup> Despite established seasonal patterns, uncertainties remain regarding the long-term interaction between ENSO variability and climate change, warranting further research.<sup>55</sup>

Rainfall is projected to become more erratic and intense under the SSP2-4.5 and SSP5-8.5 scenarios.<sup>56</sup> There is medium confidence in a future rise in both frequency and intensity of extreme rainfall events.<sup>57</sup> Seasonal patterns will shift notably. Rainfall is expected to intensify during the northeast monsoon (December–February) in Eastern Visayas and southeastern Luzon, while the dry season (March–May) is projected to become drier in northern and western regions.<sup>58</sup> The frequency of wet days with precipitation may increase, alongside more dry days (<2.5 mm), particularly south of 15°N latitude.<sup>59</sup> These trends pose critical challenges for agriculture, water resource management and urban planning, given the reliance on predictable seasonal precipitation.

<sup>52</sup> *Climate Risk Country Profile: The Philippines.*

<sup>53</sup> Villarín, J. R., et al. *Philippine Climate Change Assessment: The Physical Science Basis.*

<sup>54</sup> Ibid.

<sup>55</sup> Di Liberto, T. 2021. ENSO and Climate Change: What does the new IPCC report say? Climate.gov.

<sup>56</sup> *Philippine National Adaptation Plan 2023–2050.*

<sup>57</sup> GFDL. 2020. ThinkThreat! - The Philippines.

<sup>58</sup> *Philippine National Adaptation Plan 2023–2050.*

<sup>59</sup> PCCA (Philippine Climate Change Assessment). 2024; Villarín, J. R. T., et al. *Philippine Climate Change Assessment: The Physical Science Basis.*



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**BULA, PHILIPPINES - OCTOBER 30, 2024:** Bula Central School in Bula, Camarines Sur, Philippines, remain flooded a week after Tropical Storm Trami brought heavy rains and strong winds to much of the country.

Over 100 individuals are reportedly dead according to government reports. Over half a million individuals were forced to flee their homes due to the floods caused by the heavy rain.

## Floods

Flood impacts are severe and multidimensional: they cause loss of life, displacement, health impacts, damage to crops and soils, and destruction of critical infrastructure, including roads, homes, schools, health facilities and WASH systems.

**Historical trends:** Flooding is one of the most frequent and damaging natural hazards in the Philippines, commonly occurring in areas with high precipitation and typhoon activity. Floods develop after sustained rainfall (typically 12–24 hours), while urban flash floods can occur within just a few hours.<sup>60</sup> Over recent decades, the intensity and frequency of flood events appear to be increasing,<sup>61</sup> driven by stronger typhoons, more intense rainfall and degraded watersheds due to deforestation, poor land-use planning, and urban sprawl.<sup>62</sup>

<sup>60</sup> National Center for Atmospheric Research (NCAR) and United Nations Development Programme (UNDP). 2000. *Reducing the Impacts of Environmental Emergencies: The Case of the 1997-1998 El Niño Southern Oscillation. The Philippine Study - Final Report.*

<sup>61</sup> Acosta, L., Eugenio, Macandog, P.B.M., Magcale-Macandog, D. et al. 2016. Loss and damage from typhoon-induced floods and landslides in the Philippines: Community Perceptions on climate impacts and adaptation options. *International Journal of Global Warming*. 9. 33–65. URL: <https://www.inderscienceonline.com/doi/abs/10.1504/IJGW.2016.074307>

<sup>62</sup> Mag-aso, J.R., Ancog, R.C., Pacardo, E.P., Rapera, C.L. 2018. Estimation of Economic Costs of Flood Impacts of Typhoon “Crisis” in Kabacan, North Cotabato, Philippines. *International Journal of Agricultural Economics*, 3(2): 31–36. URL: <http://www.sciencepublishinggroup.com/journal/paperinfo?journalid=232&doi=10.11648/j.ijae.20180302.12>

Geographically, the most flood-prone provinces are in Luzon—including Pampanga, Nueva Ecija, Pangasinan, Tarlac, Bulacan, Ilocos Norte and Metro Manila—but recurrent flooding also affects parts of Mindoro, Maguindanao and North Cotabato. Coastal and estuarine flooding is often exacerbated by monsoonal winds and typhoon surges in provinces like Batangas and Palawan. More than 10 per cent of barangays in the country are classified as vulnerable to coastal or river flooding.<sup>63</sup>

**Projections:** Climate change is expected to increase flood risks in the Philippines through more intense and erratic rainfall, particularly during the wet season. While projections remain uncertain, models suggest higher water levels, larger flooded areas, and longer flood durations in many regions.<sup>64</sup> Extreme river floods are expected to become more frequent and severe, turning rare 1-in-100-year events into 1-in-25-year occurrences across much of the country.<sup>65</sup>

By 2030, up to 4.8 million people may be exposed to pluvial flooding (due to heavy rainfall), with an additional 250,000 people at risk of fluvial flooding (from overflowing rivers), especially in eastern regions.

- Pluvial flooding (heavy rainfall): Under SSP2-4.5, up to 5 million people could be affected by mid-century, with economic losses of approximately PHP273 billion. Higher-end projections under SSP5-8.5 suggest even greater exposure, with CALABARZON and Central Luzon particularly impacted (up to 880,000 and 520,000 people, respectively).<sup>66</sup>
- Fluvial flooding (river overflow): Persistent risks are projected for Mindanao under SSP2-4.5, with additional vulnerabilities emerging in Eastern and Central Visayas and the Zamboanga Peninsula. More severe outcomes under SSP5-8.5 indicate flood-depth increases of 30–68 per cent and infrastructure damage exceeding PHP110 billion in the hardest-hit regions.<sup>67</sup>

The economic cost of such events is estimated at PHP273 billion for pluvial and PHP13 billion for fluvial flooding.<sup>68</sup> Vulnerability is compounded by social inequality—18 per cent of those exposed belong to lower-income groups,<sup>69</sup> many of whom lack the resources to prepare for or recover from such impacts.

<sup>63</sup> *Philippine National Adaptation Plan 2023–2050*.

<sup>64</sup> *Ibid.*

<sup>65</sup> *Climate Risk Country Profile: The Philippines*.

<sup>66</sup> *Philippine National Adaptation Plan 2023–2050*.

<sup>67</sup> *Ibid.*

<sup>68</sup> *Ibid.*

<sup>69</sup> *Ibid.*



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## Landslides

More than two-thirds of reported landslides occur between August and January, peaking in September and November, in close association with intense rainfall and typhoons.<sup>70</sup> Landslides frequently coincide with flooding, amplifying their destructive impact. High-risk areas include mountainous and hilly regions throughout the country, with notable hotspots in Mountain Province, Benguet, Apayao, Nueva Vizcaya, and Southern Leyte.<sup>71</sup> Impacts are often severe, involving loss of life, displacement, damage to homes and infrastructure, and destruction of cropland.

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<sup>70</sup> "Custom Request."

<sup>71</sup> Soriano, Valmoría and Villacrusis. 2021. Top 5 Landslide Prone Areas in the Philippines. Environmental Remote Sensing & Geo-Information Laboratory. <https://ersg.uplb.edu.ph/student-projects/top-5-landslide-prone-areas-in-the-philippines/#:~:text=The%20purpose%20of%20this%20study,Nueva%20Vizcaya%2C%20and%20Southern%20Leyte>

**Historical trends:** Landslides are a frequent hazard in the Philippines, driven by abundant rainfall, steep terrain and seismic activity. Over the past two decades, the frequency of major events has increased, with strong incidents occurring at least once every two years, and often twice annually. This trend is exacerbated by urban expansion, deforestation, and loss of natural land cover.<sup>72</sup>

**Projections:** Rain-induced landslides are expected to become more frequent and intense,<sup>73</sup> driven by increasing rainfall variability, especially under typhoon conditions. Even in areas where total precipitation may decline, higher rainfall concentration is likely to trigger slope failures. Ongoing seismic activity and continued land-use change (e.g., road cuts, settlement expansion) are projected to further elevate landslide risks. According to the NAP, approximately 2 million people may be exposed to at least one significant rain-induced landslide event per decade. Provinces with the highest projected susceptibility include Benguet (30 per cent), La Union (21 per cent), and Ilocos Sur (18 per cent), all facing elevated risks within a 10-year return period.

## 2.5 Extreme wind and tropical cyclones



Winds are shaped by seasonal monsoons and typhoons, which generate some of the most destructive wind speeds. The central and eastern Philippines are the most exposed to high wind speeds, with several regions facing regular impacts from intense tropical cyclones. Eastern Visayas, Central Visayas, and CALABARZON lie along traditional typhoon tracks and are consistently exposed to high-intensity winds including those associated with super typhoons. The central Philippines faces the annual risk of at least one Category 3 typhoon based on the Saffir-Simpson scale. Northern Luzon, including Cagayan Valley and the Ilocos Region, while not historically among the most affected, is now experiencing increasing wind intensity.<sup>74</sup> Vulnerability to high wind speeds varies geographically.<sup>75</sup>

<sup>72</sup> Japan International Cooperation Agency. 2015. *Country Report: Philippines. Natural Disaster Risk Assessment and Area Business Continuity Plan Formulation for Industrial Agglomerated Areas in the ASEAN Region*. Tokyo: JICA.

<sup>73</sup> Cruz R, Aliño P, Cabrera O, David, C, David L, Lansigan F, Lasco R, Licuanan W, Lorenzo F, Mamaug S, Peñaflor E, Perez R, Pulhin J, Rollon, R, Samson M, Siringan F, Tibig L, Uy N, Villanoy C. 2017. *2017 Philippine Climate Change Assessment: Impacts, Vulnerabilities and Adaptation*. The Oscar M. Lopez Center for Climate Change Adaptation and Disaster Risk Management Foundation, Inc. and Climate Change Commission

<sup>74</sup> *Children's Climate Risk Assessment: Philippines*.

<sup>75</sup> Ibid.



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Rupaída, 12, lost her home when Typhoon Odette hit the Badjao indigenous community in Surigao City. The typhoon destroyed their house that used to stand by the sea and the community school that provided a safe space for her and other children to study. “The school was a big help to me. I went there every day to answer my modules,” said Rupaída.

## Typhoons<sup>76</sup>

**Historical trends:** The Philippines lies within the Western Pacific typhoon belt, the most cyclone-prone region on earth. As mentioned, an average of 19–20 tropical cyclones enter the PAR annually, with 7–9 making landfall.<sup>77</sup> In 2020, nearly 17 million children or over 37 per cent of all children in the country were at risk of high wind speed from typhoons. Typhoons account for over 50 per cent of all natural disasters recorded in the country and are responsible for a disproportionate share of damage, displacement and loss of life.<sup>78</sup>

Typhoons contribute approximately 40 per cent of the country’s annual rainfall<sup>79</sup> and trigger flooding, landslides and erosion, with severe consequences for agriculture and soil fertility, especially during La Niña years.<sup>80</sup> Over the past five decades, typhoons have caused 34,000 fatalities, 75,000 injuries, and resulted in billions in economic losses. In the 2020 season alone, damages in agriculture and infrastructure exceeded PHP 44 billion.<sup>81</sup> On average, the Philippines incurs PHP 177 billion in annual losses to public and private assets from typhoons and earthquakes combined.<sup>82</sup>

<sup>76</sup> In the West Pacific region “tropical cyclones” are referred to as “typhoons” and this is the term used in this report.

<sup>77</sup> *Climate Change Risk Profile: The Philippines.*

<sup>78</sup> “Custom Request.”

<sup>79</sup> *Climate Risk Country Profile: The Philippines.*

<sup>80</sup> *Climate Change Risk Profile: The Philippines.*

<sup>81</sup> *Philippine National Adaptation Plan 2023–2050.*

<sup>82</sup> *Climate Risk Country Profile: The Philippines.*

**Projections:** Under climate change scenarios, typhoons may become slightly less frequent but more intense.<sup>83</sup> Average maximum wind speeds from typhoons may increase by 26 per cent (SSP2-4.5) to 29 per cent (SSP5-8.5) by 2030 (from 113 kilometers per hour (km/h) to 142 or 146 km/h), and 29 per cent to 33 per cent by 2050 (up to 146 or 150 km/h). According to IPCC assessments, the proportion of storms reaching Category 4 or 5 could rise by 1–10 per cent under 2°C of warming.<sup>84</sup> These trends will have severe impacts on children. By 2030 and 2050, about 6 million people are projected to be exposed to more than one typhoon or super typhoon with winds exceeding 118 km/h. Infrastructure damages could reach PHP56 billion in 2030 and PHP73 billion in 2050 [SSP2-4.5], with Luzon regions—particularly CALABARZON, Central Luzon and NCR—bearing the brunt. These areas could account for 57 per cent of total infrastructure losses and host 47 per cent of the exposed population within 100 km of the storm path [SSP 5-8.5].<sup>85</sup>

## 2.6 Multi-hazard exposure and provincial risk clusters



To prioritize adaptation efforts in a context of finite resources and diverse vulnerabilities, the Philippine NAP developed a Multi-Hazard Exposure Index that categorizes provinces based on their relative exposure to key climate impact drivers: sea level rise and extreme sea levels, increased temperature and drought, extreme precipitation, sea level rise and extreme sea levels, and extreme winds and tropical cyclones.<sup>86</sup> Provinces are grouped into five exposure levels.<sup>87</sup>

High-exposure provinces are concentrated in coastal and typhoon-prone regions across Luzon, Visayas and parts of Mindanao, such as Cagayan, Eastern Samar, Iloilo, Pampanga and Zamboanga del Sur. These areas are at highest risk due to the compounding effects of multiple hazards, including sea-level rise, flooding, extreme rainfall and typhoons. Medium-High exposure provinces, including Aklan, Batangas, Isabela, Palawan and Misamis Oriental, also face significant risks and should be closely monitored for targeted adaptation planning. Medium exposure provinces, such as Laguna, Basilan, Rizal and Zamboanga del Norte, tend to experience more moderate hazard interactions, while still facing challenges such as flash floods and heat stress. Provinces classified as 'medium-low' or 'low' exposure, including Benguet, Abra, and Batanes, are often in higher elevation areas or less exposed to combined coastal and climatic threats. However, localized hazards like landslides or droughts may still pose considerable risks.<sup>88</sup>

This categorization offers a strategic lens for identifying where climate adaptation investments are most urgently needed. It supports evidence-based prioritization, particularly when combined with local vulnerability and adaptive capacity data. To enhance its utility, future updates should include more granular, downscaled assessments at municipal or community levels to complement provincial analyses.

<sup>83</sup> Ibid.

<sup>84</sup> *Philippine National Adaptation Plan 2023–2050*.

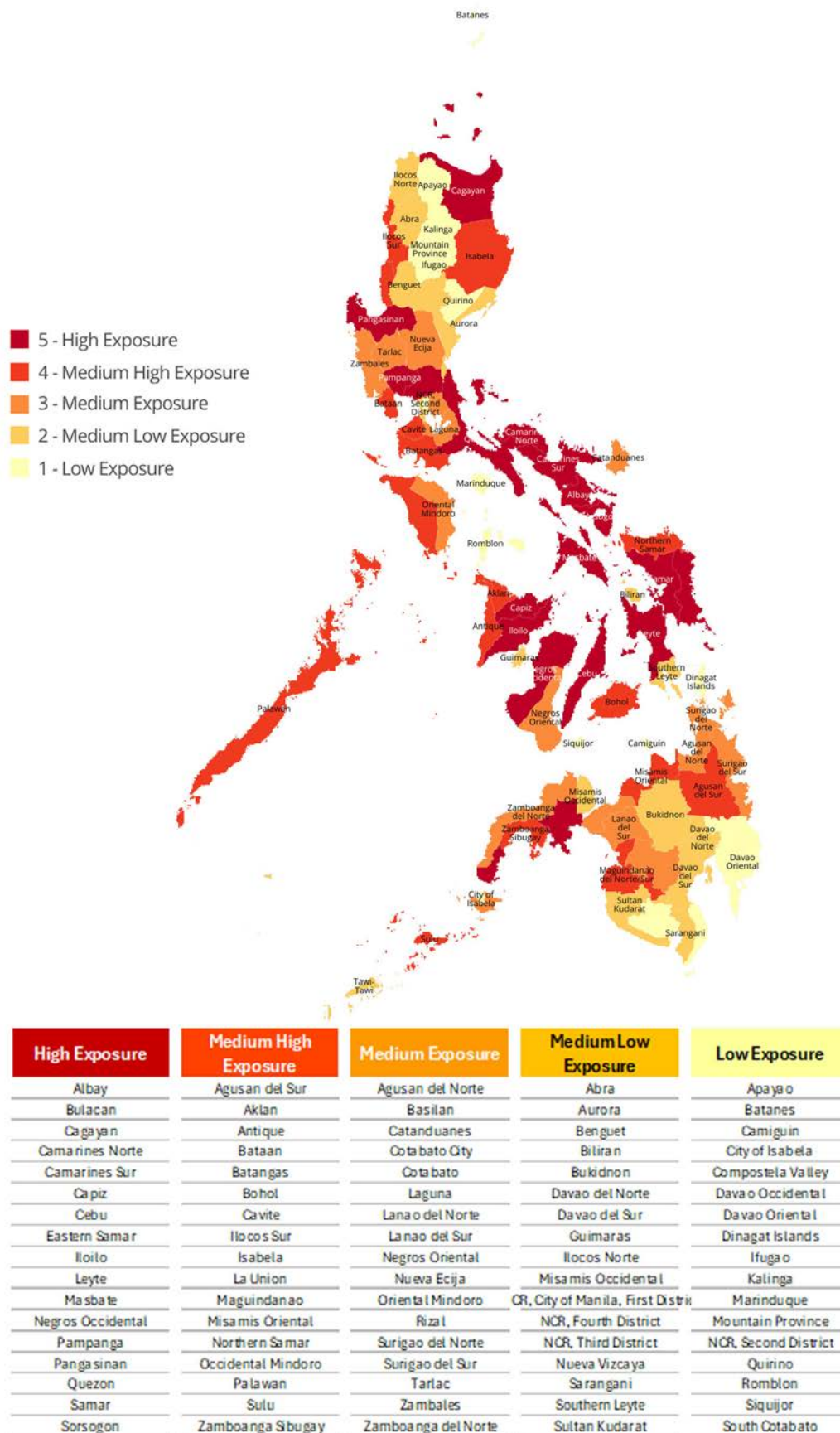
<sup>85</sup> Ibid.

<sup>86</sup> Ibid.

<sup>87</sup> The Multi-Hazard Exposure Index was developed by assigning weights to each hazard and calculating an aggregate exposure score based on three dimensions: (i) Physical exposure (e.g., area exposed, flood depth, rate of sea-level rise); (ii) Social exposure (e.g., total and poor population exposed); and (iii) Economic exposure (e.g., damage as a percentage of regional GDP). Hazards included in the index were: Sea level rise, extreme sea levels, pluvial and fluvial flooding, extreme heat, and extreme wind. Percentile values were used to classify provinces into five categories from Low to High Exposure.

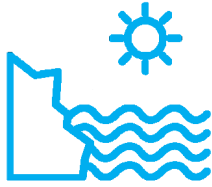
<sup>88</sup> *Philippine National Adaptation Plan 2023–2050*.

**Figure 2. Projected provincial risk categorization between 2030-2040, SSP5-8.5**



Source: Government of the Philippines (2023)

## 2.7 Environment



The Philippines has one of the world's longest coastlines, longer than 36,000 kilometers (km). The Philippines is one of 18 mega-biodiverse countries of the world, containing two-thirds of the earth's biodiversity and between 70 per cent and 80 per cent of the world's plant and animal species.<sup>89</sup> Its varied ecosystems—from ridge to reef—support a wide range of plant and animal species, many of which are endemic and highly endangered, with at least 700 threatened species. Located in the Ring of Fire, the Philippines is susceptible to geological hazards that include almost daily seismic events that often cause landslides. Geography plays also an important role in this susceptibility: most islands present a diverse topography, consisting of high mountains, narrow valleys and plains. Uncontrolled deforestation (especially in watershed areas), mining, and pollution of air and water and the marine environment are the most widespread forms of environmental degradation in the Philippines.

### Air pollution

Air pollution is the biggest environmental risk factor to human health in the Philippines.<sup>90</sup> The Philippines' annual mean value for fine particulate matter (PM2.5) is 24 µg/m<sup>3</sup>, five times the World Health Organization (WHO) guideline value. The health implications are profound. In 2019, around 21,700 avoidable deaths in the Philippines were attributable to PM2.5 exposure.<sup>91</sup> Thirty-two per cent of deaths from stroke and ischaemic heart disease are caused by air pollution.<sup>92</sup> Vehicular emissions contribute the most to overall outdoor pollutions, particular in urban centres.<sup>93</sup> While, insufficient ventilation is a major source of indoor air pollution, in the Philippines, 53 per cent of the population live without clean cook fuel or technologies and cook over open fires.<sup>94</sup>

<sup>89</sup> Convention on Biological Diversity. Accessed 29 April 2025 at: <https://www.cbd.int/countries/profile?country=ph>

<sup>90</sup> Institute for health metrics and evaluation. Accessed on 29 April 2025 at <https://www.healthdata.org/research-analysis/health-by-location/profiles/philippines>

<sup>91</sup> Ibid.

<sup>92</sup> World Health Organization (WHO). 2022. Health and Environment Scorecard: Philippines. Manila: WHO Country Office. [https://cdn.who.int/media/docs/default-source/country-profiles/environmental-health/environmental-health-phl-2022.pdf?sfvrsn=120c358f\\_4&download=true](https://cdn.who.int/media/docs/default-source/country-profiles/environmental-health/environmental-health-phl-2022.pdf?sfvrsn=120c358f_4&download=true).

<sup>93</sup> Centre for Research on Energy and Clean Air, 2020. *Air Quality & Health Impacts of Coal-fired Power in the Philippines*. [https://energyandcleanair.org/wp/wp-content/uploads/2021/06/PH-Coal-Health-Report\\_FINAL.pdf](https://energyandcleanair.org/wp/wp-content/uploads/2021/06/PH-Coal-Health-Report_FINAL.pdf).

<sup>94</sup> Health and Environment Scorecard: Philippines.

## Mining

Currently a fifth of Philippines' land mass is covered by mining and exploration permits, many of these areas overlapping with key biodiversity areas, and this figure is set to increase.<sup>95</sup> The Philippines is the second largest producer of nickel and has untapped reserves of copper, chromite, silver and zinc, all used in the green transition for batteries, wind turbines and solar panels.

**Figure 3: A lake with polluted water in a nickel mine**



Source: Global Witness, 2024

Mining causes widespread ecological degradation including deforestation, water pollution and ecosystem destruction. Mining may result in displacement, loss of livelihoods and community disruption. Indigenous peoples have lost around one-fifth of their delineated territories to mining projects over the last 30 years.<sup>96</sup> In Mindanao, for example, gold mining—which often involves the release of highly toxic substances into the air, land and water—has been linked to reduced productivity in agriculture and fishing, increased exposure to skin diseases, and heightened vulnerability to flash floods due to extensive forest and land cover loss.<sup>97</sup>

Lead contamination is a particularly severe legacy of past and ongoing mining practices, especially in poorly regulated and artisanal operations. Despite progress in phasing out lead in gasoline, recent data from the Expanded National Nutrition Survey (2023) indicates that approximately 1.05 million children aged 6–9 years may still have blood lead levels exceeding 3.5 µg/dL—the action threshold set by the United States Centers for Disease Prevention and Control and Prevention.<sup>98</sup> This is 9 in 100 children or a prevalence of 9,000 in 100,000 population. Average blood lead levels were highest in children from parts of Luzon, Visayas and Mindanao. Children's exposure to lead, often through contaminated soil, water or air near mining sites, is associated with irreversible neurological damage, cognitive impairments and long-term developmental consequences.

<sup>95</sup> Global Witness. 2024. *The green transition's dirty footprint*.

<sup>96</sup> Ibid.

<sup>97</sup> ReliefWeb. 2019. Philippines: Extensive logging, unrestricted mining blamed for flooding. 23 January. <http://reliefweb.int/report/philippines/philippines-extensive-logging-unrestricted-mining-blamed-flooding>

<sup>98</sup> The threshold of concern set by WHO is a blood lead level (BLL) of 5 µg/dL

## Deforestation

As of 2020, 45 per cent of land cover in Philippines was natural forests and 17 per cent was non-natural tree cover. From 2001 to 2023, Philippines lost 1.47 million hectares of tree cover, equivalent to a 7.9 per cent decrease in tree cover since 2000, and 835 metric tons of carbon dioxide equivalent (MtCO<sub>2</sub>e) emissions. Palawan had the most tree cover loss at 207 kilohectares compared to an average of 18.1 kilohectares for all regions.<sup>99</sup> The primary causes of forest loss are commercial exploitation and population growth (including lifestyle and consumption patterns) and the introduction of invasive alien species.<sup>100</sup> Deforestation has led to the destabilization of the soil cover, leading to increased susceptibility to landslides, mudslides and erosion.

## Marine environmental degradation

Marine and coastal resources—including coral reefs, mangrove forests and seagrasses—are being degraded and depleted. Major threats to inland water biodiversity, as well as marine and coastal environments, include chemical pollution and eutrophication, fisheries operations, habitat alteration, invasion of alien species and global climate change.<sup>101</sup> Meanwhile, demands on marine resources are increasing as populations and incomes rise, and this is undermining the livelihoods of fisherfolk and other people reliant on the marine economy.<sup>102</sup>

## Water pollution

The country's renewable water resources are abundant, with 4,500 cubic meters (m<sup>3</sup>) per capita and withdrawals of 812 m<sup>3</sup> per capita, strongly concentrated in agriculture (79 per cent) and only 9 per cent being used for urban services.<sup>103</sup> Although the country is rich in water resources, some areas endure scarcity and water stress, especially in Luzon and the Visayas. The Philippines has 421 primary rivers and 221 lakes, which supply 50 per cent of the country's potable water. The remaining 50 per cent comes from groundwater sources. These water resources are critical for the country's drinking water, agriculture and industry. Water pollution in the Philippines is largely caused by inadequately treated domestic wastewater and sewage (48 per cent), agricultural wastewater (37 per cent), and industrial wastewater (15 per cent).<sup>104</sup> Forty-three per cent, or 180 out of 421, rivers are polluted mainly due to untreated domestic sewage and industrial and agricultural wastes. In 2021, 56 per cent (13 of 23) of water bodies classified for public water supply exceeded guideline values for water safety.<sup>105</sup>

<sup>99</sup> Global Forest Watch. 2025. "Global Forest Watch: Philippines Dashboard." Accessed April 29. <https://www.globalforestwatch.org/dashboards/country/PHL/>.

<sup>100</sup> Convention on Biological Diversity. Accessed 29 April 2025 at. <https://www.cbd.int/countries/profile?country=ph>

<sup>101</sup> Ibid.

<sup>102</sup> Department of Environment and Natural Resources, Biodiversity Management Bureau. 2016. *Philippine National Biodiversity Strategy and Action Plan 2016–2028*. Quezon City: DENR-BMB. <https://www.cbd.int/doc/world/ph/ph-nbsap-v3-en.pdf>.

<sup>103</sup> UN Water. Philippines. <https://www.sdg6data.org/en/country-or-area/Philippines>.

<sup>104</sup> Environmental Management Bureau. 2015. *Wastewater Management in the Philippines*. Manila: EMB.

<sup>105</sup> Senate Economic Planning Office. 2023. *The State of Water*. Pasay: SEPO. [https://legacy.senate.gov.ph/publications/SEPO/State%20of%20Water%20AAG\\_August%202023.pdf](https://legacy.senate.gov.ph/publications/SEPO/State%20of%20Water%20AAG_August%202023.pdf).

## Waste management

It is estimated that the country will generate 23.6 million metric tons of waste in 2025. The average collection ratio for municipal solid waste in the Philippines is low, at about 40 per cent, with significant variation across different regions depending on their socioeconomic conditions, for example in Metro Manila the rate is 90-95 per cent compared to 10-15 per cent in remote areas. It is estimated that the Philippines recycles only 28 per cent of its crucial plastic resins.<sup>106</sup> Inadequately managed waste contributes to the contamination of water and soil and leads to air pollution, all impacting child health and development. It can also cause blocked drainage channels leading to standing water and causing mosquito infestations and the spread of vector-borne diseases and flooding. In large urban areas, neglected drainage systems and expansion of informal settlements and damaged watersheds significantly exacerbate flooding and swamping.<sup>107</sup>

## 2.8 Energy



The Philippines' total energy consumption has been rising and in 2022 the country's final energy consumption reached 35.86 million tons of oil equivalent, up 38 per cent compared to 2012. Challenges in reducing countrywide emissions relate to the heavy reliance on non-renewable energy sources and inefficiencies in energy use.<sup>108</sup> The main sources of energy in the Philippines in 2023 are coal (35 per cent), renewable energy (32 per cent), oil (30 per cent) and natural gas (4 per cent). The main renewable energy sources are geothermal (14 per cent) and biomass (12 per cent).<sup>109</sup> In 2023, 93 per cent of households in the Philippines were connected to an electricity supply, with significant regional variations, for example in BARMM only 43 per cent of households are connected to an electricity supply. Indigenous communities often have no access to electricity, even for schools and health facilities.<sup>110</sup>

<sup>106</sup> Department of Environment and Natural Resources. 2024. *Roadmap for the Management of Plastic Waste and Reduction of Non-recyclable Single-Use Plastics in the Philippines*. [https://nswmc.emb.gov.ph/wp-content/uploads/2025/03/240201-PH-Plastic-Roadmap\\_v8-1.pdf](https://nswmc.emb.gov.ph/wp-content/uploads/2025/03/240201-PH-Plastic-Roadmap_v8-1.pdf).

<sup>107</sup> Macaraig, M. 2012. Philippine floods a man-made disaster. *Inquirer*. 9 August. <https://newsinfo.inquirer.net/246867/philippine-floods-a-man-made-disaster-experts>

<sup>108</sup> Energy Tracker Asia. Accessed on 29 April 2025 at [https://energytracker.asia/energy-efficiency-in-the-philippines\\_trashed/](https://energytracker.asia/energy-efficiency-in-the-philippines_trashed/)

<sup>109</sup> Department of Energy. 2023. 2023 Key Energy Statistics. Manila: DOE. [https://legacy.doe.gov.ph/sites/default/files/pdf/energy\\_statistics/2023%20Key%20Energy%20Statistics.pdf](https://legacy.doe.gov.ph/sites/default/files/pdf/energy_statistics/2023%20Key%20Energy%20Statistics.pdf).

<sup>110</sup> UNICEF. 2017. *Climate Landscape Assessment for Children*. New York: UNICEF.



# The impact of climate, environment and energy issues on children

This section summarizes the key impacts of climate, environment and energy issues on the 39.7 million children living<sup>111</sup> in the Philippines. The section is organized around child rights dimensions and cross-cutting issues.

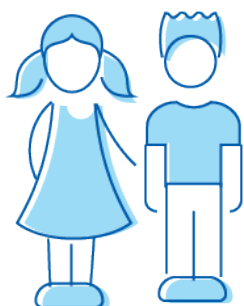
## 3.1 Health

**“ Children and Youth Voices**  
**Our health is at risk.** Our bodies and immune systems are still developing, and we are more at risk. Rising temperatures, heatwaves, pollution and floods worsen respiratory diseases and spread waterborne illnesses. Climate stress fuels our anxiety and affects mental health and well-being. Despite this, many health services and facilities still do not have the staff, equipment, or medicine we need and for some of us, they are too far to reach.

*(Source: Statement of Filipino Children and Youth on Nationally Determined Contributions and Just Transition)*

### Box 1. Health: Sectoral overview and climate-environment-DRR impacts

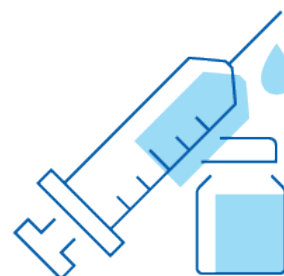
#### Key sector highlights:<sup>112,113</sup>



**Child survival** is improving but remains a challenge. Between 2017 and 2022, the under-five mortality rate is stagnated slightly (from **27 to 26 deaths per 1,000 live births**), while neonatal and infant mortality rates rose marginally.



**Neonatal deaths** account for nearly **50 per cent of under-five** child deaths. Children from the poorest households are almost four times more likely to die before age five than those from the wealthiest.



**Immunization** gaps persist. Fully immunized children **declined from 69 per cent in 2019 to 64 per cent in 2024** while the number of children unvaccinated against diphtheria-pertussis-tetanus increased from **603,543 in 2019 to 691,277 in 2024**.

<sup>111</sup> UNICEF, How many children are there in the Philippines?

<sup>112</sup> UNICEF, 2024. Draft country programme document

<sup>113</sup> Seureca-Cibola Partners and INSUCO, 2025. *Children's Climate Risk Assessment: Philippines*.



Adolescents face additional risks: **5.4 per cent of girls report pregnancy, 12 per cent have a mental health challenge**, and youth aged 15–24 account for **30 per cent of new HIV cases**.

Although enabling health policies exist, decentralized local health systems encounter a varying levels of capacities with challenges such as investment for health, retention of human resources for health, supply chains, quality data collection and community engagement to improve care-seeking behaviours, limiting the responsiveness of primary healthcare.

### Key climate and environment impacts on health:



By 2050, nearly **99 per cent of children** in the Philippines will experience **five or more heatwaves annually**, increasing risks of heatstroke, dehydration and preterm births.



The **risk of outbreaks is increasing** due to changing climate patterns. Higher temperature, shifting rainfall patterns and increased intensity of typhoons change the environment to be favourable to transmission of vector-borne diseases such as dengue and malaria. Flooding brought by heavy rainfall contributes to transmission of **waterborne diseases like leptospirosis**. **Children under nine account for nearly half of all dengue deaths**.



Typhoons, floods and sea level rise disrupt health services, especially in coastal, rural and low-lying areas, compromising care for children and pregnant women.



In 2019, around 21,700 avoidable deaths in the Philippines were attributable to PM2.5 exposure.<sup>114</sup>



**Mental health** is a growing concern: Filipino youth showed the highest levels of climate anxiety in a 2021 global study. Young people in hazard-prone areas are especially affected by trauma and worry about the future.

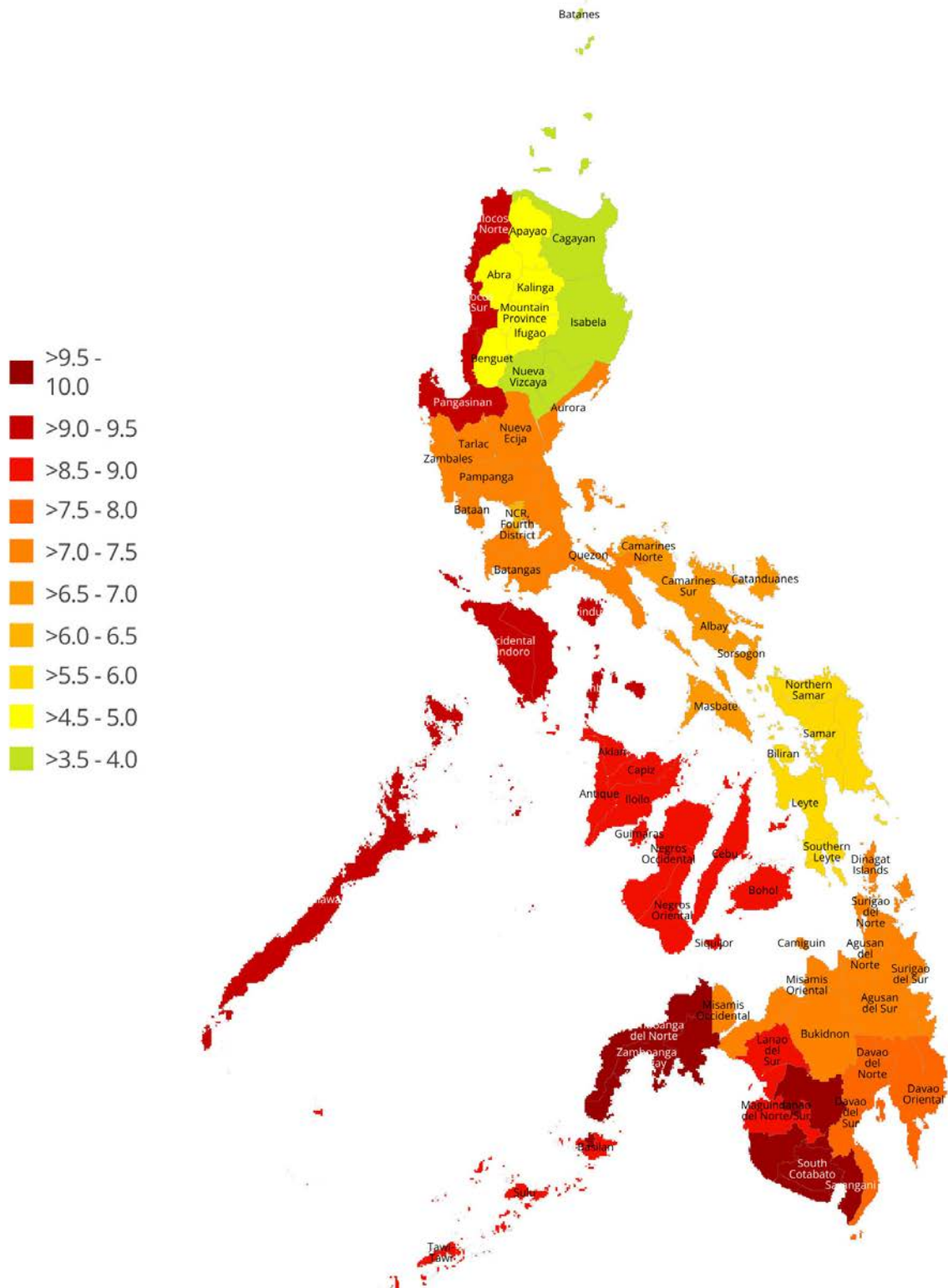


Disproportionate impacts are felt by Indigenous children, children with disabilities, infants and pregnant women, due to poor access to care, compounded by climate-related disruptions.

<sup>114</sup> Health Effects Institute (HEI). 2020. *State of Global Air 2020*. Special Report. Boston, MA: Health Effects Institute. <https://www.stateofglobalair.org/report>

UNICEF created a composite index of child health vulnerability using national data sets. All indicators used are shown in Table 3 and were normalized to a common scale (1-10), with higher values indicating greater risk. The results are combined with other indicators of child vulnerability and used to develop the UNICEF CCRI (see Section 3.9).

**Figure 4: Child health vulnerability index by province**



**Table 3. Child health vulnerability indicators and data sources**

Indicator	Source	Institution	Year
Neonatal mortality rate	NDHS	PSA	2022
Infant mortality rate	NDHS	PSA	2022
Percentage of women aged 15-49 years with 4+ antenatal care visits	NDHS	PSA	2022
Proportion of births delivered in a health facility	NDHS	PSA	2022
Percentage of children aged 12-23 months who are fully vaccinated with basic antigens	NDHS	PSA	2022
Percentage of children aged 12-23 months who received no vaccination	NDHS	PSA	2022

Children are inherently more vulnerable to the impacts of climate change compared to adults, as their bodies and immune systems are still developing. Climate change and environmental degradation heighten risks to their physical, mental, social and emotional health, posing significant challenges to their overall well-being and future. These challenges are especially acute in regions where health systems face structural weaknesses, poor immunization coverage and high exposure to extreme weather events.

- 1. Impaired lung development and respiratory illnesses.** Children's lungs are still developing, and they breathe almost twice as fast as adults, making them more susceptible to air pollution, including smog and smoke from industrial activities, fuel combustion, agriculture and wildfire. Poor air quality exacerbated by climate conditions such as heatwaves and stagnant air masses can increase respiratory illnesses among children.
- 2. Heightened heatstroke and dehydration.** Children have a faster metabolism and produce less sweat, making them more vulnerable to extreme heat. The developing bodies of children are less capable of regulating body temperature, which increases the risk of heatstroke and dehydration. In 2020, around 1.1 million Filipino children experienced 4.5 or more heatwaves per year, while around 1.9 million children were affected by prolonged heatwaves of 4.7 days or more. By 2050, projections show that 33.5 million or 99 per cent of Filipino children will experience five or more heatwaves annually, with 26.3 million or 77 per cent enduring prolonged heatwaves.<sup>115</sup> The Department of Health (DOH) recorded at least 118 cases of heat exhaustion in Manila in March 2024, with 33 of those cases coming from four high schools in Valenzuela City on a single day.<sup>116</sup>

<sup>115</sup> Baclig, C. 2028. Climate crisis exposes millions of children to dangers of frequent heatwave. *Inquirer News*. October 28.

<sup>116</sup> Sarao, Z. 2023. DOH records 118 cases of heat exhaustion of students in March. *Inquirer News*. April 4. <https://newsinfo.inquirer.net/1752307/doh-records-118-cases-of-heat-exhaustion-in-march>

3. **Increased transmission of waterborne, foodborne and vector-borne diseases.** Children are particularly vulnerable to waterborne, foodborne and vector-borne diseases due to their developing immune systems. Climate change significantly impacts the transmission of vector-borne diseases by increasing temperatures, which accelerate mosquito development and enhance virus transmission rates.<sup>117</sup> Altered rainfall patterns create more breeding sites for mosquitoes, and extreme weather events like typhoons and floods lead to stagnant water, increasing mosquito breeding.<sup>118</sup> Dengue is a significant concern, reporting year-around sporadic outbreaks across the country. 28,234 dengue cases were recorded from January 1 to February 1, 2025, with a 40 per cent increase from the same period in 2024.<sup>119</sup> Nearly half of all dengue deaths in the Philippines are children under nine years old.<sup>120</sup> Malaria persists, although cases are mostly confined to Palawan, with 401 cases reported in 2022. Flooding brought by heavy rainfalls contributes to the increase in leptospirosis cases. As of May 2025, 1,909 leptospirosis cases were reported with a 66 per cent increase compared to the year before. The Philippines has also reported cases of Zika virus, which shares the same vector with dengue virus, with six new cases confirmed in 2023.<sup>121</sup>
4. **Accelerated development of antimicrobial resistance.** Climate change has both direct and indirect effects on antimicrobial resistance. Children are particularly vulnerable to the spread of drug-resistant pathogens, especially in environments with poor WASH services. Climate change also contributes to the emergence and re-emergence of infectious diseases, complicating efforts to manage these diseases effectively. Prophylactic use of antimicrobials is a common practice in the Philippines during emergencies especially if caused by typhoons, heavy rainfalls and floodings. In such settings, the overuse and misuse of antimicrobials—often due to self-administration, lack of adherence and insufficient provision of antimicrobials—further accelerate the development of antimicrobial resistance.
5. **Disruption of essential healthcare services.** Typhoons and floods often result in the destruction of health facilities and the disruption of essential healthcare services. Time-sensitive conditions, such as childbirth, diarrhoea, and pneumonia, are especially vulnerable during disasters. In remote areas, the closure or damage of small healthcare centres deprives pregnant women and children of their primary point of care.<sup>122</sup> Disruptions in electricity further compromise healthcare delivery, especially during disasters when the system is strained by limited surge capacity and medical supplies. Coastal and low-lying health facilities face submersion risks from storms, floods and SLR, severely limiting access. This is particularly concerning in regions such as Bicol; MIMAROPA; South Cotabato, Cotabato, Sultan Kudarat, Sarangani, and General Santos (SOCCSKSARGEN); and BARMM, where health systems already show structural weaknesses and are highly exposed to climate hazards. Displacement from such events further impedes continuity of care for children and mothers. Furthermore, case surges caused by disease outbreak stretches health systems capacities to respond to emergencies while maintaining the provision of essential services. As

<sup>117</sup> Science Advances. 2025. *Disentangling climate's dual role in dengue dynamics: A multi-region causal analysis study*. <https://www.science.org/doi/reader/10.1126/sciadv.adq1901>

<sup>118</sup> UP Manila. 2022. *Climate change and parasitic and vector-borne diseases*. June 7. [https://www.upm.edu.ph/cpt\\_news/climate-change-and-parasitic-and-vector-borne-diseases/](https://www.upm.edu.ph/cpt_news/climate-change-and-parasitic-and-vector-borne-diseases/)

<sup>119</sup> Rappler. 2025. *Rising dengue cases seen in Metro Manila, Calabarzon, Central Luzon*. February 17. <https://www.rappler.com/philippines/dengue-cases-doh-report-february-17-2025/>

<sup>120</sup> Save the Children. 2019. *Nearly half of all dengue deaths in the Philippines are children under nine years old*. <https://www.savethechildren.net/news/nearly-half-all-dengue-deaths-philippines-are-children-under-nine-years-old>

<sup>121</sup> *Inquirer*. 2023. *6 new Zika virus cases confirmed in PH – DOH.*, September 27. <https://newsinfo.inquirer.net/817263/6-new-zika-virus-cases-confirmed-in-ph-doh>

<sup>122</sup> Hernando-Malipot, M. 2023. *'Climate crisis is a health crisis': DOH to strengthen resilience of PH health systems*. *Manila Bulletin*. December 3. <https://mb.com.ph/2023/12/3/climate-crisis-is-a-health-crisis-doh-to-strengthen-resilience-of-ph-health-systems>

seen in the leptospirosis case surge in the NCR in 2025, which led to operating emergency rooms at overcapacity, disrupted provision of essential health services can affect all settings, leaving children who need continuous care more vulnerable.

6. **Underperforming immunization coverage and regional disparities.** Immunization remains a core component of health resilience while protecting children from preventable diseases and improving their survival. In 2024, 64.85 per cent of children under five years old were reported fully vaccinated. Despite the progress, around 718,000 children still need to be fully immunized to achieve the national target of 95 per cent. Ten out of 17 regions fall below the national average, including Region 4B (59 per cent), Region 5 (48 per cent), Region 8 (48 per cent) and BARMM (52 per cent).<sup>123</sup> These disparities point to significant inequities in the healthcare system that affect children's ability to cope with disease outbreaks exacerbated by climate change.<sup>124</sup>
7. **High under-five mortality in vulnerable regions.** The under-five mortality rate is a key indicator of child well-being and system performance. Ilocos Region and Zamboanga Peninsula report the highest under-five mortality rates nationally, reflecting deeper systemic gaps in healthcare access and quality in areas that are often concurrently exposed to natural hazards.
8. **Increasing mental health risks from climate anxiety and psychological distress.** Beyond physical health, climate change is having a significant mental health effect on children. Climate anxiety is prevalent among young people, who express increasing concern about their future.<sup>125</sup> A 2021 survey, which studied the psychological distress of 10,000 youth across 10 countries, revealed that the Philippines had the highest levels of climate-related anxiety.<sup>126</sup> Seventy-nine per cent of Filipinos under 18 years old view climate change as an emergency, and 84 per cent are extremely or very worried about it. This anxiety is compounded by the trauma of experiencing natural disasters. Among Filipino children, those living in typhoon- and flood-prone regions, such as regions V (Bicol) and VIII (Eastern Visayas), seem to exhibit heightened anxiety levels. In coastal communities, the psychological well-being of children is also severely impacted by SLR, while a study in rural coastal areas on the threat of inundation and powerful currents, caused additional stress and anxiety for children.<sup>127</sup>
9. **Disproportionate health impacts of climate change on vulnerable groups.** Certain groups of children are disproportionately affected by the impacts of climate change. Indigenous children, particularly those living in isolated areas, and children with disabilities are more vulnerable, as they may require unique and additional healthcare support, which can be disrupted by climate-related events. Additionally, pregnant women, lactating mothers and newborns are particularly at risk to climate impacts. Extreme heat can lead to preterm births, with preterm birth rates rising by 60 per cent due to extreme temperatures.<sup>128</sup> For every 1°C rise in temperature, there

<sup>123</sup> FHSIS. 2024. *Annual report*.

<sup>124</sup> *Children's Climate Risk Assessment: Philippines*.

<sup>125</sup> UNICEF. 2021. *Healthy Environments for Healthy Children: Global Programme Framework*. New York: UNICEF.

<sup>126</sup> Bernal, B., and Jalelah Abu Baker. 2023. "We Have to Do Something: Philippine Schools, Students Grapple with Floods as Climate Change Forces Them to Adapt." *Channel News Asia*, December 11. <https://www.channelnewsasia.com/asia/philippines-riverside-community-schools-students-flooding-climate-change-sea-levels-3979616>.

<sup>127</sup> Taguiam, C., and Cecille Quiambao. n.d. "Rural Coastal Household's Cognition of Sea Level Rise: The Case of Zambales, Philippines." Philippine Statistics Authority. <https://psa.gov.ph/sites/default/files/ncs-manuscripts-powerpoint/Session%25201-5%2520Rural%2520Coastal%2520Households%2527%2520Cognition%2520of%2520Sea%2520Level%2520Rise%2520The%2520Case%2520of%2520Zambales%25-2C%2520Philippines.pdf>.

<sup>128</sup> Weeda, L., et al. 2024. "How Climate Change Degrades Child Health: A Systematic Review and Meta-Analysis." *Science of the Total Environment* 920. <https://www.sciencedirect.com/science/article/pii/S0048969724010830>.

is a 5 per cent increase in preterm births, and stillbirth rates increase by 5 per cent.<sup>129</sup> Extreme temperatures also lead to dehydration, which can cause complications during pregnancy and affect breast milk production. Children under one year old are also prone to heat-related deaths because of possible fever, electrolyte imbalance and other heat-induced illnesses. Finally, children in families that depend on agriculture or natural resources, as well as those living in poverty, are more likely to experience increased financial strain due to climate impacts, which can limit their access to essential healthcare services.

## 3.2 Nutrition

**Children and Youth Voices**  
**“We suffer from malnutrition and hunger.** Droughts and typhoons destroy crops. Poor families, including fisherfolk and farmers, cannot afford nutritious food. Disasters disrupt our school-based feeding programs. On the other hand, excessive food waste and overflowing and mis-managed landfills emit methane, making climate change even worse.

*(Source: Statement of Filipino Children and Youth on Nationally Determined Contributions and Just Transition)*

### Box 2. Nutrition: Sectoral overview and climate-environment-DRR impacts

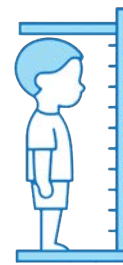
#### Key sector highlights:<sup>130,131</sup>



Multiple forms of malnutrition persist: **23.6 per cent of children under five are stunted**, with rates as high as **34.3 per cent in BARMM**. **Wasting affects 7 per cent of children aged 0–2, while anaemia impacts 43.1 per cent of children aged 6–12 months.**



**Overweight and obesity** are on the rise: The prevalence of overweight has nearly tripled since 2003, now affecting **12.9 per cent of children aged 5–10 and 12.5 per cent of adolescents aged 10–19**, especially in urban and wealthier regions.



**23.6 per cent of children under five** are with stunted growth and development, **15.1 per cent underweight**, and **5.6 per cent are suffering from thinness**—figures that remain uneven across regions with increasing disparities.

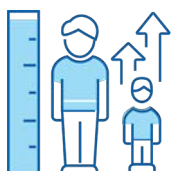
<sup>129</sup> Chersich, M. F., M. D. Pham, A. Areal, M. M. Haghghi, A. Manyuchi, C. P. Swift, B. Wernecke, M. Robinson, R. Hetem, M. Boeckmann, and S. Hajat; Climate Change and Heat-Health Study Group. 2020. “Associations between High Temperatures in Pregnancy and Risk of Preterm Birth, Low Birth Weight, and Stillbirths: Systematic Review and Meta-analysis.” *BMJ* 371 (November 4): m3811. <https://doi.org/10.1136/bmj.m3811>.

<sup>130</sup> UNICEF. 2024. Draft country programme document.

<sup>131</sup> *Children’s Climate Risk Assessment: Philippines*.



Significant **decrease in early initiation of breastfeeding** (from 72.4 per cent to 61.2 per cent) and **exclusive breastfeeding** (from 60.1 per cent to 50.4 per cent).



Among **adolescents**, 20.7 per cent are with **stunted growth**, 11.5 per cent are **suffering from wasting**, 12.5 per cent are either **living with overweight or obesity**, and 5.8 per cent have **anaemia**.



Barriers to progress include lack of a national nutrition-sensitive framework, **weak enforcement of the Philippine Milk Code**, and unregulated sale of unhealthy foods—including in schools.



Systemic constraints such as **fragmented data systems**, **under-resourced services** and **supply chain gaps** hinder delivery of nutrition interventions.



**Household food insecurity**, **poor dietary diversity** and **limited caregiver knowledge**—especially among fathers—continue to affect child nutrition.

### Key climate, environment and energy impacts on nutrition:



**Typhoons, floods and droughts** caused up to **98 per cent of production losses** between 2013–2020, reducing food availability.

Heat, drought and saltwater intrusion undermine soil and crop quality, **pushing families towards cheap, nutrient-poor processed foods**—worsening both undernutrition and overnutrition and exacerbating poor feeding practices from caregivers.



Climate shocks disrupt supply chains and spike food costs, limiting access to diverse, nutritious diets—especially in poor, rural and geographically isolated and disadvantaged areas.

Disasters force families to relocate, disrupting local food systems and feeding practices and amplifying hunger risks in already fragile areas.

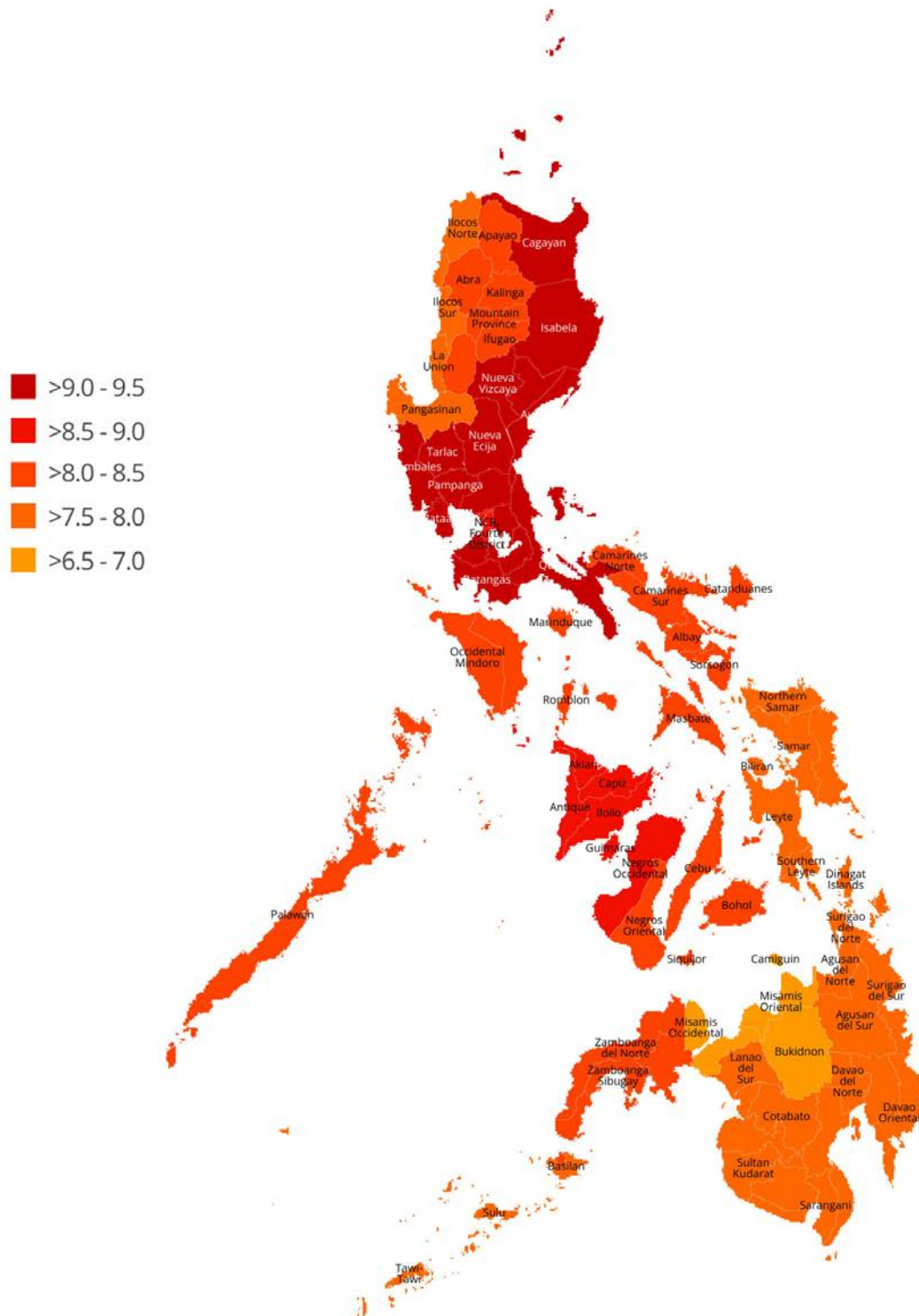
**Typhoons and floods disrupt access to nutrition services** from healthcare facilities and health workers.

Children in indigenous communities, low-income families and climate-exposed areas face the highest nutritional risks due to limited adaptive capacity.

**Climate-vulnerable regions** such as BARMM, SOCCSKSARGEN, MIMAROPA and the Zamboanga Peninsula show high stunting or wasting rates. Overweight trends are notable in Central Luzon, Cordillera Administrative Region, NCR, CALABARZON, highlighting a **growing double burden of malnutrition**.

UNICEF created a composite index of child nutrition vulnerability using national data sets. All indicators used are shown in Table 4 and were normalized to a common scale (1-10), with higher values indicating greater risk. The results are combined with other indicators of child vulnerability and used to develop the UNICEF’s CCRI (see Section 3.9).

**Figure 5: Child nutrition vulnerability index by province**



**Table 4. Child nutrition vulnerability indicators and data sources**

Indicator	Source	Institution	Year
Prevalence of stunting among children aged 0-59 months	National Nutrition Survey	DOST-FNRI	2023
Prevalence of wasting among children aged 0-59 months	National Nutrition Survey	DOST-FNRI	2023
Prevalence of overweight-for-height among children aged 0-59 months	National Nutrition Survey	DOST-FNRI	2023
Prevalence of wasting among school-age children 5-10 years	National Nutrition Survey	DOST-FNRI	2023
Prevalence of overweight/obesity among school-age children 5-10 years	National Nutrition Survey	DOST-FNRI	2023
Prevalence of wasting among adolescents >10-19 years	National Nutrition Survey	DOST-FNRI	2023
Prevalence of overweight/obesity among adolescents aged >10-19 years	National Nutrition Survey	DOST-FNRI	2023
Proportion of children aged 6-23 months meeting the minimum acceptable diet	National Nutrition Survey	DOST-FNRI	2023
Prevalence of low birthweight among newborns	National Demographic and Health Survey	PSA	2022

Climate change is pushing more children into malnutrition and threatening to slow and even unwind progress towards the Sustainable Development Goals' child nutrition targets.<sup>132</sup> Malnutrition rates in the Philippines remain high, with various forms of malnutrition affecting children. Twenty-nine per cent of children under five years old suffer from stunting, 19 per cent are underweight, and 6 per cent experience wasting.<sup>133</sup> Addressing undernutrition and malnutrition is essential for ensuring the health and well-being of children, particularly amid the growing challenges posed by climate change.

Recent analysis of the National Nutrition Index, which aggregates rates of stunting, wasting and overweight among children, confirms significant regional disparities. Stunting is most prevalent in BARMM, SOCCSKSARGEN and the Zamboanga Peninsula, with children under five most affected. MIMAROPA, Western Visayas and Bicol show the highest levels of wasting, particularly among older children aged 10–19. Meanwhile, overweight and obesity are emerging concerns, especially in urbanized and wealthier regions such as NCR, Cagayan and the Cordillera Administrative Region, where children aged 5–10 are increasingly affected. When aggregating vulnerabilities, MIMAROPA, Central Luzon, the Zamboanga Peninsula and BARMM rank as the most nutrition-vulnerable regions, requiring urgent and context-specific interventions.<sup>134</sup>

<sup>132</sup> Food and Agriculture Organization of the United Nations, et al., 2018. *The State of Food Security and Nutrition in the World 2018. Building climate resilience for food security and nutrition*. Rome: FAO.

<sup>133</sup> World Bank. 2021. *Undernutrition in the Philippines: Scale, Scope, and Opportunities for Nutrition Policy and Programming*. Retrieved from <https://thedocs.worldbank.org/en/doc/c8c10ff8b15291d1846cb8b73714aa08-0070062021/original/PH-Undernutrition-Report-Executive-Summary-2021.pdf>.

<sup>134</sup> *Children's Climate Risk Assessment – Philippines*

1. **Increase in hunger and malnutrition.** Malnutrition undermines children's cognitive and physical development, which in turn affects school performance and prospects. Climate shocks and economic stressors exacerbate these risks, especially for children in food-insecure households.
2. **Reduced crop yields and agricultural production.** The Philippines has experienced a notable decrease in crop yields due to changing weather patterns, increased temperatures and extreme weather events. For instance, rice production, a staple food in the Philippines, has been affected by climate variability, with a 10 per cent variance in production anomalies linked to soil moisture changes driven by ENSO.<sup>135</sup> From 2013 to 2020, 98 per cent of agriculture production losses were attributed to climate-related hazards, particularly typhoons. This catastrophic impact is largely because the typhoon season coincides with the harvest season from October to December.<sup>136</sup> According to the Department of Agriculture, the Philippines experiences destructive typhoons annually, causing devastating damage to the agricultural sector. Notably, 96 per cent of this damage is production-related, while 4 per cent affects infrastructure and processing machinery. SLR also negatively affects soil quality, reducing the nutritional value of food that should benefit young people.
3. **Decreasing food nutrient adequacy and diminishing dietary diversity.** As global warming continues to affect agricultural production, food supply becomes more constrained, the availability of nutritious foods is reduced, and food prices rise. The Philippine food system faces challenges in diversification and resilience, leading to decreased food nutrient adequacy and ecosystem stability.<sup>137</sup> Reductions in crop yields and diminished food quality impacts dietary diversity,<sup>138</sup> leading families to rely on cheaper, ultraprocessed and often unhealthy food. With the decline in exclusive breastfeeding and nutritionally inadequate complementary foods, the triple burden of malnutrition-undernutrition, overnutrition and micronutrient deficiencies become more prevalent. This is evident in regions like the National Capital Region, Central Luzon and Cordillera Administrative Region, where childhood obesity is rising.
4. **Migration and displacement caused by climate hazards exacerbate food security issues.** In the aftermath of typhoons, flooding and drought, some families are forced to migrate to other areas in search of food. However, these migrations or displacements can exacerbate the issue of food security, as new areas may not guarantee food availability. Additionally, increased internal migration can result in the over-exploitation of land, further degrading ecosystems and soil health, which are critical for maintaining agricultural productivity. These changes disrupt the microclimate and ecological balance, making agriculture even more difficult in affected regions. At the same time, displacement interrupts **nurturing care practices**: caregivers face added stress and uncertainty, feeding routines are disrupted and safe spaces for childcare may be lost. This weakens **infant and young child feeding practices**, as breastfeeding and appropriate complementary feeding become harder to sustain under conditions of crowding, instability or lack of support. Together, these factors compound the risks to child nutrition and development.

<sup>135</sup> Stuecker, M. F., Tigchelaar, M., & Kantar, M. B. 2018. Climate variability impacts on rice production in the Philippines. *PLoS ONE*, 13(8), e0201426. <https://doi.org/10.1371/journal.pone.0201426>

<sup>136</sup> Department of Agriculture. n.d. Climate Action Strategies: A Technical Presentation.

<sup>137</sup> Golloso-Gubat, M. J., A. dR. Felix, N. A. Tandang, C. C. S. Acuin, and P. U. Gordoncillo. 2024. "Sustainability of the Philippine Food System." *Frontiers in Sustainable Food Systems* 8. <https://doi.org/10.3389/fsufs.2024.1278891>.

<sup>138</sup> World Food Programme (WFP). 2021. *Philippine Climate Change and Food Security Analysis*. Rome: WFP. <https://www.wfp.org/publications/philippine-climate-change-and-food-security-analysis>.

**5. Disproportionate nutrition-related impacts of climate change on vulnerable groups.**

Children from poor households are particularly vulnerable to these challenges, as they have lower adaptive capacity due to limited financial resources, making it harder for families to purchase nutritious food, especially during times of disasters or droughts. Filipino children in low-income families, who already struggle with limited access to proper nutrition, are at an even higher risk of malnutrition due to crop failures and rising food prices driven by climate change. Similarly, children in geographically isolated and disadvantaged areas (GIDA) often face food insecurity, as calamities make it harder for them to access nutritious food. Families dependent on agriculture, particularly in rural areas, may experience loss of livelihood due to climate change, further limiting their ability to obtain and afford healthy food.

### 3.3 Water, sanitation and hygiene (WASH)

**Children and Youth Voices**  
**Our access to safe and clean water is inadequate.** Droughts dry up sources of water, and floods - worsened by improper waste disposal - contaminate them. Too many of us have no choice but to use unsafe water, and not enough toilets or handwashing facilities, making us more prone to illness. These get worse during disasters, when systems break down and basic services become inaccessible to us.

*(Source: Statement of Filipino Children and Youth on Nationally Determined Contributions and Just Transition)*

#### Box 3. WASH: Sectoral overview and climate-environment-DRR impacts

**Key sector highlights:**<sup>139,140</sup>

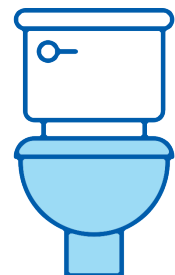


Over **52 per cent of households lack access to safely managed water and over 37 per cent lack access to safely managed sanitation** (2023).

Access is lower in rural areas. In urban areas, poor containment and faecal sludge management remain public health risks, particularly in climate-vulnerable urban zones.

**Hygiene access is relatively high**, with 79 per cent of rural and 85 per cent of urban populations using basic facilities.

**BARMM remains most vulnerable: 13.8 per cent of the poorest households and 17.8 per cent of households in BARMM still practice open defecation, and some provinces have no access to safely managed drinking water.**



<sup>139</sup> UNICEF. 2024. Draft country programme document.

<sup>140</sup> *Children's Climate Risk Assessment: Philippines.*



Less than half of schools have access to basic drinking water, and only 61 per cent provide hygiene facilities, exposing millions of children to unsafe learning environments.

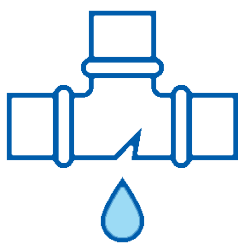
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Key barriers to equitable WASH access include uneven financing, fragmented coordination and limited technical capacity, especially at local levels.

### Key climate, environment, and energy impacts on water, sanitation and hygiene:



By 2040, the Philippines could face extreme water stress, with up to 80 per cent of water supply at risk, ranking among the world's most water-stressed countries.



Typhoons, floods, storm surge and landslides damage water infrastructure (water sources, treatment plants, distribution networks, etc.), disrupting access to water services.

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Typhoons, floods, storm surge and landslides damage sanitation infrastructure (toilets, pipes, treatment plants, etc.) and lead to the discharge of wastewater and faecal sludge in the environment, increasing the risk of diseases outbreaks. Droughts prevent water-based sanitation systems from working, disrupting access.

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Typhoons, floods, storm surge and saltwater intrusion from sea level rise impose higher costs for maintenance, thus compromising the long-term sustainability of service delivery.

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Typhoons, floods and storm surge carry contaminants and debris into water sources, while drought leads to the concentration of contaminants in waterbodies, reducing availability of clean water and increasing treatment costs.

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Sanitation remains an underestimated source of greenhouse gas emissions, notably methane.

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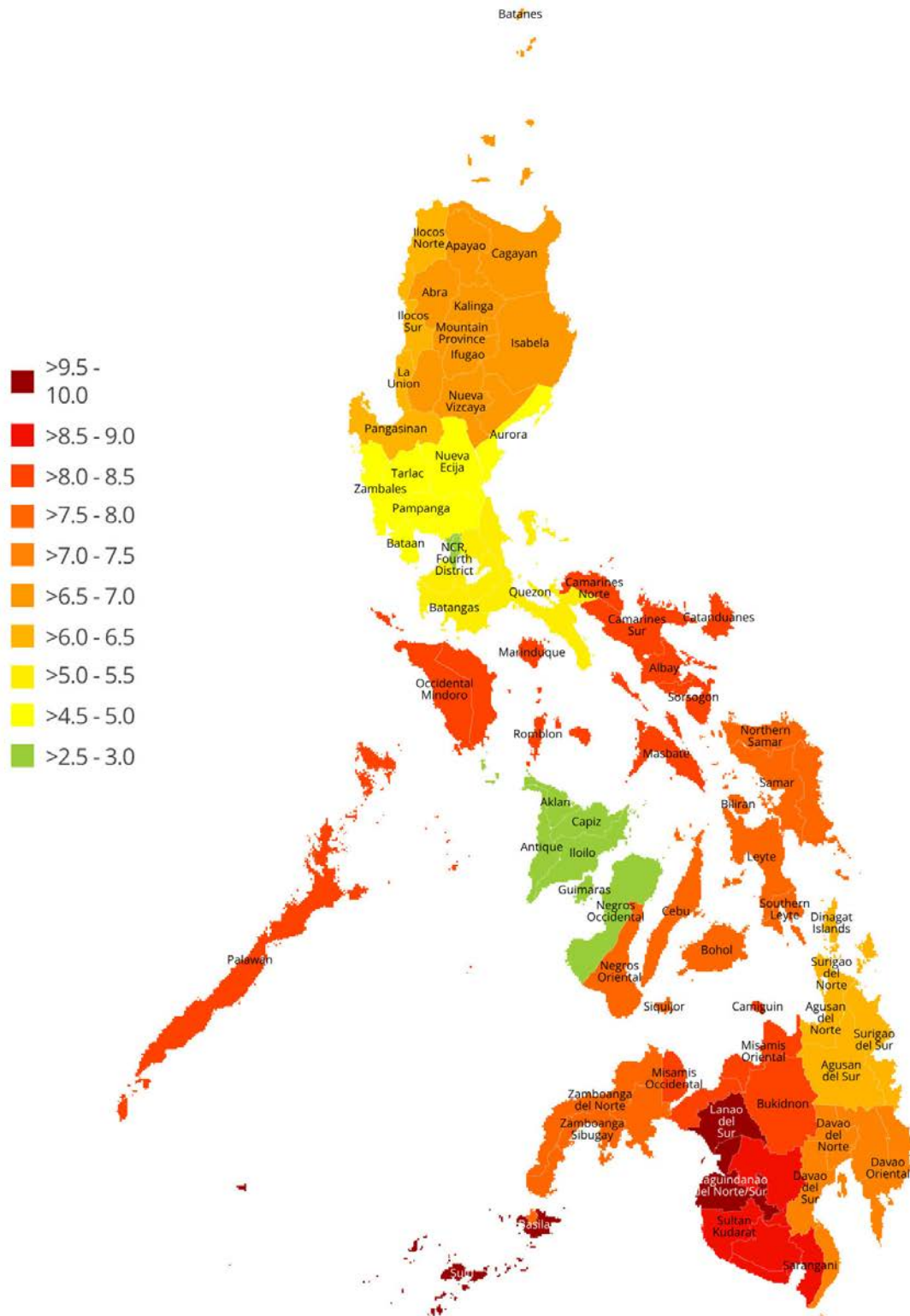
Water scarcity and droughts place added physical and emotional burdens on children, particularly girls, who walk long distances or store water unsafely, increasing exposure to disease.

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WASH vulnerabilities are greatest in BARMM, rural, indigenous and GIDA communities, where open defecation remains prevalent, and access to resilient WASH infrastructure is critically low.

UNICEF created a composite index of WASH vulnerability using national data sets. All indicators used are shown in Table 5 and were normalized to a common scale (1–10), with higher values indicating greater risk. The results are combined with other indicators of child vulnerability and used to develop the UNICEF’s CCRI (see Section 3.9).

**Figure 6: WASH vulnerability index by province**



**Table 5. WASH vulnerability indicators and data sources**

Indicator	Source	Institution	Year
Proportion of families with access to at least basic drinking water services	APIS	PSA	2024
Proportion of families with access to at least basic services	APIS	PSA	2024
Proportion of families with access to at least basic handwashing services	APIS	PSA	2024
Proportion of schools with 2–3-star rating (Overall)	WINS	PSA	SY 2023-2024

In the Philippines, access to WASH services has been growing steadily since 2000. In rural areas, where 52 per cent of the population lives, access to safely managed water services increased from 33 per cent to 35 per cent and sanitation services increased from 59 per cent to 69 per cent between 2015 and 2022.<sup>141</sup> Open defecation, still practised by approximately 3 per cent of the population,<sup>142</sup> worsens the situation, contributing to stunting and waterborne diseases, which affect children’s health and development. Access to WASH services in schools also remains low: 19 per cent of school children drink water from unimproved sources or have no access to water in schools at all.<sup>143</sup> The lack of gender-responsive and disability-inclusive WASH infrastructure limits children’s ability to learn in a safe and healthy environment. Poor WASH services contribute to poor health and nutrition of children, particularly stunting, which impacts over 3.8 million Filipino children under 5 and leads to an economic burden of PHP 5 billion annually.<sup>144</sup> The situation is particularly dire in indigenous communities, rural areas and GIDA, where WASH services are poorest.<sup>145</sup>

Climate change exacerbates these challenges by intensifying the frequency and severity of typhoons, floods, droughts and SLR—threatening the sustainability of water systems, damaging infrastructure and impairing hygiene conditions for children across the country.

<sup>141</sup> UNICEF/WHO. Joint Monitoring Program. <https://washdata.org/>

<sup>142</sup> UNICEF/WHO Joint Monitoring Program. 2022. *County File Philippines*

<sup>143</sup> Ibid.

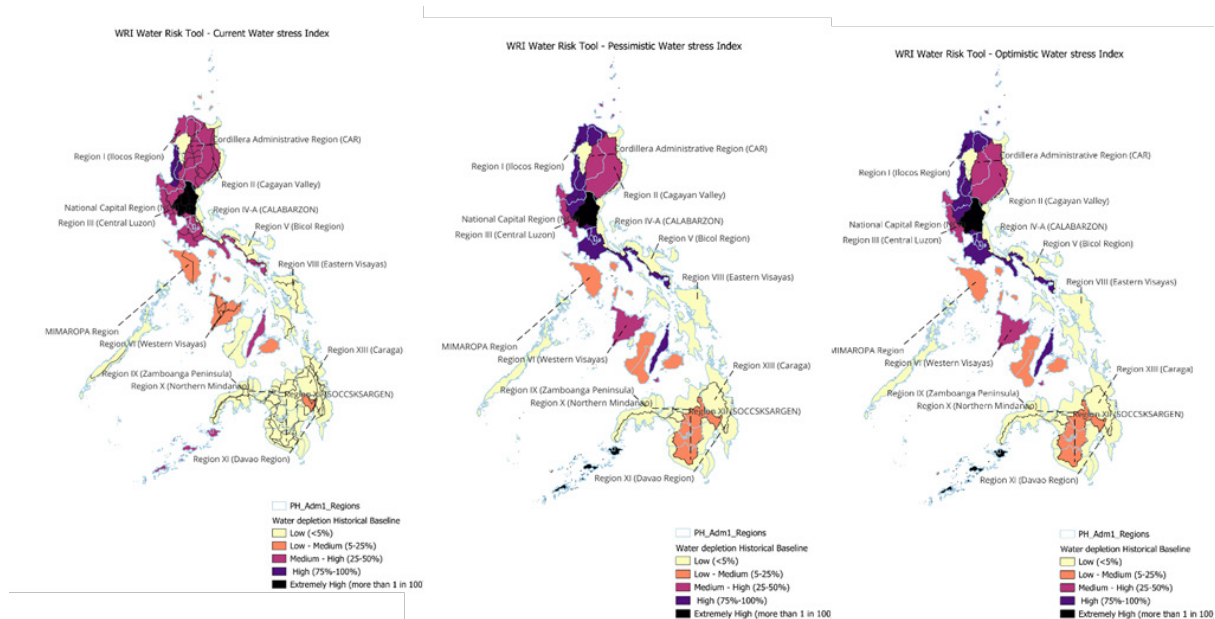
<sup>144</sup> National Economic and Development Authority (NEDA). n.d. *Philippine Water Supply and Sanitation Master Plan*.

<sup>145</sup> UNICEF. 2023. “Climate Change Is Altering the Mental and Physical Health of Children.” Press release, November 30. Manila: UNICEF. <https://www.unicef.org/philippines/press-releases/climate-change-altering-mental-and-physical-health-children-unicef-report>.

1. **Increasing water stress threatens water supply.** By 2040, the Philippines is projected to face extreme water stress, with 40 per cent to 80 per cent of its water supply potentially depleted due to climate-related impacts, making it one of the most water-stressed countries globally, ranking 57<sup>th</sup> out of 167 in terms of risk.<sup>146</sup> Spatial analysis using the WRI Water Risk Tool highlights growing competition for water in many regions:

- Luzon is highly urbanized and already experiences high competition for water.
- Cebu, Bohol and Panay Island in the Visayas are under growing pressure due to urban expansion and limited supply.
- Parts of Davao del Norte currently faces low-medium stress, but this is expected to worsen under both optimistic and pessimistic climate scenarios affecting neighbouring provinces in the SOCCSKSARGEN region.
- The Basilan, Sulu and Tawi-Tawi island provinces face some of the country’s most severe water stress. Due to geographic isolation, it relies heavily on rainfall and even diesel-transported water imports—calling for tailored water management strategies.

**Figure 7: WRI water risk tool stress index - left to right - current, pessimistic, optimistic scenarios**



Source: Seureca-Cibola Partners-Insuco (2025)

<sup>146</sup> Philippine Water Supply and Sanitation Master Plan.



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Milag Orandang washes the hands of her 11-month-old and undernourished son, Lucman in an open water source outside their home in Brgy. Pilintangan, Lanao Del Sur, Philippines. The family relies on spring water for their regular washing to maintain proper hygiene for cleaner and safer surroundings.

2. **Typhoons, floods, storm surge and landslides damage WASH infrastructure.** Frequent and stronger typhoons continue to destroy water and sanitation infrastructure in schools and communities, leaving children without access to safe drinking water and adequate hygiene. During evacuation and displacement, many emergency shelters—including schools—lack safe WASH facilities, compounding the vulnerability of children and their caregivers.
3. **Hotter temperatures and drought lead to increased disease risk.** Drought leads to water scarcity, impacting drinking water, sanitation and hygiene needs. Children, particularly in rural areas, are often tasked with collecting water, putting additional physical and emotional strain on them. Households are also forced to store water in possibly contaminated containers, which poses serious health risks, particularly to children. For every 1°C increase in temperature, there is also an 8 per cent increase in *E Coli* related to diarrhoea, one of the leading causes of illness and death of children.<sup>147</sup>
4. **Saltwater intrusion reduces access to safe drinking water and degrades sanitation systems.** SLR is a growing concern as it can lead to saltwater intrusion, affecting water quality in coastal and even landlocked areas.
5. **BARMM region faces the highest WASH vulnerability.** Despite relatively strong national WASH indicators, BARMM stands out for its extremely high vulnerability:<sup>148</sup>
  - Around 10 per cent of the population practices open defecation—the highest rate nationally; while another 20 per cent rely on unimproved sanitation facilities.<sup>149</sup>
  - The region faces compounded risks from storm surges, droughts and malaria prevalence.
  - Data limitations persist: BARMM was not included in the WASH in Schools Three-Star Program assessment, and many island areas lack adequate data sets, despite anecdotal evidence of communities relying entirely on rainfall.

<sup>147</sup> Philipsborn, R., Ahmed, Brosi, B. and Levy, K. Climatic Drivers of Diarrheagenic Escherichia coli Incidence: A Systematic Review and Meta-analysis. 2016. *The Journal of Infectious Diseases*. 29 Feb. <https://pmc.ncbi.nlm.nih.gov/articles/PMC4907410/#:~:text=Results,face%20of%20increasing%20global%20temperatures>.

<sup>148</sup> *Children's Climate Risk Assessment: Philippines*.

<sup>149</sup> Philippine Statistics Authority. 2024. *Annual Poverty Indicators Survey*.

## 3.4 Education

### “Children and Youth Voices

**Our learning is often disrupted.** Schools close when storms hit or classrooms get too hot. Many of us lack safe buildings, toilets, clean water or disaster plans. Climate stress, illness and displacement make learning even harder, especially for those in indigenous and far-flung rural communities. The climate crisis doesn't just take away schooldays; it takes away our opportunities to learn.

*(Source: Statement of Filipino Children and Youth on Nationally Determined Contributions and Just Transition)*

### Box 4 Education: Sectoral overview and climate-environment-DRR impacts

#### Key sector highlights:<sup>150,151</sup>



The Philippines faces a learning crisis: as of 2019, **83 per cent of Grade 5 students did not meet minimum proficiency in mathematics, and 90 per cent in reading.**

Regional disparities are stark: in BARMM, **Grade 4 students** are estimated to be two years **behind the national average.**



**Senior high school dropout rates** are especially high, with BARMM (57.5 per cent), Region V – Bicol (73.5 per cent), and MIMAROPA (84.5 per cent) among the lowest performing. Rural areas (77.9 per cent) underperform compared to urban areas (88.3 per cent), and **boys are more likely to drop out than girls.**

Gaps in early childhood care and education: 78 per cent of 3–4-year-olds do not attend preschool, with low male caregiver involvement and weak early learning systems contributing to poor child development outcomes.

<sup>150</sup> UNICEF. 2024. Draft country programme document.

<sup>151</sup> *Children's Climate Risk Assessment: Philippines.*



Seventy per cent of public schools lack minimum WASH facilities, creating unsafe environments that are uncondusive to learning.

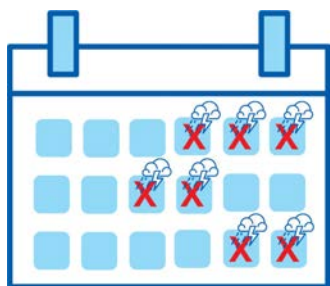


Governance challenges at the decentralized level, poor infrastructure, bullying (affecting 67.2 per cent of 16-year-olds), and teacher shortages contribute to low retention.



Schools are crucial for delivering disaster preparedness, climate education and behaviour change programmes—but their potential is undermined by systemic weaknesses.

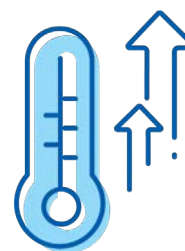
**Key climate, environment, and energy impacts on education:**



**Climate-related hazards disrupt classes**, resulting in an average of **32 schooldays lost in the 2023-2024 school year**, or nearly **18 per cent of the school year**.



**Climate and geophysical hazards** (typhoons, floods, earthquakes, heatwaves) affected **93 per cent of schools** between 2009 and 2019.



**Extreme heat leads to school closures**: in 2024, nearly **4,000 schools** closed due to temperatures exceeding **42°C**, shifting to remote modalities.



**Sea level rise and riverine and coastal flooding hinder safe access to schools**, especially in **island and low-lying communities**.

Students do not develop life skills critical for climate and disaster resilience due to **drop out**, weakening national adaptive capacity.

The **most vulnerable children**—those from **poorer households**, in **rural and hazard-prone areas**, and **younger age groups**—struggle the most to recover from learning losses and are **least equipped for distance learning**.



**Table 6. Education vulnerability indicators and data sources**

Indicator	Source	Institution	Year
Net enrolment rate in kindergarten	EBEIS	DepEd	School Year 2023-2024
Net enrolment rate in elementary	EBEIS	DepEd	SY 2023-2024
Net enrolment rate junior high school	EBEIS	DepEd	SY 2023-2024
Net enrolment rate senior high school	EBEIS	DepEd	SY 2023-2024
Percentage of children aged 24–59 months who are developmentally on track in health, learning and psychosocial well-being	National Demographic and Health Survey	PSA	2022
Basic literacy rate among children aged 10-19 years	Functional Literacy, Education and Mass Media Survey	PSA	2024
Functional literacy rate among children aged 10-19 years	Functional Literacy, Education and Mass Media Survey	PSA	2024

Climate change and disasters have long-term consequences on children’s learning outcomes and access to education. Schools—where children spend a significant portion of their time—are often vulnerable to a range of climate, disaster and environmental hazards, further impeding their ability to learn and thrive. As classes are suspended due to extreme weather events or schools are repurposed as evacuation centres, academic performance is disrupted, widening pre-existing education inequalities. Vulnerable students—such as those in rural or coastal areas, Indigenous communities or poor households—are disproportionately affected and may be forced to prioritize income generation or family support over schooling.

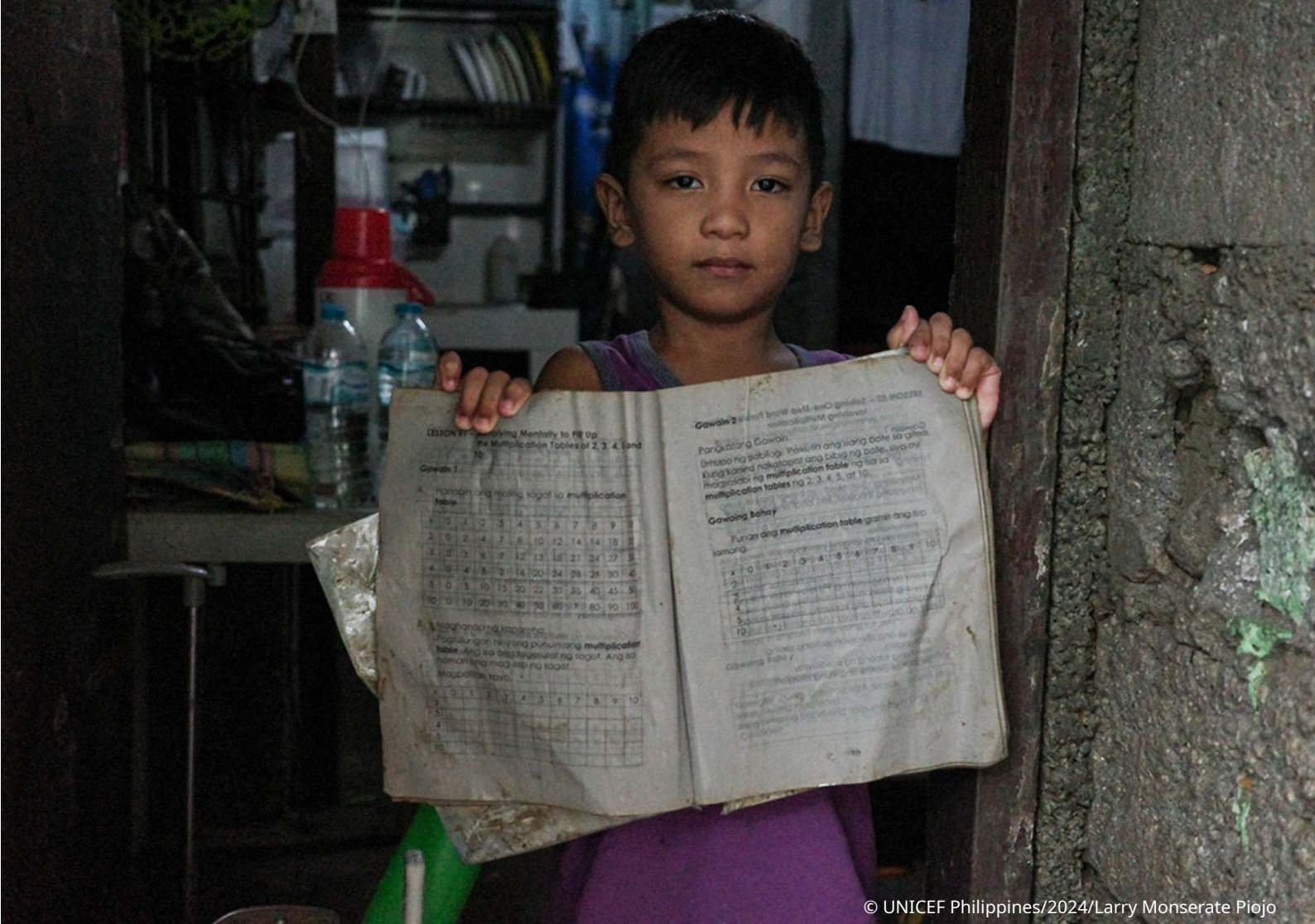
- 1. School and Child Development Centre (CDC) closures and loss of learning days due to typhoons, flooding and SLR and use of schools and CDCs as evacuation centres.** The safety and learning continuity of over 26 million Filipino students is increasingly jeopardized by stronger typhoons, intensified flooding, rising seas and extreme heat.<sup>152</sup> An average of 32 schooldays (15 per cent of the academic year) were lost in the 2023-2024 school year due to climate-related disruptions.<sup>153</sup> Typhoons and flooding are among the primary causes of class suspensions and school closures in the Philippines,<sup>154</sup> particularly in highly exposed regions like Bicol (especially Camarines Sur), MIMAROPA and Zamboanga Peninsula.<sup>155</sup> Schools are often converted into evacuation centres, while damage to infrastructure, disruption of transportation systems and impassable roads hinder access to educational facilities. In 2019, the Philippine government reported that of the 28,083 evacuation centres across the country, 63 per cent of

<sup>152</sup> ReliefWeb. 2024. "Heatwaves Pose Health Risks, Disrupt Students' Learning, Says Save the Children Philippines." April 5. <https://reliefweb.int/report/philippines/heatwaves-pose-health-risks-disrupt-students-learning-says-save-children-philippines>.

<sup>153</sup> Department of Education. 2024. "Class Disruptions Due to Storms Rise to 35 for the School Year." News release, November 13. <https://www.deped.gov.ph/2024/11/13/class-disruptions-due-to-storms-rise-to-35-for-the-school-year/>.

<sup>154</sup> UNICEF. 2024. *The Philippines Climate Impact on Education Situation Overview*.

<sup>155</sup> *Children's Climate Risk Assessment: Philippines*.



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Six year-old, Anthony Flestado, Jr., an incoming Grade 1 this school year shows his damaged book inside their home destroyed by flood in Bagong Silangan, Quezon City on July 25, 2024.

these are schools, including daycare centres and universities.<sup>156</sup> As a result, many children missed school, leading to learning disruptions and psychological stress due to learning unpredictability. Younger children struggle the most to catch up after prolonged absences. Furthermore, non-infrastructure items, such as furniture, learning materials, textbooks, and computers, are also destroyed affecting both in-school learning and home-based study.

#### Box 5. Climate change and disaster impacts in education sector 2009–2019

- **43,994 schools** (93 per cent) were **impacted by natural hazards such as typhoons, floods and extreme heat**
- **17,937 schools** were **converted into evacuation centres**
- **39,956 schools** were **affected by typhoons**
- **26,221 schools** were **affected by floods**
- **9,599 schools** were **affected by landslides**<sup>157</sup>

<sup>156</sup> Lacerna, Siegfred. 2023. "Why the Philippines Needs to Stop Using Schools as Evacuation Centers." *PhilStar Global*, January 30. <https://www.philstar.com/headlines/climate-and-environment/2023/01/30/2241342/why-philippines-needs-stop-using-schools-evacuation-centers>.

<sup>157</sup> Department of Education. n.d. Enhanced Basic Education Information System Hazard Exposure Data, school years 2009–2010 to 2018–2019.

2. **Increasing SLR threatens schools in coastal and inland areas.** The inundation of schools due to SLR presents a major challenge to students' education, especially in island and coastal communities. As sea levels continue to rise, flooding becomes more frequent, submerging school areas and making it difficult for students to reach their schools. Flooded roads and damaged infrastructure further limit access, making it difficult for students to attend school consistently. Entire school districts—including up to 100 schools in Camarines Sur alone—are directly exposed to storm surges and other hazards. These risks are critical in regions regularly affected by typhoons, such as Bicol and Eastern Visayas.<sup>158</sup>
3. **Extreme heat leading to school closures and reducing children's ability to learn.** Extreme heat plays a critical role in exacerbating the vulnerability of children and the education sector to climate change. Research has shown that every 0.56°C rise in school year temperature can reduce a student's learning by 1 per cent, especially in the absence of air-conditioning.<sup>159</sup> Heatwaves not only cause school closures but also significantly impact students' well-being, as young bodies are still developing and are not fully capable of regulating temperature.<sup>160</sup> In 2024, nearly 4,000 schools in the Philippines shifted to alternative delivery modes of learning due to extreme heat that exceeded 42°C, further disrupting children's learning. The extreme heat does not only affect students in school; it also hinders travel to and from school, especially for those who walk or commute.<sup>161</sup> Despite the shift to remote learning, this does not mitigate the challenges, as children without adequate resources or safe spaces at home struggle to keep up with their studies, especially for children in poorer households who lack access to cool, comfortable environments for studying.
4. **Structural vulnerabilities and learning environment gaps.** Many school buildings across the Philippines—particularly in rural or disaster-prone areas—do not meet safety standards set by the Department of Public Works and Highways and the Department of Education (DepEd). As of 2022, numerous schools still lacked reliable electricity and failed to meet WASH standards. These infrastructure gaps limit education continuity during emergencies and hinder schools' ability to act as safe havens during climate shocks. Most critically, regions such as MIMAROPA, Bicol and Zamboanga Peninsula exhibit the lowest education performance and highest dropout risks—fuelled by climate exposure, poverty and weak learning environments.
5. **Senior secondary dropouts threaten resilience and adaptive capacity.** A consistent trend of dropouts in the final years of secondary education is observed in multiple regions. Economic pressures and the legal working age are contributing factors. This is concerning, as these years are essential for acquiring life skills and climate-related knowledge. Regions with high vulnerability—like MIMAROPA and Zamboanga—report low attendance and poor performance, often correlated with exposure to dengue, floods, and other hazards.<sup>162</sup>
6. **Schools as agents of resilience.** Beyond infrastructure, the education system serves as a frontline of climate adaptation. Schools and teachers can foster behavioural change, disseminate climate and disaster knowledge, and build coping strategies among children and families. Formal and non-formal education must be integrated into climate response policies to build an informed generation capable of navigating and shaping a sustainable future.

<sup>158</sup> *Children's Climate Risk Assessment: Philippines.*

<sup>159</sup> Goodman J., Hurwitz, M., Park J., and Smith J., 2018. *Heat and Learning*

<sup>160</sup> UNICEF. 2023. *Protecting Children from Heat Stress A technical note.* May.

<sup>161</sup> ReliefWeb. 2024. "Heatwaves Pose Health Risks, Disrupt Students' Learning, Says Save the Children Philippines." April 5. <https://reliefweb.int/report/philippines/heatwaves-pose-health-risks-disrupt-students-learning-says-save-children-philippines>.

<sup>162</sup> *Children's Climate Risk Assessment: Philippines.*

## 3.5 Social protection

### “Children and Youth Voices

**The climate crisis deepens and worsens poverty.** Our families lose homes and livelihoods not just due to disasters, but also from projects like land reclamation and mining. We are not always able to participate in the planning and implementation of government programs, so they do not always address our needs. As climate impacts worsen, those without stable income or safety nets fall deeper into poverty and putting us at even greater risk.

(Source: Statement of Filipino Children and Youth on Nationally Determined Contributions and Just Transition)

### Box 6 Social Protection: Sectoral overview and climate-environment-DRR impacts

**Key sector highlights:**<sup>163,164</sup>



**Children living in poverty remains high with 9.3 million poor children** (23.4 per cent). Among basic sectors, **Indigenous peoples have the highest poverty incidence at 32.4 per cent** (twice the national average), with possibly devastating effects in terms of climatic hazards and exposures.



The Philippines has one of the **highest inequality indexes at 40.7 per cent** in the region, and this inequality may be further exacerbated by socioeconomic and climatic shocks resulting to deprivations in other dimensions of well-being.

#### **Social protection as a climate resilience backbone:**

The Philippines' social protection system—anchored by programmes like the *Pantawid Pamilyang Pilipino Program* (4Ps)—serves as a vital adaptive mechanism, enhancing the ability of low-income families to absorb and recover from climate-related shocks, and build household resilience in the long term.

**Escalating system pressures:** The increasing frequency of high-category typhoons and other disasters is intensifying demand for social protection services, potentially overwhelming capacity and delaying recovery if not systematically reinforced.

**Geographic and systemic inequities:** Regions like Northern Mindanao face multiple compounding threats (floods, storm surges, heat) while gaps persist in birth registration, caregiver support and the integration of mental health within disaster risk reduction frameworks. And certain groups of people such as children and Indigenous peoples are more likely to be pushed into deeper poverty because of exposure to climatic hazards.

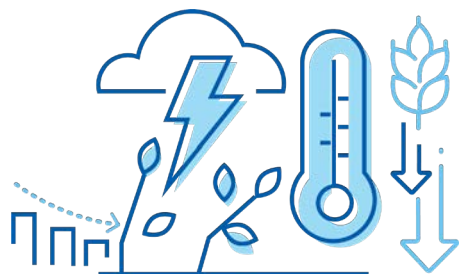
<sup>163</sup> UNICEF. 2024. Draft country programme document

<sup>164</sup> *Children's Climate Risk Assessment: Philippines.*

### Key climate, environmental, and energy impacts on social protection:

Climate change intensifies poverty and inequality, disproportionately affecting the 5.6 million low-income households across the Philippines and deepening social and economic vulnerabilities.

Progress from social protection programmes is undermined by climate-related disasters, which destroy livelihoods, deplete assets and reverse poverty reduction gains.



Vulnerable groups—including indigenous children, children with disabilities and those on the move—face multiple and intersecting disadvantages in accessing support and resources, which are further exacerbated by climate-induced shocks.

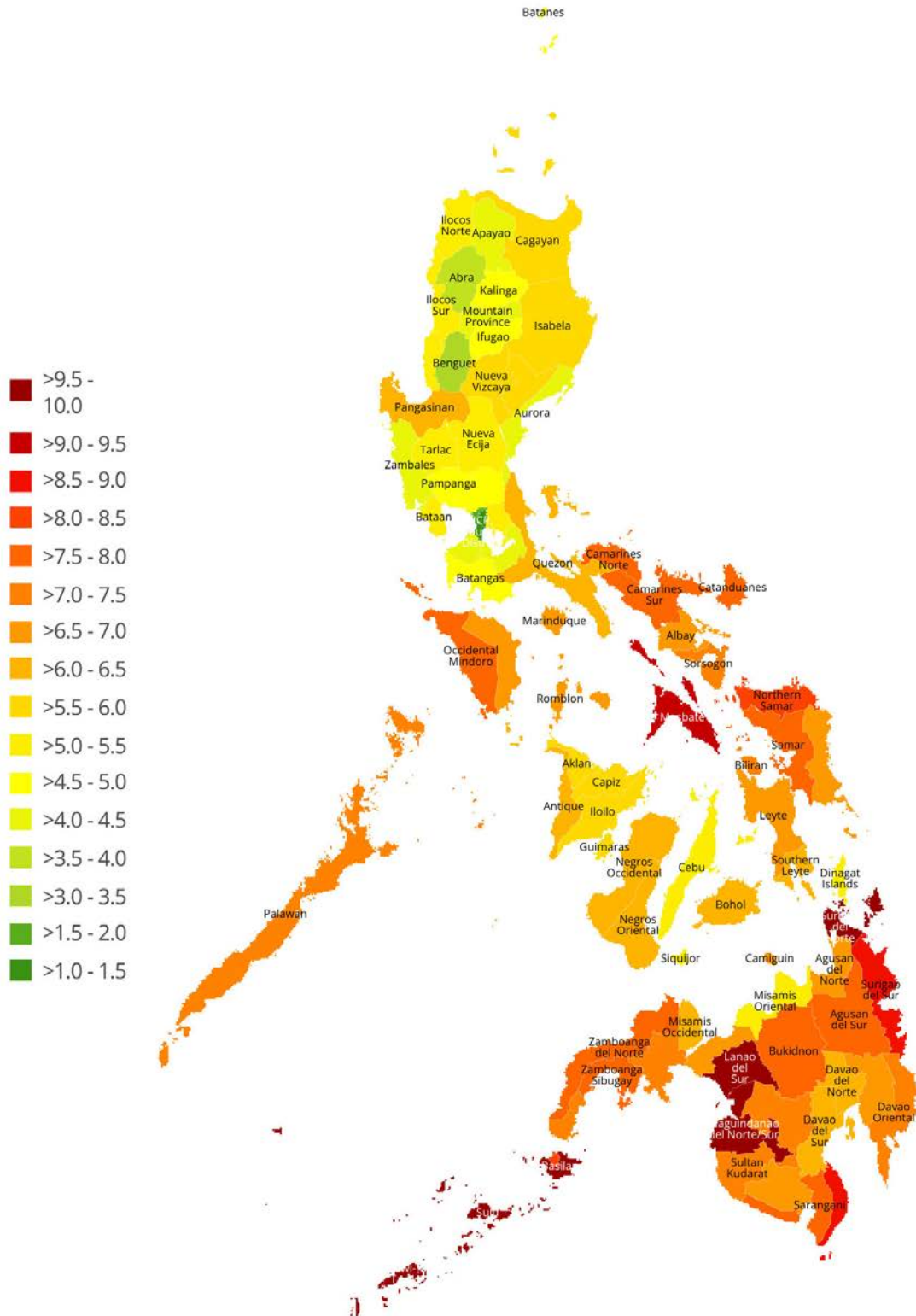
Families with high child dependency ratios are less able to respond to climate emergencies due to financial and caregiving constraints, affecting children's protection and well-being.

Rising frequency of disasters increases demand for social assistance and public finance, placing sustained pressure on social protection systems and risking service delivery shortfalls if not adapted to evolving climate risks.



UNICEF created a composite index of poverty data using national data sets. All indicators used are shown in Table 6 and were normalized to a common scale (1–10), with higher values indicating greater risk. The results are combined with other indicators of child vulnerability and used to develop the UNICEF CCRI (see Section 3.9).

**Figure 9: Poverty index by province**



**Table 7. Poverty indicators and data sources**

Indicator	Source	Institution	Year
Poverty incidence among children	Official poverty statistics by basic sector	PSA	2023
Child dependency ratio	Census of population and housing	PSA	2020

Social protection systems are a critical lifeline for vulnerable children and families in the Philippines. As climate and environmental shocks become more frequent and severe, these systems are increasingly strained. Effective, inclusive, and adaptive social protection is essential not only to reduce poverty and inequality but also to safeguard children from cascading risks—ranging from income loss and displacement to health shocks and educational disruptions. However, gaps in coverage, data and service delivery capacity limit their responsiveness. Children without official documentation, such as birth registration, often face challenges in accessing assistance. Families with high child dependency ratios—more dependents per working adult— and those solo-parent headed households are especially constrained in their ability to adapt and recover from climate-related disasters.

1. **Growing inequality.** Climate change exacerbates existing social and economic disparities, disproportionately affecting marginalized communities and further widening the gap between the rich and the poor. This is particularly true for children in low-income households, whose tenuous conditions are worsened by climate-related shocks. Climate change and disasters not only deepen their suffering but also impede the progress made through social protection interventions aimed at alleviating poverty and promoting well-being. For children without birth registration or residing in remote areas, access to social protection and emergency aid becomes even more challenging, especially in the aftermath of disasters.
2. **Deepening poverty.** In the Philippines, the effects of climate change will hit the approximately 5.6 million low-income households the hardest.<sup>165</sup> Climate change has the potential to push vulnerable families into deeper poverty or even force those hovering near the poverty line below it. Lack of resources, limited protection and the destruction of homes, livelihoods and assets will entrench these families and their children into cycles of poverty and inequality, making it harder for them to recover and adapt. For children, this means a higher risk of disrupted education, poor health and diminished prospects, perpetuating generational poverty. Regions with higher child dependency ratios and higher population of Indigenous peoples may face additional barriers in implementing DRR strategies, limiting mobility and the capacity to cope.

<sup>165</sup> Save the Children Philippines. 2023. "Save the Children PH Says Climate Disasters Affect Children, 5.6M Poor Families." ReliefWeb, June 9. <https://reliefweb.int/report/philippines/save-children-ph-says-climate-disasters-affect-children-56m-poor-families>.

**3. Disproportionate social policy-related impacts of climate change on vulnerable groups.**

Climate change worsens the vulnerabilities faced by specific groups, such as children with disabilities, indigenous communities and children on the move. These groups already experience greater challenges in terms of access to resources, protection, and support and climate change only adds to these burdens. However, these intersecting vulnerabilities are often underreported or undocumented, further marginalizing them in policy discussions and adaptation strategies. Targeted programmes such as the 4Ps, the country's flagship social protection scheme, are vital in supporting the poorest families and their children. Mapping of 4Ps coverage reveals areas where safety nets are effective and others where additional investments are needed to bolster resilience to climate shocks.

**4. Geographic vulnerabilities.** While most of the Philippines falls within a mid-range category in terms of social protection vulnerability, some regions stand out. Northern Mindanao is particularly exposed due to compound risks including riverine flooding in the south and storm surge exposure in the north, such as in Gingoog City. Rising temperatures and increasing heat index levels across the country further heighten risks, placing additional burdens on families already struggling to meet basic needs. These patterns underscore the need for climate-adaptive social policies tailored to regional risk profiles.<sup>166</sup>

**5. Data gaps.** A critical limitation remains the lack of data on the state and capacity of social protection infrastructure—especially mental health services, which are crucial for child well-being during and after climate disasters. Additionally, limited indicators on the quality of service delivery, decentralized response capacity, and infrastructure resilience hinder efforts to fully understand and address the operational needs of the social protection system.

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<sup>166</sup> *Children's Climate Risk Assessment: Philippines.*

## 3.6 Child protection

### Children and Youth Voices

**We are at risk of violence, exploitation and neglect.**

During disasters and in evacuation centres, we often feel unsafe physically and psychosocially—especially girls and women. There are not enough safe spaces, services, facilities, information and supervision. Some of us are forced into dangerous work to help our families survive. We are often unable to participate in processes that affect our safety, security and welfare.

*(Source: Statement of Filipino Children and Youth on Nationally Determined Contributions and Just Transition)*

### Box 7 Child Protection: Sectoral overview and climate-environment-DRR impacts

#### Key sector highlights:<sup>167,168</sup>



Nearly **59 per cent of children** in the Philippines have experienced some form of violence, with **1 in 5 subjected to online sexual abuse or exploitation**.



**Boys are equally vulnerable to violence** but tend to **report incidents less frequently** due to cultural and social norms.



Between 1 January 2022 and 31 December 2023, the country task force verified **58 grave violations against 43 children** (33 boys, 10 girls). Some 53 per cent of the total number of violations occurred in Mindanao, which remained the most affected region, mostly because of the presence of all armed groups in that geographical area.<sup>169</sup>



There were **13,000 children in conflict with the law** from 2012 to 2021, with many facing prolonged detention, sometimes alongside adults.

<sup>167</sup> UNICEF. 2024. Draft country programme document.

<sup>168</sup> *Children's Climate Risk Assessment: Philippines*.

<sup>169</sup> UN Security Council. 2024. Children and armed conflict in the Philippines. Report of the Secretary General. September 23. <https://docs.un.org/en/S/2024/626>.



The **child marriage** rate has **decreased to 9.4 per cent**, yet **460,221 young women aged 20–24 were married before the age of 15**—often linked to **teenage pregnancy**.



While **96.6 per cent of the national population had their births registered** in 2020, only **77 per cent are registered in the BARMM**, limiting access to protection services.

The child protection system is hampered by a weak accountability framework, limited and inequitable investments, fragmented information systems and technical capacity gaps.

Social, cultural and gender norms continue to drive violence, neglect and harmful practices, affecting both boys and girls across all regions.

### Key climate, environmental, and energy impacts on child protection:



Family and parental violence increases under the psychological and financial strain brought by climate-related disasters, intensifying risks to children.



Harmful coping mechanisms, such as early marriage and child labour, become more prevalent during periods of climate-induced economic distress.



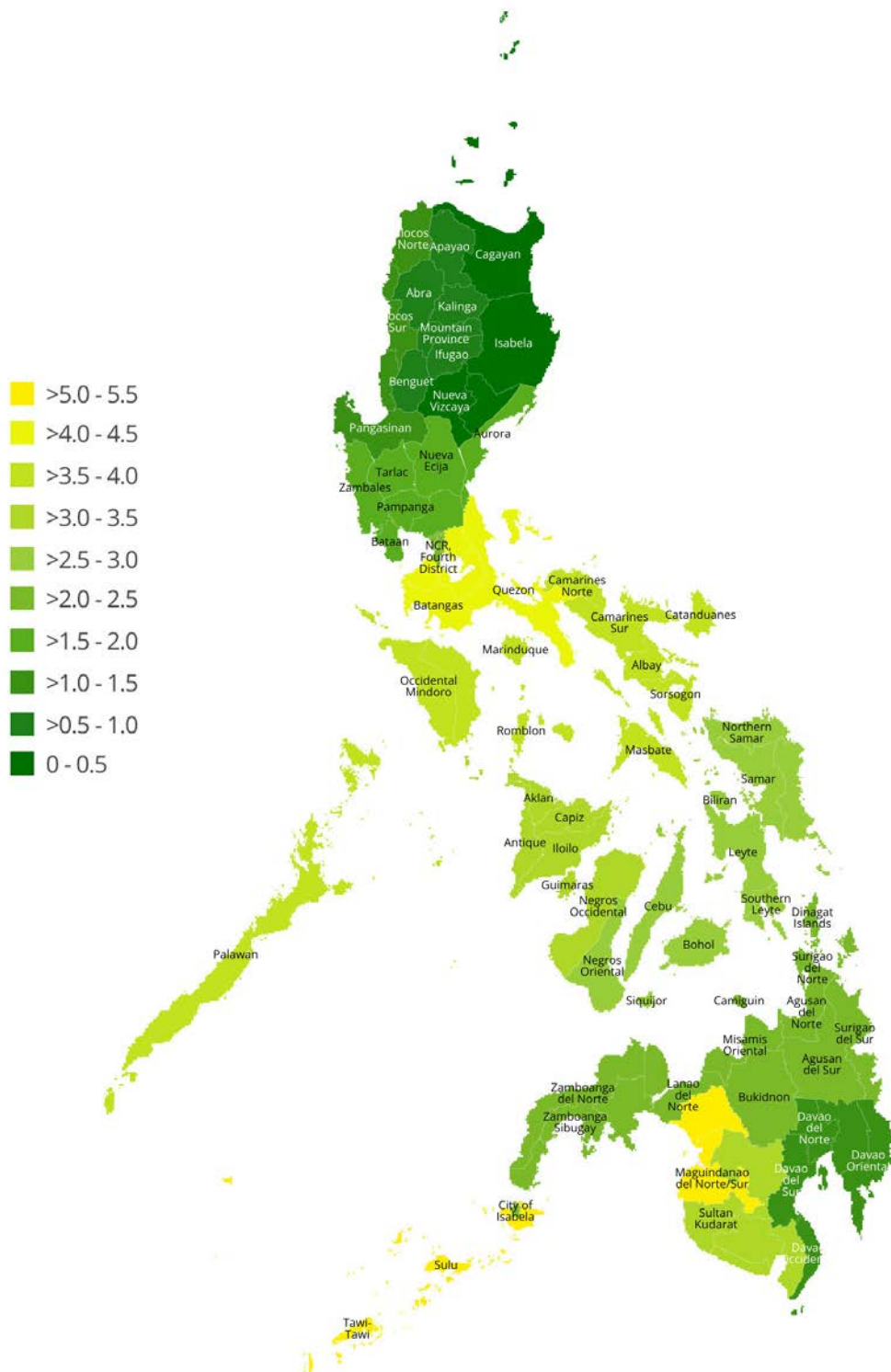
Displacement and migration caused by typhoons, floods, drought and sea-level rise lead to family separation, heightening the risk of gender-based violence, trafficking and psychosocial trauma among children.



Children with disabilities, those from indigenous communities, economically disadvantaged backgrounds or marginalized groups face systemic discrimination and greater barriers to accessing support during and after climate events.

UNICEF created a composite index of child protection vulnerability using national data sets. All indicators used are shown in Table 8 and were normalized to a common scale (1–10), with higher values indicating greater risk. The results are combined with other indicators of child vulnerability and used to develop the UNICEF CCRI (see Section 3.9).

**Figure 10: Child protection vulnerability index by province**



**Table 8. Child protection vulnerability indicators and data sources**

Indicator	Source	Institution	Year
Proportion of children aged under five years whose births have been registered with a civil authority	National Demographic and Health Survey	PSA	2022
Percentage of children aged 1–14 years who experienced discipline (Any violent discipline)	National Demographic and Health Survey	PSA	2022
Proportion of working children aged 5–17 years engaged in child labour	Labor Force Survey	PSA	2022

Climate change is disrupting, overwhelming and undermining child protection systems in the Philippines. Yet, despite the growing frequency and severity of climate-related hazards, child protection continues to be largely excluded from investments in resilience-building and adaptation. Both sudden-onset and slow-onset climate disasters—such as typhoons, flooding, drought and sea-level rise—contribute to displacement, family separation, and weakened community resilience, increasing children's exposure to violence, exploitation, abuse and harmful practices. These risks highlight the importance of implementing systemic interventions under the Child Protection Systems Strengthening Strategy—such as functional referral pathways, data systems interoperability, and capacity development of local government units (LGUs)—to ensure continuity of services before, during and after climate shocks.

- 1. Exacerbated exposure to violence.** Children are particularly vulnerable to the effects of climate change and disasters, as they lack the capacity to safeguard their own safety and well-being. A study conducted by UNICEF and the United Nations Population Fund in the Philippines revealed that family violence, parental violence and children witnessing violence are exacerbated by the stress and strain families experience during natural disasters.<sup>170</sup>
- 2. Rise in harmful coping mechanisms, including child labour and early marriage.** Climate shocks such as droughts and typhoons exacerbate economic hardship, pushing families to adopt negative coping strategies. Children are pulled out of school to help with income generation or domestic chores. Many are drawn into agricultural labour, especially in rural areas already affected by climate-induced crop failures. Others are subjected to early marriage as a coping mechanism in economically distressed households. The agriculture sector already accounts for 71 per cent of all child labour globally—a figure expected to rise with increased climate disruptions. Children without legal identity or birth registration are particularly vulnerable, as they face additional barriers to protection and legal recourse.<sup>171</sup>
- 3. Increasing displacement and migration.** Displacement due to SLR, flooding and other climate events has become more frequent and prolonged. Children displaced by disasters are at heightened risk of separation from their families, trafficking or abuse. Many are forced to relocate to areas equally or more exposed to climate hazards. In such settings, the breakdown of child protection services—combined with insufficient shelter, legal safeguards or psychosocial

<sup>170</sup> UNFPA, UNICEF, UNWomen. 2020. *Ending Violence against Women and Children in the Philippines*.

<sup>171</sup> UNICEF. 2021. *Healthy Environments for Healthy Children: Global Programme Framework*. New York: UNICEF.

support—amplifies the risks they face. Children with disabilities are especially at risk due to mobility and communication barriers, which may cut them off from access to critical services and support during emergencies.

- 4. Reduced access to child protection services.** Climate disasters can severely disrupt child protection systems by damaging public infrastructure, hindering mobility and straining already limited social services. Remote or marginalized communities, including those in GIDAs, often experience the collapse or prolonged disruption of case management, community outreach and legal and social work services. In the absence of timely, accessible child protection interventions, children's exposure to violence, neglect or institutionalization may rise.
- 5. Mental health and psychosocial impacts.** Beyond physical risks, the psychological effects of climate change on children are profound. Children exposed to environmental shocks, displacement, or family separation may experience trauma, anxiety or post-traumatic stress disorder. These impacts are particularly acute for children who endure repeated climate-induced displacement or who live in communities facing chronic food and water insecurity. Girls and gender-nonconforming children may face stigma or discrimination, compounding mental health risks and excluding them from access to safe spaces and support services.
- 6. Gender-specific and intersectional risks.** Girls face unique and intensified vulnerabilities during climate-related events. In drought-affected areas, they are often tasked with collecting water, increasing their exposure to environmental hazards and gender-based violence. Their school attendance also tends to decline more sharply than boys' as caregiving responsibilities grow. Gender-nonconforming children and children with disabilities face additional risks, including exclusion from evacuation centres and shelters, where services may not be inclusive or safe. Their intersecting identities often go unrecognized in mainstream disaster risk management (DRM) and climate adaptation responses.



### 3.7 Cross-cutting issues: Gender and adolescent development and participation

#### Box 8 Highlights – climate, environment and DRR impacts on gender and adolescent development



There were **numerous reports of sexual violence and exploitation of girls, women and children** during the aftermath of Super Typhoon Yolanda (Haiyan) in 2013.

Adolescents, especially girls, are often **more exposed to violence and exploitation in crowded, disorganized evacuation centres.**

Adolescent girls **require reliable access to water for menstrual hygiene management** however droughts, saltwater intrusion and sea level rise threaten water availability.



1. **Heightened risks facing girls and children from LGBTQIA communities.** Climate change is not gender-neutral. Its impacts are often more severe for girls, who face unique physiological needs and have fewer opportunities to cope. In the wake of disasters, girls, who are disproportionately affected by poverty, can be pulled out of school, forced into early marriage, trafficked or sexually assaulted.<sup>172,173</sup> Following Super Typhoon Yolanda (Haiyan) in the Philippines in 2013, there were numerous reports of sexual violence and exploitation of girls, women and children during its aftermath. Children from LGBTQIA communities are also at increased risk, facing exclusion, violence and exploitation due to pervasive social stigma, discrimination and hatred, issues that climate change exacerbates, further marginalizing them during crises.
2. **Adolescents face greater physical and mental risks.** In addition to gender-based vulnerabilities, adolescents are particularly susceptible to climate impacts as they are still in a stage of physical and mental development. Their changing bodies, hormones, bones and reproductive systems, make them more vulnerable to physical harm, and their developing minds can be heavily impacted by climate-related stress. For example, female adolescents require reliable access to water for menstrual hygiene management. However, droughts, saltwater intrusion and SLR threaten water availability, impeding their ability to care for their health.
3. **Adolescents face risk of violence in evacuation centres.** Adolescents are often more exposed to violence and exploitation in crowded, disorganized evacuation centres, where safety is a significant concern. In these environments, particularly for adolescent girls, lack of privacy and security can lead to increased risks of gender-based violence.

<sup>172</sup> Joshi, M., Rees, N., and Gaya, S. 2023. *Over the Climate Tipping Point*. UNICEF. May.

<sup>173</sup> Healthy Environments for Healthy Children: Global Programme Framework.

4. **Disruption to adolescents' education.** Last, climate impacts also disrupt adolescents' education, which could further hinder their development and prospects. Disasters, whether rapid or slow-onset, force interruptions in schooling, making it harder for adolescents to access quality education and ultimately limiting their opportunities for growth and success (see Section 3.4 - Education).

## 3.8 Disability

### Box 9 Highlights – climate, environment and DRR impact on disability



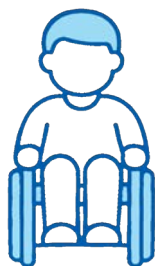
As of 2020, **1.4 per cent of children and adolescents aged 5-19** had at least **one domain of functional difficulty**.

In disaster situations, people with disabilities are also four times more likely to die than those without disabilities.



Only **one in four people with disabilities can easily follow evacuation instructions**, and only **11 per cent are aware of disaster management plans** in their communities.

**75 per cent of people with disabilities** report feeling **excluded from humanitarian responses**.



**People with disabilities are three times more likely to be denied access to healthcare** than their non-disabled peers and this is **exacerbated by climate change, which reduces access to essential services**.

Climate change significantly affects people with disabilities, particularly children. Their vulnerability is further compounded by factors such as poverty, gender, ethnicity, geography, age and religion, which collectively contribute to their marginalization.<sup>174</sup> In the Philippines, the severe disability prevalence in 2016 was 12 per cent with almost every second person experiences moderate level of disability at 47 per cent.<sup>175</sup> Families with children who have disabilities face significantly higher living costs, spending 40-80 per cent more compared to other households. These children often experience discrimination, stereotyping, and bullying and face barriers to accessing special education, particularly in rural areas where resources and support services are limited.<sup>176</sup> Globally, 75 per cent of people with disabilities report feeling excluded from humanitarian responses.<sup>177</sup> This exclusion often leads to their healthcare and livelihood needs being overlooked, making it harder for them to recover from both the health and economic impacts of climate change.<sup>178</sup>

1. **People with disability disproportionately impacted by climate disasters.** In disaster situations, people with disabilities are also four times more likely to die than those without disabilities. This heightened risk stems from several factors, including being left behind during emergencies, having limited access to climate-related emergency services, and receiving insufficient support from family, friends and communities. The physical challenges associated with disabilities, such as reliance on mobility aids, eyeglasses or other specialized equipment, make evacuation particularly difficult.
2. **Disaster preparedness planning and facilities are not disability inclusive.** Many individuals with disabilities may not be able to protect themselves from injuries or illnesses due to a lack of awareness about disaster preparedness, the absence of personal preparedness plans, or limited access to early warning systems. Only one in four people with disabilities can easily follow evacuation instructions, and only 11 per cent are aware of disaster management plans in their communities.<sup>179</sup> Moreover, emergency shelters frequently fail to meet the essential needs of people with disabilities and its structural barriers often hinder accessibility, further exacerbating the situation. At evacuation centres, people with disabilities are particularly susceptible to violence, exploitation and abuse, with female adolescents with disabilities being at even higher risk.
3. **Climate hazards exacerbate limited access to essential services for people with disabilities.** People with disabilities are three times more likely to be denied access to healthcare than their non-disabled peers. As a result, people with disabilities often have a life expectancy that is 10 to 20 years shorter than others.<sup>180</sup> This is exacerbated by climate change, which increases discrimination and limits access to essential services. The disruption of services, combined with their lack of access to nutritious food, clean water, WASH facilities, safe shelter and healthcare makes people with disabilities more vulnerable to impacts of climate change and disasters.

<sup>174</sup> Geneva Centre for Human Rights Advancement and Global Dialogue. 44th Session of the Human Rights Council. Panel Discussion on Climate Change and Human Rights with the theme "Promoting and Protecting the Rights of Persons with Disabilities in the Context of Climate Change". 8 July 2020. <https://gchragd.org/wp-content/uploads/2020/11/2020.07.08.-Panel-Discussion-Climate-Change-and-Rights-of-People-with-Disabilities.pdf>

<sup>175</sup> Results on 2016 National Disability Prevalence Survey (NDPS) or Model Functioning Survey (MFS) Conveyed | PSA -Central Visayas

<sup>176</sup> Dr-Luna-Narido, Soledad and Tacadao, Miraluna. 2021. *A Study on Employment Profile of Persons with Disabilities (PWDs) in Selected Regions in the Philippines*. Institute of Labor Studies. Jan 28. <https://ils.dole.gov.ph/employment/2016-employment/a-study-on-employment-profile-of-persons-with-disabilities-pwds-in-selected-regions-in-the-philippines#:~:text=In%20the%20Philippines%2C%20of%20the,utmost%20attention%20from%20the%20government.>

<sup>177</sup> Handicap International. 2016. Disability in humanitarian context.

<sup>178</sup> United Nations Office for Disaster Risk Reduction (UNDRR). 2023. *2023 Global Survey Report on Persons with Disabilities and Disasters*. Geneva: UNDRR.

<sup>179</sup> Ibid.

<sup>180</sup> World Health Organization (WHO). 2023. "Disability and Health: Key Facts." March 7. [https://www.who.int/news-room/fact-sheets/detail/disability-and-health.](https://www.who.int/news-room/fact-sheets/detail/disability-and-health)

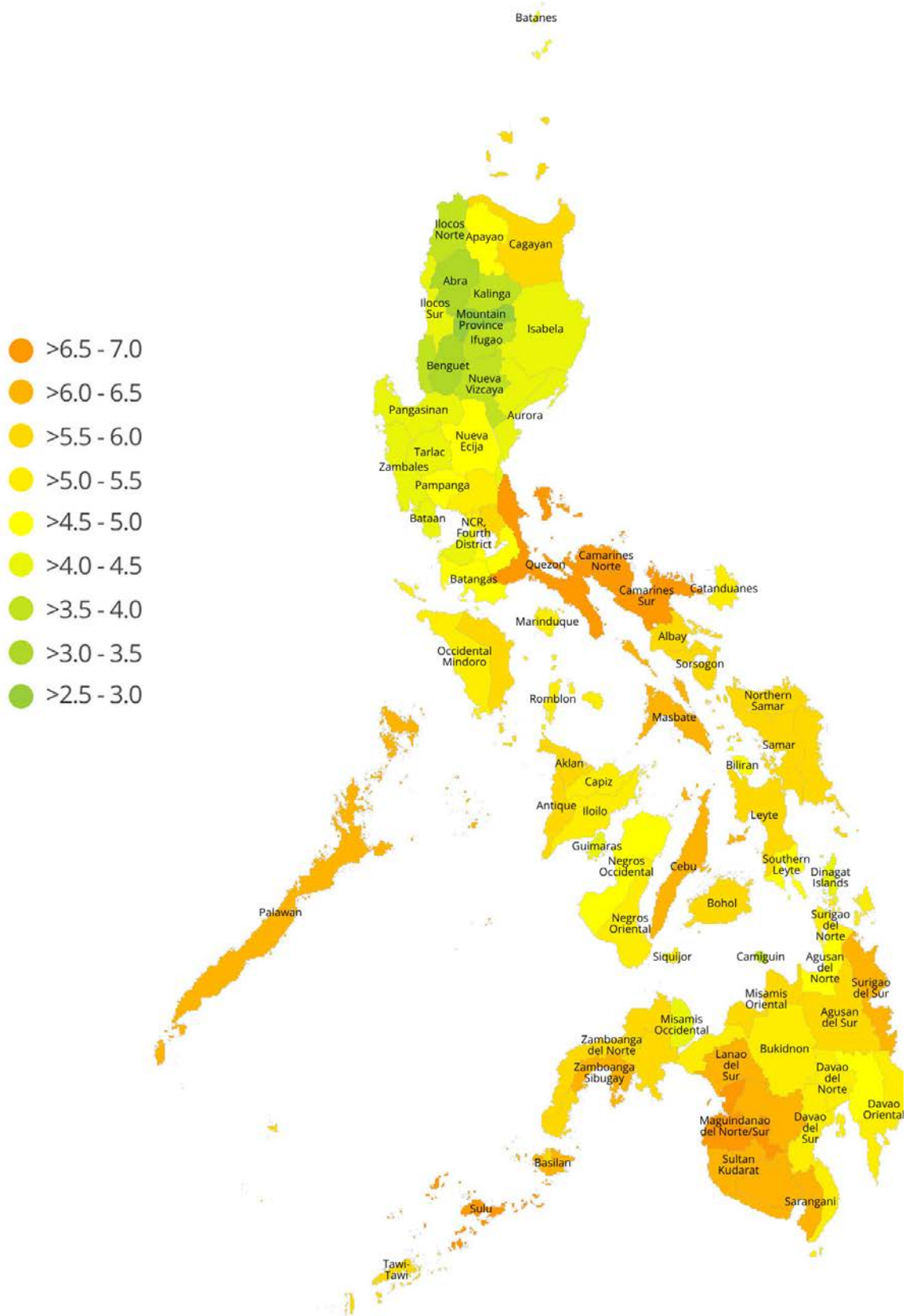
### 3.9 The children's climate risk index

The Philippines' vulnerability to climate hazards and disasters severely impacts its most at-risk populations, particularly the younger generation and the ability of children to access essential services. In the UNICEF CCRI, the Philippines ranks 31st out of 163 nations, showing the extremely high risk that children face due to climate change. Where higher scores indicate the most risk, exposure of children in the Philippines to climate and environmental hazards was found to be extremely high, scoring 8.9 out of 10, the 6th highest score globally. Children in Philippines are also vulnerable to climate and environmental hazards (scoring 4.0 out of 10), leading to an overall CCRI score of 7.1 out of 10.

UNICEF Philippines used a similar methodology to determine the provinces most at risk based on (1) hazard exposure and (2) social and infrastructure vulnerabilities. The assessment used hazard data from the previous section (heatwaves, extreme heat, droughts, wind speed, floods, fine particulate matter, and vector-borne diseases) using internationally recognized data sets (e.g., ERA5, GPCP, STORM, NASA remote sensing and national sources like the Nationwide Operational Assessment of Hazards). These indicators are calculated at high spatial resolution and are normalized and aggregated to reflect the proportion of children exposed, using official census data for population estimates. The methodology also incorporates climate model projections (CMIP6) to estimate future risks under different scenarios. Second, UNICEF assessed vulnerabilities across sectors critical to children's well-being, including healthcare (immunization, nutrition, maternal health), education, WASH and social and child protection. Data sources include government statistics, demographic and health surveys, WHO and UNICEF databases. All indicators are normalized to a common scale (1–10, with higher values indicating greater risk), and composite indexes are generated through a transparent aggregation strategy. The final output is a composite CCRI, enabling targeted, evidence-based interventions and policy planning at the regional and local levels. The provinces were ranked based on their risk, with the most at-risk provinces and their dominant risk drivers as follows:

- **Palawan, MIMAROPA:** Drought, High Wind Speed, Child/Maternal Health and Nutrition, WASH
- **Camarines Norte, Bicol:** Drought, Heat, High Wind Speed, (Child Nutrition), WASH, Educational Performance, Poverty and Dependency
- **Camarines Sur, Bicol:** Heat, Riverine Floods, Storm Surge, High Wind Speed, Air Pollution, (Child Nutrition), WASH, Educational Performance, Poverty and Dependency
- **Quezon, CALABARZON:** Drought, Heat, Riverine Floods, High Wind Speed, Air Pollution, Child/Maternal Health and Nutrition, Educational Performance, Vulnerable Children
- **Maguindanao del Sur, BARMM:** Drought, Child/Maternal Health and Nutrition, WASH, Education, Livelihoods/Social Protection
- **Maguindanao del Norte, BARMM:** Drought, Riverine Floods, Child/Maternal Health and Nutrition, WASH, Education, Livelihoods/Social Protection
- **Special Geographic Areas (SGA), BARMM:** Drought, Riverine Floods, Child/Maternal Health and Nutrition, WASH, Education, Livelihoods/Social Protection
- **Sulu, Zamboanga Peninsula:** Drought, Child/Maternal Health and Nutrition, WASH, Education, Livelihoods/Social Protection

Figure 11: Children’s climate risk index



# 4 Government action on climate, environment and DRR issues



## At a glance

This chapter summarizes the government responses to climate, environment and DRR issues. The first section looks at the main government policies relating to climate, environment and DRR and children and youth issues.

The Philippines has comprehensive national climate and DRR policies that integrate climate change into governance and protecting vulnerable groups, including children.

- The Nationally Determined Contributions (NDCs) 2020-2030, NDC Implementation Plan 2023-2030, and the National Adaptation Plan (NAP) 2023-2050 show strong commitment to both reduce emissions and adapt to the impacts of climate change.
- While the first Philippines NDC submitted in 2021 references children and youth and recognizes human rights, it could be strengthened with child-sensitive commitments and indicators across health, education, WASH, child protection and social protection. The second NDCs is under development.
- The NAP prioritizes health, food system, water resources and migration. While not a priority adaptation area, the NAP integrates education as a cross-cutting enabler for climate resilience. The NAP prioritizes the needs of children and other vulnerable groups in adaptation planning, calling for inclusion and protection.
- The BARMM has initiated climate and DRR mainstreaming, but there are gaps in the policy framework, and capacity and funding gaps persist.

The second section examines child-focused sectors supported by UNICEF and examines the government policy response and main government initiatives in these sectors. Key findings include:

- Key policies in all sectors recognize and address climate, environment and DRR issues and a significant number of initiatives are under way to address the impacts on children. Sectoral plans have the highest integration of DRR and are still strengthening integration of climate change adaptation, particularly to slow-onset changes.
- People's Survival Fund exists for local adaptation, but very little funding is directed from the PSF and from development partners towards adaptation in NAP priority social services like health and water supply and sanitation and cross-cutting strategies like education.
- The government has adopted Climate Change Expenditure Tagging (CCET) to assess and align its resource allocation with the seven strategic priorities and cross-cutting strategies. While implementation is widespread, LGUs often lack the technical capacity to implement CCET effectively and there is limited use of CCET in local budget and expenditure analysis.
- Key gaps include limited operational guidance, inadequate financing and weak child and youth participation mechanisms.

## 4.1 National climate, environment and disaster risk reduction policies and strategies

The Government of Philippines has a robust framework of national policies, strategies and plans related to climate, environment and DRR and children and youth. The Climate Change Act of 2009 (Republic Act (RA) No. 9729) mainstreamed climate change considerations into national and local governance policies, programmes and processes. This law established the Philippine CCC, the lead policymaking body responsible for coordinating, monitoring and evaluating the country's climate efforts. Additionally, the act required LGUs to develop their own Local Climate Change Action Plans (LCCAPs). As of July 2023, 1,472 LCCAPs, representing 86 per cent of all LGUs, have been submitted to the CCC.<sup>181</sup>

The Philippines has submitted both NDC 2020-2030 and a NAP 2023-2050 to the UNFCCC, showing strong commitment to both reduce emissions and adapt to the impacts of climate change. The National Framework Strategy on Climate Change 2010-2022, served as the original foundation for climate programmes designed to protect vulnerable groups, including the poor, women, children and marginalized sectors.<sup>182</sup> The National Climate Change Action Plan (NCCAP) 2011-2028 was also prepared to outline adaptation and mitigation strategies.<sup>183</sup> The Department of Environment and Natural Resources (DENR) has institutionalized climate and disaster risk integration through Department Administrative Order No. 2021-22, which provides guidelines for mainstreaming climate change adaptation (CCA), DRR, and environmental management in all DENR programs and activities. Through this framework, the DENR implements ecosystem-based and nature-based solutions to protect watersheds, coasts, and forests that underpin children's health, nutrition, and safety.

### National Adaptation Plan 2023-2050

The NAP outlines medium- and long-term strategies for climate change adaptation, with a focus on eight key sectors: (i) Agriculture, Fisheries and Food Security; (ii) Water Resources; (iii) Health; (iv) Ecosystems and Biodiversity; (v) Cultural Heritage, Population Displacement and Migration; (vi) Land Use and Human Settlements; (vii) Livelihoods and Industries; and (viii) Energy, Transport and Communications. In addition to sector-specific strategies, the NAP also identifies five thematic and cross-sectoral adaptation strategies to address the intersecting challenges posed by climate change. These strategies include: (i) strengthening infrastructure resilience, (ii) safeguarding livelihoods, (iii) empowering local governments and communities, (iv) mainstreaming integrated adaptation governance, and (v) scaling up nature-based solutions. The NAP also identifies ecosystems and natural resources management as foundational systems for adaptation, implemented through the DENR's Green Assessment and Recovery Framework and Risk Resiliency Program. The policy framework has good integration of child rights and social services overall. Annex A climate, environment and DRR and child and youth policies and strategies provides a brief synopsis of each of these policy documents.

<sup>181</sup> Climate Change Commission. 2025. *Local Climate Change Action Plan*. <https://niccdies.climate.gov.ph/action-plans/local-climate-change-action-plan>.

<sup>182</sup> Climate Change Commission. 2010. *National Framework Strategy on Climate Change 2010-2022*. Pasig: CCC.

<sup>183</sup> Climate Change Commission. 2011. *National Climate Change Action Plan 2011-2028*. Pasig: CCC.

**Table 9. Summary of child-focused social sectors in the National Adaptation Plan (2023-2030)**

Child rights dimension	Level of integration in the NAP
<b>Health</b>	Health is one of the eight priority adaptation areas in the NAP. The NAP demonstrates a strong and multidimensional integration of child health through priorities such as scaling up community-based programmes for prevention and control of climate-sensitive diseases, including vaccination (Section 4.2.3, Outcome 1, p. 191). The NAP also includes actions to strengthen health systems and infrastructure to ensure equitable access to care for children, especially in climate-vulnerable and disadvantaged areas (Section 4.2.3, Outcome 2, p. 192). Data systems, early warning, and health worker training are prioritized to support anticipatory action and informed decision-making for health sector adaptation (Section 4.2.3, Outcome 3, p. 187).
<b>Nutrition</b>	Nutrition is captured under two priority adaptation areas: health, and agriculture, fisheries and food security. The NAP prioritizes climate-resilient food systems by promoting crop diversification, sustainable farming, support for smallholder farmers and fisherfolk and improved soil and water management to ensure the availability of nutritious foods for children even under climate stress (Section 4.2.1, pp. 167–169). 170–171). In the health sector, the NAP identifies community-based programmes to protect vulnerable populations from malnutrition and related health risks (Section 4.2.3, pp. 186, 191).
<b>Water and Sanitation</b>	Water resources is a priority sector in the NAP, and WASH priorities are integrated across the three sectors: water resources, health and infrastructure sectors. The NAP explicitly calls for comprehensive climate risk assessments for WASH, the scaling up of rainwater harvesting, expansion of wastewater treatment, and the protection of water supply and quality through both infrastructure and ecosystem-based approaches (Section 4.2.2, pp. 172–176). In the health sector, priority WASH strategies are to strengthen protocols and ensure access to safe water and sanitation in post-disaster and vulnerable settings (Section 4.2.3, p. 186). The NAP calls for greater coordination on water and integrated watershed management along with regulatory reforms and inclusive planning to protect the resources that enable climate-resilient WASH services.
<b>Education</b>	While not a priority adaptation area, the NAP integrates education as a cross-cutting enabler for climate resilience. Education is not treated as a separate adaptation sector with its own chapter or detailed sectoral strategies; instead, it is embedded within broader priorities such as skills and capacity building, governance, and stakeholder engagement

Child rights dimension	Level of integration in the NAP
	<p>(Sections 5.1.1–5.1.3, pp.237–247). The NAP calls for the integration of CCA-DRR into national education curricula at all levels, including basic, higher, and technical/vocational education (Table 5.1.3.1, Skills &amp; Capacity Building 4, p.247). It identifies capacity building for teachers, school administrators and local government units, as well as the development of community-based adaptation approaches that leverage indigenous and local knowledge as important actions (pp.50, 247, 203).</p>
<b>Child Protection</b>	<p>Child protection is partially integrated under the priority on Cultural Heritage, Population Displacement and Migration, as well as in cross-cutting priorities. The NAP prioritizes the needs of children and other vulnerable groups in adaptation planning, calling for inclusion and protection in both policy and programmatic responses (Section 4.1, p.147). Specific strategies include ensuring access to social services and safe spaces for children in post-disaster and displacement contexts, scaling up psychosocial support (Sections 4.2.3, p.186; 4.2.5, pp. 210–211).</p>
<b>Social Protection</b>	<p>Social protection is partially integrated under the priority on Cultural Heritage, Population Displacement and Migration, as well as in Livelihoods and Industry. The NAP explicitly mentions funding for social welfare and community adaptation, including cash transfers, relocation support, and integrated approaches that address the needs of children and other vulnerable groups (Section 5.1.6, Table 5.1.6.2, p.260). It mandates the provision of social facilities such as day care centres and recreational spaces in resettlement areas, as well as temporary subsidies for food, education, and healthcare for displaced families (Section 4.2.5, p.210).</p>

## Nationally Determined Contributions 2021-2030

The Philippines submitted its first NDCs to the UNFCCC in April 2021. The UNICEF NDCs for Every Child analytical framework assesses NDCs against four child sensitivity criteria: Holistic & Multisectoral, References, Rights based, and Inclusive.<sup>184</sup> The Philippines 2021 NDC received Category “C”, meeting two of four criteria. While first NDC references children and youth and recognizes human rights, it could be strengthened with child sensitive commitments and indicators across health, education, WASH, child protection and social protection. The second NDCs will be submitted to the UNFCCC by November 2025.

**Table 10. NDCs for Every Child assessment of the Philippine NDCs**

NDCs for Every Child criterion	Philippine NDC reference	Assessment	Gaps & opportunities
<p><b>Holistic and Multisectoral</b></p> <p>The NDC addresses children’s specific risks and vulnerabilities through child sensitive actions across multiple sectors (e.g., health, education, WASH, social protection, nutrition, DRR) and links to resilient service delivery.</p>	<p>The NDC sets adaptation actions “across... agriculture, forestry, coastal and marine ecosystems and biodiversity, health, and human settlements,” framed by the National Climate Change Action Plan (NCCAP) thematic areas (e.g., food, water, human security) but without child specific targets, budgets, indicators, or explicit commitments for child critical social services such as education continuity, WASH resilience or adaptive social protection.</p>	Partial	<p>Add explicit child sensitive commitments and indicators across health, education, WASH, child protection and social protection (e.g., heat health for children, resilient schools, water security, adaptive cash for families), consistent with the NAP.</p>
<p><b>References</b></p> <p>The NDC meaningfully references children/young people in the narrative,</p>	<p>The NDC highlights “meaningful participation of women, children, youth, persons with diverse sexual orientation and gender identity, differently abled,</p>	Meets	<p>Move from mentions to measures: add a children/young people subsection (risks, objectives, targets), and tag</p>

<sup>184</sup> UNICEF. n.d. *UNICEF Toolkit: Child- and youth-sensitive Nationally Determined Contributions*. <https://www.unicef.org/media/163776/file/Child%20and%20Youth%20Sensitive%20NDCs%20Toolkit%20-%20English.pdf>

NDCs for Every Child criterion	Philippine NDC reference	Assessment	Gaps & opportunities
objectives or actions (beyond generic vulnerability lists).	Indigenous peoples, elderly, local communities, CSOs, faith based orgs, and the private sector;” and acknowledges the role of education and public awareness (Action for Climate Empowerment, Article 12).		child relevant actions across sector policies and measures.
<p><b>Rights-based</b></p> <p>The NDC recognizes children as rights holders, references child rights or intergenerational equity, and commits to equity focused measures.</p>	The NDC references human rights, social and climate justice and the rights of Indigenous peoples; however, it does not explicitly reference the UN Convention on the Rights of the Child or child rights, intergenerational equity or specific safeguards for children in implementation.	Partial	Add explicit child rights framing (e.g., Convention on the Rights of the Child, intergenerational equity) and safeguards (do no harm; protection from exploitation in green transitions), plus equity focused targets for most disadvantaged children.
<p><b>Inclusive</b></p> <p>The NDC is informed by and provides for meaningful participation of children and young people at all stages and levels; includes mechanisms for ongoing engagement and monitoring.</p>	The NDC was developed through a “whole of government and society approach” and commits to the meaningful participation of children and youth; it also recognizes education and public awareness under Action for Climate Empowerment (Article 12). The NDCs do not specify engagement mechanisms/ indicators (e.g., child friendly consultations, accountability or disaggregated monitoring).	Meets	Codify structured participation (national–local), including child friendly processes, safe guarding protocols, and monitoring with age/sex/disability disaggregation; add a standing children and youth forum in NDC governance.

## Climate and disaster finance

The Government of the Philippines is demonstrating global leadership across the major climate funds. As the country's Green Climate Fund National Designated Authority, the Department of Finance represents the Philippines on the Green Climate Fund Board for the 2025–2027 term as an alternate member. In parallel, the Philippines was elected to the Adaptation Fund Board in April 2025, where the Department of Finance (DOF) helped steer decisions to double country caps and increase programme sizes, and is pursuing direct access by advancing DOF's application as a national implementing entity. Finally, the Philippines was selected to host and sit on the Board of the Fund for Responding to Loss and Damage, providing both the institutional platform to accelerate the Fund's operationalization and an Asia Pacific voice in designing support for front-line countries.

The government has set aside specific budget for adaptation to climate change at the LGU level. In 2011, the Climate Change Act was amended by RA 10174, also known as the People's Survival Fund (PSF) Act. This amendment allocated PHP1 billion under the General Appropriations Act to finance local adaptation initiatives. The first PHP1 billion was fully allocated to projects proposed by LGUs and another PHP1 billion replenished for further allocation. The PSF Act also included the National Youth Commission and the President of the Sangguniang Kabataan National Federation in the Advisory Board of the CCC, ensuring children and youth's voice in climate discourse.<sup>185</sup> However, most projects approved under the PSF are focused on agriculture, ecosystems and large water projects such as flood control, without any projects focused on social services prioritized in the NAP like health, water and sanitation or migration.

The government has adopted Climate Change Expenditure Tagging (CCET) to assess and align its resource allocation with the seven strategic priorities and cross-cutting strategies outlined in the NCCAP. CCET is embedded in both national and local budget processes. While implementation is widespread, limitations remain. LGUs often lack the technical capacity to implement CCET effectively. Tagging is often done after expenditure, limiting use of CCET for proactive planning, and there is limited use of CCET in local budget and expenditure analysis.

There is also a National Disaster Risk Reduction and Management Fund (NDRRM Fund), a lump-sum fund appropriated annually for activities related to disaster risk reduction, mitigation, prevention and preparedness. This fund can also be used for relief, recovery, rehabilitation and reconstruction efforts. A significant portion of the NDRRM Fund, 30 per cent, is allocated to the Quick Response Fund (QRF), a standby fund for immediate relief and recovery allocated to key agencies. The utilization rate of the NDRRM Fund is hampered by slow approval and release processes. At the local level, LGUs are mandated under Section 21 of RA 10121 to allocate at least 5 per cent of their revenues to the Local Disaster Risk Reduction and Management Fund, which supports disaster preparedness and calamity insurance premiums, with 30 per cent earmarked for QRF.

<sup>185</sup> Climate Change Commission. n.d. People's Survival Fund. <https://climate.gov.ph/our-programs/climate-finance/peoples-survival-fund>.

## Disaster Risk Reduction and Management Act of 2010

Republic Act No. 10121, the Philippine Disaster Risk Reduction and Management Act of 2010, is the overarching law that strengthens the country’s disaster risk reduction and management (DRRM) system. It was enacted in 2010 to shift the national approach from reactive disaster response to a proactive, comprehensive and community-based DRR strategy. It has four key areas of focus: disaster prevention and mitigation, disaster preparedness, disaster response and disaster rehabilitation and recovery. The subsequent National DRRM Plan 2011–2028 operationalizes these priorities, emphasizing the need to build safe, adaptive and disaster-resilient communities for sustainable development.<sup>186</sup> It was later updated to the National Disaster Risk Reduction and Management Plan 2020-2030 which refines the outcomes, key activities and agency accountabilities across the four thematic areas. It also ensures closer convergence of DRRM and CCA, recognizing their interlinked role in advancing sustainable development.

### 4.2 Sectoral policies, strategies and plans and their focus on climate and children

Many NGAs have integrated climate, environment and DRR considerations into sectoral policies, strategies and plans. These sectoral policies, and strategies are summarized in this section, and a table is presented in Annex B. Overall, the key policies in all sectors recognize and address climate, environment and DRR issues and a significant number of initiatives are under way to address the impacts on children.<sup>187</sup>

## Health

**Table 11. Overview of health-, climate- and DRR-related policies and initiatives**

Policy, strategy or plan
Republic Act No. 11223 “Universal Health Care (UHC) Act”, and its Implementing Rules and Regulations
Republic Act No. 11332 “Mandatory Reporting of Notifiable Diseases and Health Events of Public Health Concern Act”, and its Implementing Rules and Regulations
Republic Act No. 10152 “Mandatory Infants and Children Health Immunization” Act
National Objectives for Health 2023-2028 and DOH’s Eight-Point Agenda for Health
National Environmental Health Action Plan (NEHAP) 2023-2030
Philippine Roadmap on Health and Climate Change 2025 - 2050

<sup>186</sup> Official Gazette of the Republic of the Philippines. 2010. Republic Act No. 10121. [online] <https://www.officialgazette.gov.ph/2010/05/27/republic-act-no-10121/>.

<sup>187</sup> This analysis of initiatives is limited to government led initiatives only and does not include initiatives implemented by development partners.

Policy, strategy or plan
Green and Safe Health Facilities Strategic Plan 2030
Philippine Integrated Disease Surveillance and Response
Philippine Roadmap for Sustainable, Safe and Universal Access to Water, Sanitation, Hygiene and Waste in Health Facilities 2030
Administrative Order 2022-0038 Health Sector Strategy 2023-2028
Philippine Roadmap on Health and Climate Change 2025-2050

The Philippine health sector has a strong established focus on DRR in maternal, newborn and child health (MNCH), and, in recent years, an accelerated focus on CCA through both the policy framework and institutional set up. Climate governance is strengthening through the creation of the DOH Health and Climate Change Office in 2025 and alignment with the NAP, while DRR is well established as a part of the work of the Health Emergency Management Bureau. The health sector is one of the first to develop their own sectoral plan in complement to the NAP through the Philippine Roadmap on Health and Climate Change 2025-2050. The Health and Climate Change Office is in the process of leading development of a Health National Adaptation Plan.

Universal Health Care (RA 11223) and DRRM H policies mandate steps to ensure continuity of essential services during emergencies, benefiting MNCH and immunization. Surveillance systems under the Mandatory Reporting of Notifiable Diseases and Health Events of Public Health Concern Act (RA 11332) and Philippine Integrated Disease Surveillance and Response provide robust monitoring for climate-sensitive diseases like dengue and cholera. Healthcare facility resilience is addressed through the Green and Safe Health Facilities Manual and WASH FIT, embedding low-carbon, climate-smart standards in hospitals. NEHAP 2023–2030 mainstreams climate concerns and social and behaviour change, prioritizing vulnerable groups such as children. Health system adaptation focuses most on heat/drought, extreme rainfall and tropical cyclones, with SLR least addressed.

## Nutrition

**Table 12. Overview of nutrition-, climate- and DRR-related policies and initiatives**

Policy, strategy or plan
Philippine Plan of Action for Nutrition 2023-2028
Nutrition in Emergencies Strategic Plan 2023-2028
Philippine Strategic Plan to Address Overweight and Obesity 2023–2028
Strategic Plan for Addressing Overweight and Obesity (2023–2028)

The Philippine nutrition policy framework, through the Philippine Plan of Action for Nutrition (PPAN) 2023-2028 and Nutrition in Emergencies Strategic Plan 2023-2028,<sup>188</sup> has some integration of CCA and DRR. However, the PPAN does not incorporate climate dimensions into its objectives, and the Philippine Statistics Authority (PSA) lacks mechanisms for collecting climate-related nutrition and health data. Hazards are referenced generically as “disasters/emergencies,” without systematic alignment to the four climate drivers in the NAP (heat/drought, sea level rise, extreme precipitation, extreme wind). While surveillance of child malnutrition through is robust, opportunities exist to make it climate risk informed and integrate climate hazard tagging or early warning triggers aligned with the four climate drivers. Overweight and obesity prevention is included in PPAN, yet links to climate impacts and food environment disruptions remain implicit. The PPAN focuses more on DRR than climate adaptation, which may miss opportunities to build resilience to projected changes rather than historical incidence of extreme events. Neither PPAN nor Nutrition in Emergencies explicitly addresses anticipatory action or climate proofing of nutrition services and supply chains.

During consultations, stakeholders recommended strengthening surveillance and treatment of malnutrition in high climate risk areas, setting standards for local implementation, and promoting climate-resilient healthcare facilities. Effective cross-sectoral collaboration, climate-sensitive nutrition counselling and improved early warning systems were recommended, along with piloting local interventions and tracking climate and disaster impacts on health and nutrition.

<sup>188</sup> Awaiting approval from the National Nutrition Council Governing Board.

## Water, sanitation and hygiene (WASH)

**Table 13. Overview of WASH-, climate- and DRR-related policies and initiatives**

Policy, strategy or plan
Code on Sanitation of the Philippines (PD 856)
Republic Act No. 9275 “Clean Water Act” and its Implementing Rules and Regulations
Integrated Water Resources Management Plan
Philippine Water Supply and Sanitation Master Plan (PWSSMP)
National Building Code of the Philippines (PD 1096)
National Environmental Health Action Plan (NEHAP) 2023-2030
Department of Health, Administrative Order No. 2019-0054: Philippines Approach to Sustainable Sanitation
Executive Order No. 22 (2023): Creating the Water Resources Management Office in the Department of Environment and Natural Resources (DENR)
DOH Administrative Order 2010-0021: “Sustainable Sanitation as a National Policy and a National Priority Program of the Department of Health”
DOH Administrative Order No. 2014-0027: National Policy on Water Safety Plan for All Drinking-Water Service Providers
DOH Administrative Order No. 2017-0010: Philippine National Standards for Drinking Water of 2017
DOH Administrative Order No. 2020-0032: National Policy on WASH in Emergencies
Unified Resource Allocation Framework for Water Resources Projects under the Department of Budget and Management (DBM) Financing Guidelines
Joint Memorandum Circular No. 2, Series of 2014: Guidelines for Setting Up and Operating Local Economic Enterprises for Public Utilities
Presidential Decree No. 1067: The Water Code of the Philippines

The main policy document for the WASH sector, advancing SDG targets 6.1 and 6.2, is the Philippine Water Supply and Sanitation Master Plan (PWSSMP), 2019-2030. The PWSSMP includes Building Climate Resiliency as a key reform agenda (#5 of 8 total), which mandates climate risk assessments to inform low-risk siting, climate-resilient design standards and emergency preparedness for WASH



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The midwives of General Luna Municipality in Siargao transport family hygiene kits from General Luna Senior High to the field hospital for patients with diarrhoea. The lack of safe drinking water and inadequate sanitation facilities increased the diarrhoea cases among affected children and families in Siargao Island.

services. Water supply shows the strongest climate integration, while sanitation is only partially integrated and hygiene is minimally addressed. Faecal sludge management is included in service planning but not explicitly linked to climate adaptation, and the plan does not address mitigation of sanitation-related emissions.

The National Environmental Health Action Plan (NEHAP) 2023–2030, is a DOH-led multisectoral framework addressing environmental health risks including water, sanitation, air quality, solid waste and chemicals. It explicitly integrates climate change as a cross-cutting determinant of environmental health. Among the priority actions included protecting communities from extreme heat, preparing for disasters and making water and sanitation systems more resilient. It also pushes for reducing pollution and promoting more sustainable ways of using resources.

In 2024, DENR and DEPDev released the Integrated Water Resources Management (IWMP), a key planning document that harmonized the vision for the sector and balances social, economic and environmental objectives. The IWMP acknowledges that climate change is a key driver of water stress and included among its priority strategic actions the mainstreaming of climate change/DRRM in planning, conduct of climate vulnerability and risk assessment, integrating climate resilience into irrigation, rehabilitating watersheds and improving how water demand is managed. It emphasized the need for watershed-based planning and stronger coordination between agencies. An important provision in the plan is the inclusion of sanitation as a key performance indicator of water service providers that would support expanding sanitation coverage.

In practice, implementation is challenged by a fragmented sector architecture. Governance of water resources in the Philippines involves over 30 agencies with overlapping mandates. The National Water Resources Board oversees national water regulation, while other agencies like the National Irrigation Administration, Local Water Utilities Administration and Department of Environment and Natural Resources also have oversight roles. LGUs are primarily responsible for WASH provision,

involving various service delivery models including government-owned corporations, LGU-run utilities, community-based water groups and private companies. Regulation of these providers is inconsistent, with varying standards. The fragmentation complicates efforts at LGU level to build climate resilience into WASH service delivery.

In recent years, the creation of the Water Resources Management Office was a step towards improving coordination. It serves to strengthen policy harmonization across the sector, although its mandate does not yet encompass full regulatory or enforcement powers.

## Education

**Table 14. Overview of education-, climate- and DRR-related policies and initiatives**

Policy, strategy or plan
Basic Education Development Plan 2030
Quality Basic Education Development Plan 2025-2035
Class and Work Suspensions in Schools during Disasters and Emergencies - DepEd Order No. 22, s. 2024-2025
DepEd Standard and Resilient School Building Design - DepEd Orders No. 64, s. 201723 and No. 006, s. 202124
DepEd Order Nos. 21 and 37, s. 2015: Comprehensive DRRM in Basic Education Framework
DepEd Order No. 57, s. 1995: Site Selection
DepEd Order No. 23, s 2015: Student-led School Watching and Hazard Mapping
DepEd Order No. 72, s. 2003 Establishment of the Youth for Environment in Schools (YES) Organization
DepEd Order No. 10, s, 2016: Policy and Guidelines for the Comprehensive Water, Sanitation and Hygiene in Schools (WinS) Program
DILG–DepEd Joint Memorandum Circular No. 1, series of 2016: Water, Sanitation and Hygiene (WASH) in Early Childhood Care and Development (ECCD)
Early Childhood Care and Development System Act RA (12199)
National Environmental Awareness and Education Act (RA 9512, 2008)
ECCD Council Advisory 1, series of 2023, Center-Based Programs Implemented in Alternative Venues (CBPAV)



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Students in Hanginan Elementary School, Maasin City received UNICEF school supplies and a temporary learning space in support of their limited in-person learning.

DepEd's policy architecture has had a long-standing focus on DRR and is increasingly climate risk informed, including through the Basic Education Development Plan 2030. DRR is fully institutionalized through a dedicated Disaster Risk Reduction and Management Service within DepEd, a comprehensive DRRM framework and school level protocols. These policies and orders address three out of the four climatic impact drivers in the Philippine NAP (2023–2050), precipitation, heat, and wind/typhoons, but does not explicitly account for the impact of sea level on coastal schools and communities. Updated class and work suspension rules account for extreme heat and poor air quality as well as typhoons and heavy rain. CCA is integrated into building standards, and prioritization of resilient school infrastructure is evident in the Minimum Performance Standards and Specifications for school buildings. The National Environmental Awareness and Education Act (RA 9512, 2008) requires DepEd, the Commission on Higher Education, the Technical Education and Skills Development Authority (with DENR, Department of Science and Technology) to integrate environmental education into curricula at all levels, public and private, including daycare, non-formal, Alternative Learning System, technical-vocational and professional programmes.

During consultation, education sector actors identified a disconnect between the budgeting and construction of school buildings, leading to a shortage of climate-resilient classrooms and inconsistent implementation of building standards. Additional challenges involved strained relations between schools and LGUs over the issuance of class suspensions, limited funding and support for school clubs, and a lack of time for extracurricular activities related to climate change and DRR. Furthermore, stakeholders reported a lack of education-specific data and indicators on climate and education.

DepEd has an existing programme called the Youth for Environment in Schools Organization (YES-O) which was established in 2003 through DepEd Order No. 72, s. 2003. It serves as the only recognized environmental club in schools, consolidating all other ecology or environmental groups under one umbrella. Its purpose is to provide a structured venue for students to take action in environmental protection, conservation and climate resilience. As of school year 2023–2024, there were 32,345 schools with YES-O chapters involving 5.3 million learner-members. There are opportunities to strengthen how to organize, ensure quality content, provide support (financial, material, opportunities) to YES-O.

## Social Protection

**Table 15. Overview social policy, climate- and DRR-related policies and initiatives**

Policy, strategy or plan
Social Protection Operational Framework and Strategy of the Philippines - Department of Social Welfare and Development (DSWD)
Social Protection Plan 2023-2028 - Department of Social Welfare and Development (DSWD) and the National Economic Development Authority (NEDA)
Roadmap on Adaptive and Shock Responsive Social Protection, adopted by the National Disaster Risk Reduction and Management Council (NDRRMC)
Republic Act No. 11310: An Act Institutionalizing the Pantawid Pamilyang Pilipino Program (4Ps)
Declaration of State of Imminent Disaster (RA 12287)
Draft Adaptive and Shock Responsive Social Protection (2026-2028)
Sustainable Livelihood Program
Risk Resiliency Program
DSWD Emergency Cash Transfer Program

The Philippine social protection framework prioritizes resilience, with DRR measures more operationalized than CCA. The Adaptive and Shock-Responsive Social Protection Roadmap, established in 2021, delineates a five-year action plan to strengthen the links between social protection programmes and DRM. The road map provides recommendations to enhance coordination, improve information management systems, invest in DRM systems, identify entry points for SP programmes and DRM policy coherence, and explore contingency funding for adaptive and shock-responsive SP. The road map is constrained by its narrow focus on only four social protection programmes (4Ps, Emergency Cash Transfer, SLP, and SAAD) managed by the DSWD and the Department of Agriculture. Additionally, reaching the 'missing middle'—households not covered by existing social protection programmes—during shocks or disasters also presents a challenge. While social assistance is accessible to low-income households and social insurance covers formal sector workers, there are no clear mandates or mechanisms to support this vulnerable middle group.<sup>189</sup> Vulnerable groups, including those not covered by existing programmes, are at risk of falling deeper into poverty when shocks occur. The need for comprehensive, interoperable, and regularly updated social registries is emphasized as a lesson learned from recent shocks, including the COVID-19 pandemic.

The Social Protection Plan 2023–2028 embeds adaptive shock responsive social protection (ASRSP) as a strategic focus, while the Emergency Cash Transfer guidelines provide an additional mechanism for rapid response to emergencies. However, alignment with the NAP's four climate drivers is only partial:

<sup>189</sup> UNICEF Working Paper 4 – The Philippines (unpublished).

typhoons and droughts are addressed, while extreme heat and sea-level rise need integration. Child-sensitive considerations are implicit through programmes like the 4Ps and emergency cash transfers, yet anticipatory and slow-onset climate risks affecting children’s health, education and nutrition are not fully integrated.

## Child Protection

**Table 16. Overview child protection related policies and initiatives and focus on climate, environment, DRR and children**

Policy, strategy or plan
Fourth National Plan of Action for Children (NPAC) 2023–2028
Comprehensive Emergency Program for Children (CEPC)
Department of the Interior and Local Government (DILG) Memorandum Circular No. 2018-196: Guidelines on the Localization of the CEPC
Ligtas Pinoy Centers Act of 2024 or the Evacuation Center Management Act, Republic Act No. 12076
Republic Act No. 10821: Children’s Emergency Relief and Protection Act

The Philippines’ child protection framework prioritizes DRR and emergency protection mandates, anchored in RA 10821 and the CEPC, but lacks climate integration. Localization via DILG MC 2018 196 and DSWD guidance operationalizes child friendly spaces, case management and service continuity in evacuation and displacement contexts. The 2024 Ligtas Pinoy Centers Act (RA 12076) further institutionalizes climate and disaster - resilient evacuation centres nationwide with stringent structural and siting standards. While the NAP 2023–2050 names four climatic impact drivers, child protection instruments only partially reflect them. Emergency response and DRR measures address rapid onset hazards (typhoons, floods) but slow-onset changes such as heat extremes or sea level rise are not well reflected. Opportunities include codifying heat and sea level rise triggers for child protection surge actions, embedding minimum child protection service packages in evacuation centre standard operating procedures, and strengthening civil registration restoration for repeatedly displaced coastal and flood prone LGUs. These measures would strengthen psychosocial support, ensuring education continuity and improving protection monitoring for abuse, exploitation and trafficking during climate-induced emergencies.



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In Marantao, BARMM, Philippines, Nasima brings her 7-month-old son Ziyad, to the Marantao Rural Health Unit for a routine checkup and immunization held every Wednesday.

### 4.3 BARMM policy framework for climate, disasters and children

As an autonomous region, BARMM has additional policies and plans in complement to the national policy framework. BARMM's legal and institutional framework for climate and disaster governance is still evolving. The Bangsamoro Organic Law and the Bangsamoro Administrative Code provide the overarching authority and define roles and responsibilities for regional ministries with mandates relevant to climate adaptation, DRR and children. Legislation to create a proposed Bangsamoro Climate Change Commission and an Environmental Code was introduced into the BARMM Parliament in 2023 but remains pending. However, only emergency response and DRR mechanisms are fully operationalized through the Bangsamoro Disaster Risk Reduction and Management Council and its operations arm, Bangsamoro Rapid Emergency Action on Disaster Incidence, under the BARMM Ministry of Interior and Local Governance. The 2025 Bangsamoro Disaster Response Plan is BARMM's core operational framework for DRR and emergency response, structured around a cluster system aligned with national and humanitarian standards. Although primarily response-focused, the Bangsamoro Disaster Response Plan integrates risk reduction and resilience principles, including early warning, anticipatory actions and minimum standards for gender- and child-sensitive interventions. Climate change is addressed indirectly through provisions for hazard-specific contingencies (e.g., floods, droughts) and coordination with the Ministry of Environment, Natural Resources and Energy for environmental and adaptation measures.

# Opportunities and recommendations for child-responsive climate and disaster resilience



### **At a glance**

The Philippine government is a global leader in institutionalizing policies and promoting initiatives that enshrine climate action and disaster resilience, while safeguarding the rights of young people. Opportunities remain to further this leadership across three dimensions: climate-resilient social services for children, policies and plans and generating evidence for inclusive climate action.

### **Invest in climate-resilient social services as part of the NAP localization process**

- Through NAP localization, the investment portfolio for risk resilience (IPRR) can be used to develop a pipeline of climate-resilient social service projects for vulnerable and high-exposure LGUs, with clear pathways to access global and domestic climate finance (e.g., People's Survival Fund, Green Climate Fund, Adaptation Fund).
- Develop templates for LGUs to plan and budget for climate-resilient sector investments; provide financial support mechanisms to help low-income LGUs meet co-financing requirements; and expand the CCET to include social sectors and support regular climate budget audits for transparency.
- Strengthen NGAs and LGUs' capacity to integrate climate action, especially in child-focused sectors and address gaps in human and technical resources at the local level for effective implementation.

### **Strengthen climate and social service policies, using child-focused data, building LGU capacity and ensuring inclusive participation across sectors.**

- Strengthen collaboration between climate-mandated agencies (e.g. CCC, DENR, DOST) and child-focused social service agencies (e.g. DepEd, DOH, DSWD) through NAP localization to strengthen policies, align strategies and finance climate-resilient services.
- Integrate child-centred vulnerability data into local and regional planning, embedding it in LCCAPs to ensure interventions in health, education, nutrition, WASH, protection and social protection.
- Strengthen LGU capacity for climate and disaster risk planning by developing sector-specific tools, technical support and training—especially in high-risk, low-resource areas and in BARMM.
- Institutionalize mechanisms for children and youth to engage in climate policy, planning and monitoring.

### **Generate disaggregated data, address key sectoral evidence gaps, and establish a national framework to monitor climate impacts on children**

- Address critical sectoral evidence gaps, including climate's impact on ECCD, mental health, nutrition, climate-sensitive diseases, sanitation-related emissions, hygiene under stress, and indoor/outdoor air pollution.
- Establish a national monitoring framework for climate impacts in social sectors aligned with the Global Goal on Adaptation, enabling consistent indicators, tracking and integration into planning and budgeting.

The government is in the process of localizing the NAP (2023-2050) to downscale national strategies into sectoral and subnational programmes and projects. Practically, this entails the translation of national NAP priorities into LGU owned plans and budgets (e.g., LCCAPs, local disaster risk reduction and management plans, comprehensive development plans, annual investment plans) and sector implementation guidelines. This will be supported by NGAs through downscaled climate analytics, development of bankable projects through an IPRR linked to financing. With the submission of updated NDCs to the UNFCCC in November 2025, an updated NDC implementation plan may also be anticipated.

As the government embarks on this process, children's rights can be further protected and enshrined by strengthening the policy framework and equipping, engaging, and empowering young people to take a proactive role in climate action and disaster resilience within their schools, communities and society. Opportunities remain across three dimensions: policies and plans, climate-resilient social services for children, and generating evidence for inclusive climate action.

## 5.1 Climate-resilient social services for children

Most urgently needed are investments in climate-proofing the social services that children rely on for their survival and development: health, nutrition, education, WASH, child protection and social protection. Through NAP localization, the IPRR can be used to develop a pipeline of climate-resilient social service projects for vulnerable and high-exposure LGUs, with clear pathways to access global and domestic climate finance (e.g., People's Survival Fund, Green Climate Fund, Adaptation Fund).

Specific templates for LGUs to plan these climate-resilient sector investments would help accelerate the planning and budgeting process, and financial support mechanisms will be needed to help low-income LGUs meet co-financing requirements.

The CCET can be used to establish a baseline understanding of government investment in climate action and children's rights. CCET can also support transparency and accountability in climate finance if expanded to fully include social sectors and supporting regular climate budget audits.

Achieving these goals will require continued investment in capacity building. Some NGAs have a strong understanding of climate change, integrating climate considerations into their strategies, frameworks, plans and budgets. However, other NGAs are likely to have greater capacity in DRRM than in climate action. At the same time, technical capacities for integrating climate change into child-focused sectors remains limited. Challenges related to human and technical resources at the local level also hinder the effective planning and implementation of climate change initiatives. The Bangsamoro Government requires additional training to identify suitable tools and initiatives related to children and climate.

**Table 17. Child-focused adaptation and mitigation priorities by sector**

Child rights dimension	Child-focused adaptation and mitigation priorities	NAP or NDC alignment
Health	<ul style="list-style-type: none"> <li>• Establish / strengthen early warning systems comprised of climate data from PAGASA for climate-sensitive diseases and strengthen both emergency preparedness and adaptation measures</li> <li>• Increased surveillance and treatment of climate-sensitive diseases, including heat-related, vector borne and waterborne</li> <li>• Strengthen PhilHealth benefit packages for climate-sensitive diseases</li> <li>• Deliver climate-resilient healthcare facilities and services, including WASH, vaccines, medicines, and environmentally safe healthcare waste management</li> <li>• Seek opportunities for mitigation through health system and supply chains (e.g., medicine, vaccines, etc)</li> <li>• Generate evidence on and address environmental determinants of children’s health in prevention and treatment strategies</li> </ul>	<p>NAP Section 4.2.3</p> <p>NDCs under energy</p>
Nutrition	<ul style="list-style-type: none"> <li>• Deliver child-and youth-friendly information and services in accessible formats</li> <li>• Establish climate risk assessment, early warning systems comprised of climate data from PAGASA and agricultural data to inform agriculture food production and strengthen preparedness for emergencies and adaptation measures</li> <li>• Strengthen surveillance and treatment of malnutrition in high climate risk areas</li> <li>• Strengthen climate-sensitive nutrition counselling through household level interventions, community engagement and social and behaviour change</li> <li>• Strengthen potential for mitigation in food systems through agricultural and waste management practices</li> <li>• Explore potential for a “planetary health diet”<sup>190</sup> package of interventions for LGUs that addresses nutrition adaptation and mitigation opportunities</li> <li>• Strengthen cross-sectoral collaboration between agriculture, health, nutrition, and social protection to strengthen both nutrition and food security (availability, access) against the impacts of climate change</li> </ul>	<p>NAP Section 4.2.1 and 4.2.3</p> <p>NDCs under agriculture</p>

Child rights dimension	Child-focused adaptation and mitigation priorities	NAP or NDC alignment
Water and Sanitation	<ul style="list-style-type: none"> <li>• Conduct climate vulnerability and risk assessment of WASH systems, to inform and mainstream CCA/DRRM in planning, design, implementation and monitoring</li> <li>• Ensure climate-resilient water supply services through improved infrastructure, water safety planning, and service delivery</li> <li>• Ensure climate-resilient sanitation services across the full sanitation service chain (e.g., flood safe pit designs, continuity of desludging during shocks, treatment plant resilience) and hygiene behaviours and infrastructure</li> <li>• Implement sanitation greenhouse gas mitigation measures and propose greenhouse gas (GHG) metrics for sanitation projects to contribute to the NDCs</li> <li>• Improve youth participation in climate-resilient WASH and encourage Sangguniang Kabataan officials to develop projects addressing climate change impacts on WASH</li> </ul>	<p>NAP Section 4.2.2 and 4.2.3</p> <p>NDCs under waste sector</p>
Education	<ul style="list-style-type: none"> <li>• Conduct climate vulnerability and risk assessment of schools, to inform and mainstream CCA/DRRM in school-based management and infrastructure planning</li> <li>• Ensure climate and disaster resilient, safe schools and child development centres through improved infrastructure, monitoring, planning and management</li> <li>• Integrate climate change, DRR and environmental education into school curriculum</li> <li>• Support pathways for students and out-of-school youth to develop skills and certifications needed for a green economy, including through technical and vocational education and training (TVET) programmes and the Technical Education and Skills Development Authority (TESDA)</li> <li>• Increase support for youth organizations, including allocation of one per cent of the school budget</li> <li>• Empower teachers and child development workers with training and teaching materials on climate, environment and DRR</li> </ul>	<p>NAP Sections 5.1.1–5.1.3</p> <p>NDCs under energy</p>

<sup>190</sup> Based on the EAT Lancet Commission on Healthy, Sustainable and Just Food Systems report, the Planetary Health Diet considers the transgressions to planetary boundaries brought about by the food system.

Child rights dimension	Child-focused adaptation and mitigation priorities	NAP or NDC alignment
Child Protection	<ul style="list-style-type: none"> <li>• Enhance child protection monitoring for abuse, exploitation and trafficking during climate emergencies</li> <li>• Embed child protection systems strengthening into social protection programmes (e.g., 4Ps and PhilSys-enabled services) can strengthen shock-responsive systems, ensuring that child protection risks—such as family separation, child labour and child marriage—are proactively mitigated in climate emergencies</li> <li>• Provide psychosocial support to address climate-related stress, depression and trauma, particularly among children and youth and include it into national and local adaptation strategies</li> <li>• Include climate anxiety or trauma in child protection case management and coordinate with health and education sectors</li> <li>• Update child protection in CEPC and LGU tools to include climate risks (heat, sea-level rise, migration)</li> <li>• Organize child-led safety audits with youth climate organizations</li> </ul>	NAP Section 4.1, Sections 4.2.3 and 4.2.5
Social Protection	<ul style="list-style-type: none"> <li>• Expand access to shock responsive social protection systems</li> <li>• During the 4Ps design review, make use of climate risk data to apply a climate lens to targeting and benefits</li> <li>• Explore the use of cash transfers for anticipatory action as part of implementation of the Law on Imminent Disaster (2025)</li> <li>• Strengthen child disability lens in social protection and climate policies</li> <li>• Consider climate risk as one of the main themes to be introduced in the Family Development Sessions led by DSWD and engage youth representatives in the delivery of these sessions</li> <li>• Conduct a review and enhancement of dynamic social registries to ensure they effectively support climate-responsive and inclusive social protection systems</li> <li>• Promote and encourage digital payment for cash transfers where possible</li> <li>• Support the development of child-friendly community evacuation centres</li> </ul>	NAP Section 5.1.6

Child rights dimension	Child-focused adaptation and mitigation priorities	NAP or NDC alignment
Cross-cutting	<ul style="list-style-type: none"> <li>• Strengthen the collection, analysis, dissemination, utilization and monitoring of subnational climate-related data for health, WASH and social services to better inform localized planning and interventions</li> <li>• Develop and implement comprehensive indicators for climate-resilient social services within climate resilience frameworks to monitor progress and improve accountability</li> <li>• Develop financing mechanisms for climate adaptation in social services</li> <li>• Increased participation of children and youth in climate action planning and policy consultations</li> </ul>	NAP Section 4.2.5

The expansion of climate-resilient social services offers young people opportunities for employment and entrepreneurship. DepED’s curriculum and TESDA’s technical and vocational training programmes can be utilized to help prepare them for this transition. Innovative technologies for adaptation and mitigation offer great promise, but this technology requires substantial investment, policy support, infrastructure, and ongoing training for teachers, trainers and students. Young people from rural areas and the urban poor need greater support to access capacity-building programmes and opportunities within the green economy.

Child and youth participation must be embedded across all levels of climate action. This includes inclusive consultations that capture children’s lived experiences, integration of climate education in schools, support for youth-led solutions and capacity-building to enable monitoring and accountability. Promoting climate-resilient behaviours and leadership among children and youth is essential for advancing equitable, sustainable climate action and intergenerational justice.

## “ Children and Youth Voices

### Strengthening Climate Resilience in the Social Sectors

We call for urgent, comprehensive, coordinated and inclusive action so that we can survive and thrive amid this climate crisis.

- **Protect our health.** Expand our access to safe, inclusive and climate-ready health services, especially in rural areas that are responsive to the unique needs, risks and vulnerabilities of different identities among youth and children. Train and pay health workers fairly. Make mental health support and reproductive education and care available and accessible. Deliver information and services in child- and youth-friendly, accessible ways.
- **Secure our nutrition.** Protect feeding programs—which many of us rely on—during disasters. Support farmers and fisherfolk to ensure that our communities have adequate, affordable, nutritious food. Promote local food systems, reduce waste and ensure safe water for cooking and drinking. Promote sustainable and responsible consumption.
- **Make learning safe, ready and resilient.** Build stronger, climate- and disaster-resilient programs and classrooms: none of us should have to miss class because the room is flooded, collapsing or too hot. Prepare for disasters. Ensure that we have clean water, safe toilets and inclusive climate education with practical, actionable learning that students can apply in their communities. Learning materials and systems must support children and young people with disabilities, and respect rural and indigenous knowledge and systems. Expand peer-to-peer learning and promote disaster risk reduction and climate resilience education in schools to help prepare youth and students in times of crisis.
- **Ensure clean and safe water.** Upgrade water and sewage systems. Prevent pollution. Provide hygiene kits and rainwater harvesting. Guarantee that we have safe toilets and handwashing in schools and evacuation centres.
- **Keep us safe from violence.** Build systems that we can use and trust, especially for us in far-flung areas: hotlines, services and safe spaces that are always available and accessible. Involve us in designing programs meant to protect us.
- **Support families and livelihoods.** All forms of aid must reach those most in need. Strengthen access to fair wages, green jobs, and climate-resilient livelihoods and equip with skills to access these opportunities.

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*(Source: Statement of Filipino Children and Youth on Nationally Determined Contributions and Just Transition)*



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## 5.2 Climate policy and plans

To strengthen the policy link between climate at the social sectors, NGAs with climate mandates (CCC, DENR, DOST, DOF, NDRRMC) could strengthen collaboration with those delivering social services for children (e.g., DSWD, DOH, DepEd, ECCD, DILG, Department of Agriculture, National Nutrition Council). The process of NAP localization could be used to make this link, align strategic planning and ensure resources are allocated to climate-resilient social services for children.

Regional and local planning can incorporate child-centred vulnerability data alongside the downscaled climate data to inform targeting of resilience-building activities in high exposure provinces based on more than only poverty data. At the local level, embedding child-focused risk and vulnerability assessments linked to key child rights of health, nutrition, education, WASH and protection into LCCAPs will enable more targeted and equitable interventions.

To operationalize these plans, LGUs need support to build technical capacity for climate and disaster risk assessments (CDRA) and LCCAP development integrating multiple child-focused sectors. National agencies and development partners should prioritize capacity-building and technical support, particularly for high-risk and resource-constrained LGUs. This may require developing new, sector-specific tools for health, nutrition, education, WASH and protection service providers.

Finally, children's and adolescents' participation and the participation of vulnerable groups must be institutionalized in the planning, budgeting, implementing and monitoring of DRR, climate adaptation and resilience programmes. Platforms like the CCC's Children and Youth Forum and the National Youth Commission's consultations demonstrate growing recognition of youth voices in climate governance. However, meaningful engagement is still not consistently institutionalized across all government agencies. While several climate initiatives have highlighted the importance of inclusion, there is a need to ensure that the rights and unique vulnerabilities of children with disabilities, children in GIDAs, children on the move, indigenous children and pregnant and lactating mothers are explicitly included in climate priorities across all sectors. Local and national planning documents can be further reviewed to take advantage of these opportunities. DENR recognizes the importance of institutionalizing youth participation in environmental and climate programs. Future initiatives under the Risk Resiliency Program and the implementation of the Extended Producer Responsibility Act can integrate structured youth engagement through environmental education, citizen science, and community stewardship components.

While government agencies are actively pursuing CCA and DRR for children and youth, there is a gap in climate change mitigation policies and programmes that involve young people. Through their advocacy, behaviours and choices, children and young people can play a major role in GHG reduction and emissions avoidance. Involving children systematically in the NDC and the Philippine Energy would provide a clear road map on how to meaningfully involve children and youth in shaping a low-carbon future.

To strengthen climate governance and resilience in BARMM, the region should enact the pending Bangsamoro Climate Change Act to establish the Bangsamoro Climate Change Commission and clearly define mandates and support to LGUs. Regional and local plans, evacuation protocols and monitoring systems can strengthen identification of the climate impact drivers of heat, SLR, extreme precipitation, and tropical cyclones to inform adaptation, preparedness and response. Additionally, all LGUs could be supported to adopt local disaster risk reduction and management plans, LCCAPs, CEPC, and school and health facility DRRM plans, ensuring these are grounded in climate risk assessments and include mechanisms for child and adolescent participation. Additional opportunities to strengthen sectoral policies and planning processes are in Table 18.

**Table 18. Opportunities to strengthen climate and disaster policies and planning in child-focused social sectors**

Sector	Policy and planning opportunities
Health	<ul style="list-style-type: none"> <li>• Codify the four NAP climate drivers across child health subpolicies and tools: Update MNCH, immunization microplans, and rural health unit or Barangay Health Station standard operating procedures to explicitly include heat/drought and sea level rise scenarios (e.g., coastal facility service continuity, island barangay referral and cold chain contingencies), not only floods and tropical cyclone</li> <li>• Formulate specific policies for financing climate adaptation in health, including earmarked funds and dedicated mechanisms</li> <li>• Address climate-related anxiety and mental health impacts on children and youth in policies and plans</li> <li>• Shift resource allocation from disaster response to proactive adaptation and preparedness</li> <li>• Ensure that child health, nutrition and WASH are comprehensively reflected in the Health National Action Plan under development</li> </ul>
Nutrition	<ul style="list-style-type: none"> <li>• Strengthen climate risk assessment and climate resilience objectives into the PPAN or subsequent guidance</li> <li>• Include diet diversity and climate-smart agriculture in the Overweight and Obesity Strategic Plan</li> <li>• Include climate-related allocations in nutrition budget briefs and train planners on tracking investments</li> <li>• Promote consistent municipal/city funding for nutrition activities to reduce disparities</li> </ul>
Water and Sanitation	<ul style="list-style-type: none"> <li>• Give priority to the pending act to create a Department of Water or grant the Water Resources Management Office of DENR expanded regulatory functions through legislation</li> <li>• Require climate vulnerability and risk assessments for key WASH facilities and services, and climate-proof design standards in all water and sanitation-related projects</li> <li>• Develop a capacity support programme for LGU-managed WASH systems and incentivize clustering of utilities in water-stressed areas</li> <li>• Strengthen planning for climate resilience across the full sanitation service chain (e.g., flood safe pit designs, continuity of desludging during shocks, treatment plant resilience) and hygiene behaviours and infrastructure.</li> <li>• Plan for sanitation GHG mitigation measures and propose GHG metrics for sanitation projects to contribute to the NDCs.</li> </ul>

Sector	Policy and planning opportunities
Education	<ul style="list-style-type: none"> <li>• Establish a dedicated Water Security and Sanitation Resilience Fund to channel government budget, official development assistance and climate finance into priority climate-resilient WASH programmes for highly vulnerable LGUs</li> <li>• Develop standards and indicators for climate-resilient WASH services and infrastructure. Regularly review indicators in the DILG Results-Based Monitoring and Evaluation system to incorporate new indicators from the Global Goal on Adaptation for WASH</li> <li>• Improve and centralize data on water supply, sanitation, quality and climate risks; to support LGUs in planning for an ecosystem-based WASH programme</li> <li>• Issue a guideline on strengthening the integration of climate impact drivers and use of climate risk assessments in education sector plans such as the School Disaster Risk Reduction Management Program (SDRRMP), School Improvement Plan (SIP) and guidelines, with particular focus on schools and CDC at risk of sea level rise / coastal inundation</li> <li>• Develop or update the policy on class suspension for universal adoption</li> <li>• Implement strategic resource planning, technical assistance, LGU coordination and allocation for critical school and CDC rehabilitation and new construction, prioritizing climate-vulnerable schools and CDC</li> </ul>
Child Protection	<ul style="list-style-type: none"> <li>• Ensure consistent application of climate resilience and DRRM standards in school and CDC construction and rehabilitation</li> <li>• Finalize, capacitate and issue a guideline to disseminate menu of projects as part of Climate Change Expenditure Tagging for schools and ECCDs</li> <li>• Update child protection in CEPC and LGU tools to explicitly name all four climate drivers (heat, sea level rise, extreme precipitation, extreme winds) and add trigger tables for child protection actions (e.g., surge staffing, mobile help desks, gender-based violence risk mitigation, family tracing)</li> <li>• Embed child protection service packages in evacuation centre operations, linked to hazard-specific early warnings</li> <li>• Issue a guideline on integrating civil registration restoration into routine post-event child protection workflows, prioritizing coastal and flood-prone LGUs</li> <li>• Align DRRM and child protection monitoring to tag incidents and service surges by climate driver</li> </ul>

Sector	Policy and planning opportunities
Social Protection	<ul style="list-style-type: none"> <li>• Finalize and adopt the Adaptive Shock Responsive Social Protection (ASRSP) Action Plan</li> <li>• For government streamlining of policies and strengthen the coordination between agencies responsible for climate and disaster risk financing and ASRSP for timely and adequate support</li> <li>• Explore ex-ante financing options for ASRSP programmes before a hazard strikes</li> <li>• Define the role of LGUs in co-financing ASRSP programmes and build local capacity</li> <li>• Promote human-centred digital transformation for social protection service delivery and strengthen information system integration between social protection and DRM systems</li> </ul>

### 5.3 Generating evidence for better climate action

While the government is already collecting, monitoring and analysing relevant climate data, there is a need for more specific data on how climate change impacts children in the Philippines across different sectors. This data should also be disaggregated to put on record the realities of marginalized groups like children with disabilities, mental health challenges and climate anxiety, Indigenous peoples and children on the move. Despite the existence of national climate data repositories like the CCC National Integrated Climate Change Database and Information Exchange System, there is still a need to strengthen data gathering, assessment and reporting focused on children and climate. This will enable the development of appropriate indicators, multi-year studies and research, particularly on the effects of climate change on children's well-being and development, and climate's differentiated impacts on this vulnerable population.

Risk mapping for schools and communities using geographic information systems and climate models to identify areas where children are most vulnerable is a crucial tool for ensuring child-friendly and disaster-resilient policymaking, community planning and infrastructure development especially of schools, CDCs, roads, evacuation centres, hospitals and other critical facilities.

There are also specific sectoral evidence gaps. These include:

- **Lack of research on the intersection of ECCD and climate change.** While efforts to integrate ECCD in emergencies exist, there is a notable lack of research and initiatives specifically addressing the intersection of ECCD and climate change, emergencies and disasters. Research could focus on the effects of CDC closures and disruptions due to climate shocks on the critical developmental years of young children.
- **Limited understanding of climate anxiety and mental health impacts.** While climate anxiety is already recognized, further research is needed on its prevalence, severity and coping mechanisms among children and youth. Data is needed to understand the specific impacts

of climate change and disasters on young people's school performance, social development, family dynamics or long-term mental and emotional health.

- **Limited data on climate-sensitive diseases affecting children.** There is a need for studies and surveillance systems that track the incidence and trends of climate-sensitive diseases such as dengue, diarrhoea, leptospirosis, cholera, other WASH-related diseases and respiratory infections, heat-related diseases and health impacts particularly in high-risk regions and among vulnerable child populations.
- **Insufficient research linking climate change to nutrition outcomes.** More evidence from the Philippines is needed to explore how climate variability affects child nutrition indicators, including undernutrition, overweight, and obesity and to identify climate-related drivers of food insecurity and dietary shifts.
- **Absence of national data on air pollution.** There is a lack of comprehensive data on both outdoor and indoor air pollution. Indoor air pollution from cooking fuels and practices disproportionately affects children's respiratory health. This gap limits the ability to design targeted interventions and monitor progress.
- **No national baseline for sanitation-related emissions.** Primary data collection is needed to quantify GHG emissions from sanitation systems and practices, which would support the development of climate-smart sanitation strategies and inform mitigation efforts. Current estimates of emissions from wastewater rely on IPCC models without calibration using national data.
- **Lack of evidence on rainwater harvesting impacts.** Studies should examine the effectiveness of rainwater harvesting, in line with national priorities, including how rainwater harvesting affects water availability, safety, and WASH service continuity and whether it influences hygiene behaviours in schools and communities.
- **Insufficient data on hygiene behaviour under climate stress.** Research is needed to understand how water scarcity, flooding and other climate-related disruptions affect hygiene practices, especially among children in schools and evacuation centres.
- **Limited understanding of adaptation effectiveness in social sectors.** There is a need for outcome-based studies that assess how climate adaptation measures in health, education, WASH and social protection improve children's lives, especially in terms of access, equity and resilience.
- **No framework for monitoring climate impacts in social sectors.** A national framework is needed to track climate change impacts across social sectors, aligned with the global goal on adaptation. This would enable consistent reporting, indicator development and integration into national planning and budgeting.
- **Limited research on non-economic losses such as social cohesion and mental health.** There is a need to better understand how climate shocks and disasters affect intangible aspects of well-being, including community cohesion, psychosocial resilience and mental health. Evidence in this area could inform more holistic reconstruction, rehabilitation, and

recovery efforts that go beyond economic damages and losses to address the full spectrum of impacts on children and families.

Collaboration between government, academe and youth organizations can expand knowledge on climate change and its impact on children. Academe can provide the research expertise, the children and youth organizations can bring on-ground, first-hand experiences and perspectives and government can translate research findings into inclusive and responsive policies and programmes. Children and youth perspectives, ideas and experiences can enrich these processes and lead to more effective and inclusive solutions.

## 5.4 UNICEF actions

Following consultation with the government and young people, UNICEF has embedded Climate, Environment, and Resilience (CER) as a core strategic shift in 9th Country Programme for Children (2024–2028) across all programme areas. The country programme envisions CER not just as a stand-alone theme but as a cross-cutting enabler for child rights, ensuring that climate risks and environmental sustainability are systematically addressed in sectoral programming and policy engagement. A dedicated CER outcome of the country programme operationalizes this shift by focusing on enhancing resilience of children and communities to climate and environmental shocks.

The CER programme of CPC9 aims to:

- strengthen the capacity of national and local governments and children and youth groups to finance, coordinate, regulate and deliver climate-resilient, safely managed WASH services in communities, schools, child development centres and health facilities, including through humanitarian responses.
- generate evidence on the impacts of climate, disasters and environmental hazards on children and use this evidence to enhance policies, programmes and social and behaviour change interventions, making children and communities safer and more resilient.
- support the expansion of climate and disaster risk financing options for the government; the participation of children in climate action and policymaking; the integration of business in resilience-building and safeguarding the environment; and overall efforts to make social services more shock-adaptive and climate-resilient.
- strengthen systems in social services and climate policy means integrating child-sensitive and inclusive approaches into frameworks like NDCs, localizing NAPs and operationalizing the National Climate Risk Management Framework to build resilience and ensure equitable services for children, families and communities in the face of climate change.

UNICEF will continue to support adaptation in the social sectors as a key contribution to the NAP localization process. This includes identifying ways of leveraging climate finance and government budgets for adaptation for children. Though UNICEF will contribute less to mitigation, there are still important opportunities to expand the use of renewable energy to both increase resilience of social services like health, WASH and education. UNICEF will also continue to support the integration of

children's climate vulnerabilities into government data and planning systems by leveraging the CCRI to increase equity targeting of climate adaptation.

UNICEF is already supporting NGAs to integrate CCA and DRRM into many sectors. With DepED, UNICEF is supporting climate resilience in education by strengthening school systems and curricula. Through the Change the Current program, teachers are trained to integrate CCA and mitigation into lessons, while students engage in community-based climate action projects. Complementary initiatives include solar energy training, research on greening the curriculum, and the development of guidebooks aligned with the Comprehensive School Safety Framework. These efforts are reinforced by cluster capacity-building on CCA, DRR and education in emergencies.

In health and nutrition, UNICEF is engaging with the Health and Climate Change Office of DOH to support heat-health programmes. In partnership with multiple NGAs and LGUs, UNICEF support to the WASH sector is aimed at demonstrating models for climate-resilient solutions in schools and communities, including solar-powered water systems and climate-proof sanitation facilities in vulnerable regions like Caraga and Samar. Climate-resilient child protection systems are being piloted in Valenzuela City, incorporating tele-services and capacity-building for front-line workers. In social policy, UNICEF is supporting government adaptive and shock-responsive social protection systems. A DRR-Social and Behaviour Change toolkit is under development with local partners, complemented by initiatives that amplify children's voices on climate issues. Broader efforts include institutionalizing youth participation in climate action and influencing national frameworks such as the NDC and NAP to integrate child rights and adaptation co-benefits.

UNICEF will increase action on climate and environment, building on the following strengths:

- Commitment of UNICEF to support NAP localization and the IPRR in social services, through signed workplans with DENR, CCC and other departments.
- Holistic approach of UNICEF to systems strengthening and its modelling approaches to climate-resilient social services agreed with Government of the Philippines.
- UNICEF is a trusted partner of key government departments and provides high quality technical advice.
- UNICEF acts as a convener and knowledge leader.
- UNICEF plays a lead coordination role in several clusters and working groups, presenting an opportunity to integrate climate and environment issues.
- UNICEF engages youth as champions for transformative action in climate.
- UNICEF has an office in Cotabato City to support BARMM, an area with high vulnerability and highly affected by climate hazards.
- UNICEF works at all levels of government from national, regional to local levels.
- UNICEF has strong partnerships with regional and global networks focused on climate change and social services.

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# Annex A: Climate, environment and DRR and child and youth policies and strategies

**Table 19. Overview of national policies, strategies and plans related to climate, environment, energy (CEE) and children**

Policy/strategy/ plan	Overview and linkage with CEE and children
<b>Climate</b>	
Republic Act (RA) No. 9729 or the Climate Change Act of 2009	<ul style="list-style-type: none"> <li>• Mainstreamed climate change considerations into national and local governance policies, programmes and processes, established the Philippine Climate Change Commission (CCC) and requires LGUs to develop their own Local Climate Change Action Plans (LCCAPs).</li> <li>• Explicitly acknowledges the vulnerability of local communities, particularly poor populations, women and children, to the impacts of climate change.</li> <li>• Mandates the Department of the Interior and Local Government (DILG and the Local Government Academy to focus on training programmes that address the needs of women, children and rural communities.</li> <li>• Department of Education (DepEd) is tasked with integrating climate change into school curricula.</li> </ul>
National Adaptation Plan (NAP) 2023-2050	<ul style="list-style-type: none"> <li>• Outlines medium- and long-term strategies for climate change adaptation, with a focus on eight key sectors: agriculture, fisheries and food security; water resources; health; ecosystems and biodiversity; cultural heritage, population displacement and migration; land use and human settlements; livelihoods and industries; and energy, transport and communications.</li> <li>• Prioritizes the welfare of vulnerable groups, including children, in the design and implementation of climate adaptation solutions.</li> <li>• Involving children and youth in climate action is identified as a critical strategy in NAP implementation.</li> </ul>
National Climate Change Action Plan (NCCAP) 2011–2028	<ul style="list-style-type: none"> <li>• Outlines medium- and long-term strategies for climate change adaptation with seven thematic outcomes: (1) Food Security; (2) Water sufficiency; (3) Ecosystem and Environmental Stability; (4) Human Security; (5) Climate-smart Industries and Services; (6) Sustainable Energy; and (7) Knowledge and Capacity Development.</li> </ul>

Policy/strategy/ plan	Overview and linkage with CEE and children
	<ul style="list-style-type: none"> <li>• Aims to build adaptive capacities and resilience of marginalized groups.</li> </ul>
Nationally Determined Contributions Implementing Plan (NDCIP) 2020-2030	<ul style="list-style-type: none"> <li>• Outlines commitment to a climate-smart, sustainable future and sets out actions to reduce greenhouse gas emissions from sectors such as agriculture, waste, industry, transport and energy.</li> <li>• Highlights the importance of gender equality and inclusion, recognizing that women and girls are particularly vulnerable to climate change yet play a crucial role in sustainable development and economic growth.</li> <li>• The NDC Technical Working Group (TWG) identified the National Youth Commission and the youth sector as key members of the TWG and reference groups, respectively, securing youth representation in the NDCIP development.</li> </ul>
Environment	
Republic Act (RA) No. 9512 or the National Environmental Awareness and Education Act of 2008	<ul style="list-style-type: none"> <li>• Emphasizes the right of Filipinos to a balanced and healthful ecology.</li> <li>• Mandates the promotion of environmental education in schools and the implementation of public awareness programmes to foster environmental protection and ecological balance for sustainable development.</li> </ul>
Republic Act (RA) No. 9275 or the Clean Water Act of 2004	<ul style="list-style-type: none"> <li>• Aims to protect the country's water bodies from pollution from land-based sources. It establishes a multi-agency coordination mechanism and mandates wastewater treatment, discharge permitting and water quality standards. It also created the Water Quality Management Fund to support projects and activities that improve and protect water quality in designated water bodies.</li> <li>• Created the National Sewerage and Septage Management Program under DPWH to serve as the national framework in guiding LGUs in implementing sewerage and septage projects, with access to technical assistance and possible financing support.</li> </ul>
Presidential Decree No. 856 Code on Sanitation of the Philippines (1975)	<ul style="list-style-type: none"> <li>• Provides a comprehensive sanitation standards covering waste disposal, food safety, environmental sanitation and public health. It assigns DOH as the primary authority for implementation and sets regulatory requirements for LGUs, institutions and private establishments.</li> </ul>

Policy/strategy/ plan	Overview and linkage with CEE and children
<p>Republic Act (RA) No. 9003 or the Ecological Solid Waste Management Act of 2000</p>	<ul style="list-style-type: none"> <li>• A national framework for solid waste reduction, segregation, recycling and disposal.</li> <li>• Mandates LGUs to establish sanitary landfills, materials recovery facilities and enforce waste diversion targets. Encourages citizen participation and producer responsibility to reduce ecological impacts.</li> </ul>
<p>Writ of Continuing Mandamus based on the 2008 ruling of the Philippine Supreme Court (G.R. Nos. 171947-48, Metropolitan Manila Development Authority, et al. vs. Concerned Residents of Manila Bay, et al.)</p>	<ul style="list-style-type: none"> <li>• It institutionalized judicial monitoring of environmental enforcement to clean up, rehabilitate and preserve Manila Bay.</li> <li>• It requires 13 national government agencies—including DENR, DOH, DepEd, DPWH, MWSS, LWUA, PNP, DILG, DA and others, to submit periodic reports to the Supreme Court on compliance.</li> </ul>
Energy	
<p>Philippine Energy Plan (PEP) 2023-2028 and the National Renewable Energy Program (NREP) 2020-2040</p>	<ul style="list-style-type: none"> <li>• Guiding framework for developing its energy sector, with a key focus on establishing resilient, green, and climate-proof energy infrastructure and aims to strengthen the energy sector's capacity to withstand climate impacts.</li> <li>• Emphasizes the pivotal role of renewable energy in mitigating climate change, highlighting its importance for a sustainable and low-carbon energy future.</li> </ul>
DRR	
<p>Republic Act (RA) No. 10121 or the Philippine Disaster Risk Reduction and Management Act</p>	<ul style="list-style-type: none"> <li>• Marked a shift from a focus on “relief and recovery” to disaster risk reduction or “prevention and resilience building”.</li> <li>• Mandates Local Disaster Risk Reduction and Management Offices to ensure the immediate provision of food, shelter and medical supplies, particularly for women and children, in the aftermath of disasters.</li> <li>• Calls for the integration of DRR education into school curricula, Sangguniang Kabataan (SK) programmes, formal and non-formal learning, technical-vocational programmes, indigenous learning and out-of-school youth courses.</li> <li>• Local government units and SK councils required to engage youth in disaster risk reduction efforts.</li> </ul>

Policy/strategy/ plan	Overview and linkage with CEE and children
Republic Act (RA) No. 10821 or the Children's Emergency Relief and Protection Act (2016)	<ul style="list-style-type: none"> <li>• Provides for the protection and relief of children, pregnant women and lactating mothers during emergencies. The law stipulates that a school or Child Development Center (CDC) may only be used as an evacuation centre if no other suitable structure is available and sets out limits for their use.</li> <li>• Mandates the establishment of child-friendly spaces, provision of psychosocial support and implementation of measures to prevent child trafficking, child labour and exploitation during disasters.</li> <li>• Outlines responsibilities for emergency relief and protection, ensuring that children's needs are prioritized.</li> </ul>
National Disaster Risk Reduction and Management Plan 2020-2030	<ul style="list-style-type: none"> <li>• A strategic framework aimed at strengthening resilience to both natural and human-induced hazards. It integrates Disaster Risk Reduction and Management (DRRM) with Climate Change Adaptation (CCA), focusing on (i) Disaster Prevention and Mitigation, (ii) Disaster Preparedness, (iii) Disaster Response, and (iv) Disaster Rehabilitation and Recovery.</li> <li>• Emphasizes that the distinctive needs of vulnerable and marginalized groups including children and youth must be prioritized in planning activities, and their unique capabilities and contributions must be considered.</li> </ul>
Children/Youth	
Child 21 Framework	<ul style="list-style-type: none"> <li>• A strategic guide aimed at promoting and protecting children's rights in the 21st century. It serves as a road map for ensuring a quality life for Filipino children by 2025.</li> <li>• Adopting a life cycle and right-based approach, the framework seeks to align family, community, and national efforts to fully realize children's rights by the year 2025.</li> </ul>
4th National Plan of Action for Children (NPAC) 2023-2028	<ul style="list-style-type: none"> <li>• Translates the vision of Child 21 into actionable, time-bound plans aimed at progressively advancing children's rights to survival, development, protection and participation. Plans focus on child protection, child participation and mitigating the effects of climate change on children.</li> <li>• Envisions that by 2028, all children live in a safe, clean, climate and disaster-resilient environment.</li> <li>• Chapter 5, titled "Children and Climate Change," focuses on WASH, and the empowerment of communities, while highlighting the impacts of climate change, disaster risks and environmental degradation on children.</li> </ul>

Policy/strategy/ plan	Overview and linkage with CEE and children
Philippine Youth Development Plan (PYDP) 2023-2028	<ul style="list-style-type: none"> <li>• Focuses on 10 key Centres of Participation: health, education, economic empowerment, social inclusion and equity, governance, active citizenship, peacebuilding and security, global mobility, environment and agriculture. The PYDP's Center of Participation on Environment specifically addresses Environment, Climate Change and Disaster Risk Reduction.</li> <li>• Envisions a future where Filipino youth enjoy food security, and a safe, liveable and climate-resilient environment.</li> <li>• Aims to have more youth engaged in advocating for, implementing and monitoring environment-related policies and legislations, while becoming champions of climate change adaptation and disaster risk reduction.</li> </ul>
Republic Act (RA) No. 8044 or the Youth in Nation-Building Act and Republic Act (RA) No. 10742 or the Sangguniang Kabataan Reform Act of 2015	<ul style="list-style-type: none"> <li>• Youth in Nation-Building Act underscores the crucial role of young people in nation-building and encourages their active involvement in initiatives that promote character-building, stewardship of natural resources.</li> <li>• Sangguniang Kabataan (SK) Reform Act mandates the SK to collaborate with Local Youth Development Councils to plan and implement various development programmes, including climate change adaptation, disaster risk reduction, youth employment, health, gender sensitivity and sports development.</li> <li>• The Sangguniang Kabataan's Comprehensive Barangay Youth Development Plan and the Annual Barangay Investment Program must prioritize environmental protection, climate change adaptation and disaster resilience.</li> </ul>
Presidential Proclamation on Youth in Climate Action and Disaster Resilience Day	<ul style="list-style-type: none"> <li>• Designates November 25 of each year as the "National Day for Youth in Climate Action" and puts a spotlight on the importance of youth participation in creating climate-resilient and climate-smart sectors and communities.</li> <li>• Encourages the involvement of the national government, local government units, private sector, non-governmental organizations, and other stakeholders to organize relevant programmes, projects and activities to celebrate the day and empower young people in climate action.</li> </ul>

Policy/strategy/ plan	Overview and linkage with CEE and children
AmBisyon Natin 2040	<ul style="list-style-type: none"> <li>• Encapsulates the shared aspiration of Filipinos for themselves and the country's future over the next 25 years.</li> <li>• Emphasizes the need for parents, families, and the government to collaborate in securing a future where younger generations enjoy a “strongly rooted, comfortable and secure life”.</li> </ul>
Philippine Development Plan (PDP) 2023-2028	<ul style="list-style-type: none"> <li>• Chapter 15 of the Philippine Development Plan outlines the country's overarching climate change agenda, with key initiatives aimed at accelerating climate action and strengthening disaster resilience.</li> <li>• Includes strategies to enhance the capacity of local government units (LGUs) and communities in disaster prevention and preparedness to enable vulnerable communities and populations to build forward better.</li> </ul>

# Annex B. Sectoral initiatives related to climate and children

## Education

**Table 20. Overview of education related policies and initiatives and focus on climate, environment and DRR and children**

Policy/strategy/plan	Climate, environment and DRR and/or child focus
<b>Policies and strategies</b>	
Basic Education Development Plan 2030	<ul style="list-style-type: none"> <li>Identifies Disaster Risk Reduction and Management (DRRM) as a critical aspect towards the resilience and sustainability of the education sector. Recognizes the significance of addressing hydrometeorological, geophysical and armed conflict hazards to ensure the safety, well-being and continuous learning of children, youth and education personnel.</li> <li>Outlines measures for building resilience, such as providing necessary resources like capacity development, supplies, equipment, Early Warning Systems and funding to ensure effective disaster preparedness, response, rehabilitation and recovery measures.</li> <li>Encourages Filipino learners to develop essential 21st-century skills, including Life and Career Skills with focus on Sustainability to ensure that students make decisions and take actions that not only allow them to thrive today but also safeguard the well-being of future generations.</li> </ul>
Quality Basic Education Development Plan 2025-2035	<ul style="list-style-type: none"> <li>Climate change is identified as a driver that needs to be considered in education system planning and future-readiness.</li> <li>Extreme weather events are highlighted as a cause of school infrastructure damage and disruption of essential services.</li> <li>Vulnerability of education facilities to climate risks is recognized as a barrier to safe and continuous learning.</li> </ul>
Class and Work Suspensions in Schools during Disasters and Emergencies - DepEd Order No. 22, s. 2024-2025	<ul style="list-style-type: none"> <li>Provides updated guidelines to standardize flexible responses and ensure the continuity of education during emergencies.</li> <li>Prioritizes the safety of students and staff, emphasizes effective communication and promotes alternative learning methods when needed.</li> <li>Establishes criteria for school suspensions due to weather-related events, health crises and other emergencies.</li> </ul>

Policy/strategy/ plan	Climate, environment and DRR and/or child focus
<b>Policies and strategies</b>	
DepEd Standard and Resilient School Building Design - DepEd Orders No. 64, s. 201723 and No. 006, s. 202124	<ul style="list-style-type: none"> <li>Establishes the Minimum Performance Standards and Specifications for DepEd School Buildings to ensure resilience against heavy rains, typhoons and earthquakes.</li> <li>School buildings must be able to endure a minimum wind speed of 250 kilometres per hour, be fully sealed against rainwater intrusion, comply with Seismic Zone 4 standards for earthquake resilience, and be elevated at least 0.20 metres above the appraised flood level to ensure protection against flooding.</li> </ul>
DepEd Order Nos. 21 and 37, s. 2015: Comprehensive DRRM in Basic Education Framework	<ul style="list-style-type: none"> <li>Institutionalized DRRM systems and protocols and serves as the main guidance for DRRM-related work. An omnibus policy that aims to update these DOs and will cover CCA-DRR-Education-in-Emergencies is still in draft form within DepEd.</li> </ul>
DepEd Order No. 57, s. 1995: Site Selection	<ul style="list-style-type: none"> <li>The order focuses on acquisition and titling of school sites; it does not mention climate change or DRR. It issues “guidelines... for the acquisition of school sites” and discusses “Donation of land” and “Contract of Usufruct.”</li> </ul>
DepEd Order No. 23, s 2015: Student-led School Watching and Hazard Mapping DepEd Order No. 72, s. 2003 Establishment of the Youth for Environment in Schools (YES) Organization	<ul style="list-style-type: none"> <li>Establishes learner engagement in hazard identification and makes it an annual activity to engage learners in the implementation of disaster risk reduction and management (DRRM).</li> <li>Creates a school-based organization for environmental action and sets objectives that include awareness and programmes on environment/ecology. There is no explicit mention of “climate change” or “DRR” in the order text.</li> </ul>
DepEd Order No. 10, s, 2016: Policy and Guidelines for the Comprehensive Water, Sanitation and Hygiene in Schools (WinS) Program	<ul style="list-style-type: none"> <li>Aims to “improve equitable access to safe water, adequate toilets, and hand washing facilities” and “improve hygiene and sanitation practices.”</li> <li>Includes measures relevant to health risk reduction in schools: “ensure that schools are kept clean and safe through school-based solid waste management, proper drainage, the elimination of breeding grounds for mosquitoes to prevent vector-borne diseases, and food sanitation.” It does not mention climate change.</li> </ul>

Policy/strategy/ plan	Climate, environment and DRR and/or child focus
Policies and strategies	
<p>DILG–DepEd Joint Memorandum Circular No. 1, series of 2016: Water, Sanitation and Hygiene (WASH) in Early Childhood Care and Development (ECCD)</p>	<ul style="list-style-type: none"> <li>• Sets a goal of improve children's access to clean and sustainable water supply, functional toilets, sanitation and hygiene facilities in early learning centres with components including group handwashing facilities, hygiene kits, functional toilets and water that is safe, accessible and sufficient; and clean and safe environments for play and learning. No explicit mention of climate change or DRR.</li> </ul>
<p>Early Childhood Care and Development System Act RA (12199)</p>	<ul style="list-style-type: none"> <li>• Positions ECCD as sustainable even during times of emergency; does not explicitly mention climate change or DRR but references emergencies and system sustainability.</li> </ul>
<p>National Environmental Awareness and Education Act (RA 9512, 2008)</p>	<ul style="list-style-type: none"> <li>• Mandates environmental education at all levels and specifies content on environmental threats and conservation. Environmentally focused rather than climate change or DRR.</li> </ul>
<p>ECCD Council Advisory 1, series of 2023, Center-Based Programs Implemented in Alternative Venues (CBPAV)</p>	<ul style="list-style-type: none"> <li>• Cites weather/heat hazards and learning continuity and DepEd's reiteration of modular distance learning during "Natural Disasters, Power Outages/Power Interruptions and Other Calamities."</li> <li>• Directs use of alternative venues during disasters (Center-Based Programs Implemented in Alternative Venues) in situations where centres are available but temporarily inaccessible due to closure brought about by disasters, health and other emergencies.</li> <li>• Advises LGUs to assess weather and determine the most appropriate learning modality when necessary.</li> </ul>

## Health

**Table 21. Overview of health-related policies and initiatives and focus on climate, environment and DRR and children**

Policy/strategy/ plan	Climate, environment and DRR and/or child focus
<b>Policies and strategies</b>	
National Adaptation Plan for Health (HNAP)	Under development by DOH to create a climate-resilient, low-carbon health system road map.
National Objectives for Health 2023-2028 and DOH's Eight-Point Agenda for Health	<ul style="list-style-type: none"> <li>• Action Agenda 4 ensures resilient health systems prepared to respond to health crises and emergencies.</li> <li>• Includes the strengthening of disaster risk reduction and management (DRRM) in the health sector and the establishment of green health facilities.</li> </ul>
National Environmental Health Action Plan (NEHAP) 2023-2030	<ul style="list-style-type: none"> <li>• Recognizes the growing threat of climate change and its exacerbating effects on environmental health issues. Climate change is integrated as a cross-cutting concern throughout the plan.</li> <li>• Aims to embed green and climate adaptation practices in healthcare delivery; incorporate climate change resilience into the health sector's social and behaviour change communication strategies; prioritize vulnerable populations, such as children, in testing and screening; and build the health sector's capacity on environmental and climate-related disasters and emergencies.</li> <li>• Children and other marginalized groups in schools, communities and workplaces will be key areas for research, assessment of environmental health awareness, needs and concerns.</li> </ul>
Philippine Roadmap on Health and Climate Change 2025 - 2050	<ul style="list-style-type: none"> <li>• Strategic integration of climate and health, outlining a phased transformation of the Philippine health system into climate resilience, low-carbon and equitable system with focused pillars for action on workforce, data, financing, service delivery, infrastructure, community engagement and governance.</li> <li>• Dual focus on Adaptation (e.g., disaster-resilient health services, early warning systems) and Mitigation (e.g., emissions tracking, green infrastructure, sustainable procurement) to align with national and global commitments including the NAP.</li> <li>• Proposed a robust governance structure, led by the Health and Climate Change Office of the Department of Health (DOH), to effectively implement, monitor and mobilize resources across national, regional and local levels.</li> </ul>

Policy/strategy/ plan	Climate, environment and DRR and/or child focus
<b>Policies and strategies</b>	
Green and Safe Health Facilities Strategic Plan 2030	<ul style="list-style-type: none"> <li>Created to minimize the health sector's carbon footprint while maintaining quality healthcare services. Sets minimum standards for green and safe practices in hospitals and other health facilities. Focuses on climate-proofing, reducing the health impacts of disasters, and promoting the greening of facilities, including energy efficiency, water conservation, sustainable cooling systems and eco-friendly healthcare waste management.</li> <li>The Green and Safe Health Facilities Strategic Plan 2030 aims to ensure that all health facilities and hospitals in the Philippines adopt policies and programmes that reduce carbon emissions and enhance their ability to adapt to climate change and disasters towards a climate-smart healthcare delivery system.</li> <li>Green Assessment Rating System evaluates and recognizes hospitals and health facilities based on their compliance with green, safe and climate-resilient standards. Facilities that achieve at least three green stars are recognized as Green, Safe and Climate-Resilient Health Facilities.<sup>191</sup></li> </ul>
Philippine Roadmap for Sustainable, Safe and Universal Access to Water, Sanitation, Hygiene and Waste in Health Facilities 2030	<ul style="list-style-type: none"> <li>Emphasizes integration of WASH and waste management services into health planning, financing and monitoring systems, with a focus on improving infection prevention and control, maternal and newborn health and overall service quality.</li> <li>Promotes equitable and inclusive access to essential WASH services at health facilities, especially in underserved and rural areas.</li> <li>Improved WASH services at health facilities are aspired to reduce environmental contamination, support the antimicrobial resilience control and enhanced preparedness for climate-related emergencies such as floods.</li> </ul>
Republic Act No. 11223 "Universal Health Care (UHC) Act", and its Implementing Rules and Regulations	<ul style="list-style-type: none"> <li>Guarantees all Filipinos automatic enrolment in the National Health Insurance Program enabling a full spectrum of access to health services, from preventive to palliative cares, without financial hardship.</li> <li>Supports health systems resilience during emergencies and disasters by mandating the continuity of essential health services even in crises.</li> <li>Contributes to climate resilience by promoting low-carbon, disaster-resilient health infrastructure and sustainable service delivery models.</li> </ul>

<sup>191</sup> DOH Green documents.

Policy/strategy/ plan	Climate, environment and DRR and/or child focus
Policies and strategies	
<p>Republic Act No. 11332 “Mandatory Reporting of Notifiable Diseases and Health Events of Public Health Concern Act”, and its Implementing Rules and Regulations</p>	<ul style="list-style-type: none"> <li>• Establishes a legal framework for mandatory reporting, surveillance and response to notifiable diseases, aligned with the 2005 International Health Regulations.</li> <li>• Recognizes epidemics and public health emergencies including those triggered by natural disasters, chemical spills and radiological events as threats to national security, while integrates public health into the disaster risk reduction and management (DRRM).</li> <li>• Explicitly includes environmental agents as triggers for public health concern which are relevant to climate change by enabling surveillance and response to climate-sensitive diseases and environmental threats.</li> </ul>
<p>Republic Act No. 10152 “Mandatory Infants and Children Health Immunization” Act</p>	<ul style="list-style-type: none"> <li>• Currently, notifiable diseases provided by the Act are classified into five categories: (a) emerging and re-emerging infectious diseases (e.g., COVID-19, SARS, MERS, Ebola, Avian Influenzas); (b) Diseases for Elimination and Eradication (e.g., Measles, Polio, Malaria, TB); (c) Epidemics and Outbreaks (e.g., Dengue, Cholera); (d) Environmental, Chemical, Biological, Radioactive, and Nuclear Agents; and (e) Syndromes and Conditions of Public Health Concern (e.g., Acute Flaccid Paralysis, Severe Acute Respiratory Illnesses).</li> <li>• Mandates the free provision of basic immunization services to all Filipino infants and children up to five years old.</li> <li>• Provides for vaccination of children with vaccine-preventable diseases such as TB, diphtheria, tetanus, pertussis, polio, measles/mumps/rubella, hepatitis B and H. influenza type B.</li> </ul>
<p>Philippine Integrated Disease Surveillance and Response</p>	<ul style="list-style-type: none"> <li>• Standardized disease surveillance system integrating both incidence-based and event-based surveillances.</li> <li>• Enhances the health sector’s capacity to respond to epidemics and health emergencies, while enabling real-time monitoring of disease outbreaks during emergencies such as typhoons, floods and other hazards.</li> <li>• Climate-sensitive diseases such as dengue, cholera, and leptospirosis are tracked, supporting adaptive health planning while providing data to inform climate-resilient interventions.</li> </ul>

## Nutrition

**Table 22. Overview of nutrition-related policies and initiatives and focus on climate, environment and DRR children**

Policy/strategy/ plan	Climate, environment and DRR and/or child focus
<b>Policies and strategies</b>	
Philippine Plan of Action for Nutrition 2023-2028	<ul style="list-style-type: none"> <li>• Underscores the critical need for climate-adaptive interventions to address food security and improve nutrition, with a strong focus on the most vulnerable populations, particularly children.</li> <li>• Advocates for the introduction of climate-resilient technologies and systems, promotion of sustainable and climate-smart agricultural practices, and development of climate-resilient irrigation systems to ensure increased availability of food supply.</li> </ul>
Nutrition in Emergencies Strategic Plan 2023-2028 <sup>192</sup>	<ul style="list-style-type: none"> <li>• Focuses on enhancing nutritional resilience in communities during disasters and emergencies, ensuring that vulnerable populations, especially children, have access to adequate nutrition even in times of crisis.</li> </ul>
Strategic Plan for Addressing Overweight and Obesity (2023-2028)	<ul style="list-style-type: none"> <li>• Primarily public health-oriented, emphasizing policy reform, multi-sector coordination, health promotion, food environment regulation and behavioural change. Climate-related determinants of diet, food systems or physical activity are absent from the analysis and strategies.</li> </ul>

<sup>192</sup> Awaiting approval from the National Nutrition Council Governing Board.

## Water, sanitation and hygiene (WASH)

**Table 23. Overview of WASH related policies and initiatives) and focus on climate, environment and DRR and children**

Policy/strategy/ plan	Climate, environment and DRR and/or child focus
<b>Policies and strategies</b>	
Philippine Water Supply and Sanitation Master Plan (PWSSMP)	<ul style="list-style-type: none"> <li>• Guided by the principle of Integrated Water Resources Management (IWRM), serves as a strategic guide towards achieving universal access to safe, sufficient, affordable and sustainable water supply, sanitation and hygiene by 2030. The plan outlines activities, responsible agencies, and required resources to address the country's water-related challenges.</li> <li>• Recognition of the impact of climate change on the water sector, particularly exacerbating the growing gap between water supply and demand.</li> <li>• Plan is focused on Building Climate Resiliency. This includes using climate change adaptation and disaster risk reduction (DRR) strategies to design and construct climate-resilient WASH facilities.</li> </ul>
National Building Code of the Philippines (PD 1096)	<ul style="list-style-type: none"> <li>• Key framework for promoting resource efficiency and sustainability in the planning, design, construction, operation and maintenance of buildings.</li> <li>• The code aims to improve indoor environmental quality and reduce the environmental and health impacts of buildings.</li> </ul>
Executive Order No. 22 (2023): Creating the Water Resources Management Office in the Department of Environment and Natural Resources (DENR)	<ul style="list-style-type: none"> <li>• Creates the Water Resources Management Office to unify planning, coordination, and governance of water resources under the DENR, and harmonize overlapping mandates across agencies.</li> <li>• Establishes an institutional anchor for integrated water resources management planning.</li> </ul>
Integrated Water Resources Management Plan (IWMP)	<ul style="list-style-type: none"> <li>• It is a strategic framework for coordinated management of water resources across competing uses and ecosystems.</li> <li>• Focuses on basin-wide approaches, water allocation efficiency and demand management.</li> <li>• Explicitly recognizes climate variability and extreme events as key risks, embedding climate resilience in water allocation, watershed protection and risk-based planning.</li> </ul>

Policy/strategy /plan	Climate, environment and DRR and/or child focus
<b>Policies and strategies</b>	
	<ul style="list-style-type: none"> <li>• Included sanitation as a key performance indicator of water service providers to support expansion of sanitation coverage.</li> </ul>
National Environmental Health Action Plan (NEHAP) 2023-2030	<ul style="list-style-type: none"> <li>• Explicitly integrates climate change as a cross-cutting determinant of environmental health.</li> <li>• Among the priority actions included protecting communities from extreme heat, preparing for disasters and making water and sanitation systems more resilient. It also pushes for reducing pollution and promoting more sustainable ways of using resources.</li> </ul>
DOH Administrative Order No. 2019-0054: Philippines Approach to Sustainable Sanitation	<ul style="list-style-type: none"> <li>• Establishes a phased approach to guide LGUs in progressing from basic sanitation to sustainable, safely managed sanitation. Sets service level benchmarks and defines institutional roles for implementation. Encourages sanitation market development and community engagement.</li> <li>• First sanitation-specific frameworks in the Philippines to explicitly integrate climate change considerations.</li> <li>• It encourages LGUs to create an enabling environment that fosters a sustainable sanitation programme in communities, and to mainstream climate change adaptation and disaster risk reduction management.</li> </ul>
DBM-NEDA Joint Circular No. 2024-02: Revised Policy Guidelines and Procedures for the Formulation of the Three-Year Rolling Infrastructure Program	<ul style="list-style-type: none"> <li>• The Water Sector is explicitly listed among the priority Programme Convergence Budgeting programmes for proposed future budgets.</li> <li>• Explicitly includes climate change adaptation and DRR works among eligible infrastructure categories.</li> </ul>
Executive Order No. 22 (2023): Creating the Water Resources Management Office in the Department of Environment and Natural Resources (DENR)	<ul style="list-style-type: none"> <li>• Cites climate impacts among water sector challenges.</li> <li>• Mandates WRMO to integrate and harmonize efforts “to ensure availability and sustainable management of water resources in the whole country.”</li> </ul>

Policy/strategy /plan	Climate, environment and DRR and/or child focus
<b>Policies and strategies</b>	
DOH Administrative Order 2010-0021: “Sustainable Sanitation as a National Policy and a National Priority Program of the Department of Health”	<ul style="list-style-type: none"> <li>• Sets the target for the country to achieve universal access to safe and adequate sanitary facilities, including mechanisms to insitutionalize sustainability and normalize proper hygiene practices by 2028.</li> <li>• Defines sustainable sanitation as both a process and system that protects and promotes human health, minimizes environmental degradation and the depletion of resources.</li> <li>• Promotes sanitation programme for emergency situations and encourages integration WASH in DRR across all govt levels.</li> </ul>
DOH Administrative Order No. 2014-0027: National Policy on Water Safety Plan for All Drinking-Water Service Providers	<ul style="list-style-type: none"> <li>• Links water safety risks to climate change &amp; extreme weather at a high level.</li> <li>• Directs the use of water safety plan as a risk management approach for all water service providers.</li> </ul>
DOH Administrative Order No. 2017-0010: Philippine National Standards for Drinking Water of 2017	<ul style="list-style-type: none"> <li>• Updates standards recognizing “the need for water quality standards during emergency situations.”</li> <li>• Defines drinking water scope relevant to emergency/public health protection.</li> <li>• Does not explicitly mention climate change or DRR.</li> </ul>
DOH Administrative Order No. 2020-0032: National Policy on WASH in Emergencies	<ul style="list-style-type: none"> <li>• Notes Philippines’ hazard exposure and calls to institutionalize cluster governance. Establishes the DOH as lead of the Health Cluster, with WASH as one of its sub clusters, at all levels.</li> </ul>
Unified Resource Allocation Framework for Water Resources Projects under the Department of Budget and Management (DBM) Financing Guidelines	<ul style="list-style-type: none"> <li>• NEDA (now DEPDev) Committee on Infrastructure (INFRACOM) adopts the URAF.</li> <li>• The 2024 DBM led JMC frames resilient utilities and climate action, essential to achieving water security and adapting and mitigating the effects of climate change.</li> <li>• Notes the financing context for shocks, particularly that subsidies will be needed at times of disasters and other crises.</li> </ul>

Policy/strategy /plan	Climate, environment and DRR and/or child focus
Policies and strategies	
<p>Presidential Decree No. 1067: The Water Code of the Philippines</p>	<ul style="list-style-type: none"> <li>• Establishes State stewardship of water resources: "All waters belong to the State."</li> <li>• Places utilization, development, conservation and protection of water resources under the National Water Resources Council.</li> </ul>
<p>Republic Act (RA) No. 9275 or the Clean Water Act of 2004</p>	<ul style="list-style-type: none"> <li>• Aims to protect the country's water bodies from pollution from land-based sources. It establishes a multi-agency coordination mechanism and mandates wastewater treatment, discharge permitting and water quality standards. It also created the Water Quality Management Fund to support projects and activities that improve and protect water quality in designated water bodies.</li> <li>• Created the National Sewerage and Septage Management Program under DPWH to serve as the national framework in guiding LGUs in implementing sewerage and septage projects, with access to technical assistance and possible financing support.</li> </ul>
<p>Presidential Decree No. 856 Code on Sanitation of the Philippines (1975)</p>	<ul style="list-style-type: none"> <li>• Provides a comprehensive sanitation standards covering waste disposal, food safety, environmental sanitation and public health. It assigns DOH as the primary authority for implementation and sets regulatory requirements for LGUs, institutions and private establishments.</li> </ul>

## Social Policy

**Table 24. Overview social policy-related policies and initiatives and focus on climate, environment and DRR and children**

Policy/strategy/ plan	Climate, environment and DRR and/or child focus
<b>Policies and strategies</b>	
Social Protection Operational Framework and Strategy of the Philippines - Department of Social Welfare and Development (DSWD)	<ul style="list-style-type: none"> <li>Recognizes that climate impacts exacerbate vulnerability and poverty by displacing households, causing injury, death, disease, crop losses and asset damage.</li> <li>Emphasizes measures, which address immediate needs and foster long-term resilience in the face of climate change.</li> <li>Social protection tools such as social service provision, cash and non-cash social transfers, credit, asset transfer and protection, social and crop insurance and public work programmes are vital for safeguarding vulnerable communities from climate risks, ultimately benefiting children and youth.</li> </ul>
Social Protection Plan 2023-2028 - Department of Social Welfare and Development (DSWD) and the National Economic Development Authority (NEDA)	<ul style="list-style-type: none"> <li>Aims to fortify the Philippines' social protection system by addressing risks, including natural, health, climate and human-induced hazards.</li> <li>Underscores the role of poverty and environmental hazards as key drivers of vulnerability.</li> <li>Focuses on three strategic areas: (i) implementation of the Social Protection Floor;<sup>193</sup> (ii) development of Adaptive and Shock-Responsive Social Protection Programs, and (iii) Rationalization, Modernization and Integration of the social protection System.</li> </ul>
Roadmap on Adaptive and Shock Responsive Social Protection, adopted by NDRRMC	<ul style="list-style-type: none"> <li>The objective of an adaptive and shock responsive social protection system is to build the resilience of households, with special attention on the poor and vulnerable. It does this by ensuring timely and effective responses to risks and shocks. For example, temporarily expanding select social protection instruments would better protect populations from risks and shocks and maximize the effectiveness of scarce response resources.</li> </ul>
Republic Act No. 11310: An Act Institutionalizing the Pantawid Pamilyang Pilipino Program (4Ps)	<ul style="list-style-type: none"> <li>The Declaration of Policies emphasizes social development goals—e.g., “Break the intergenerational cycle of poverty through investment in human capital and improved delivery of basic services to the poor, particularly education, health, nutrition, and early childhood care and development; ... Ensure healthy lives and promote well being for all.”</li> </ul>

<sup>193</sup> The Social Protection Floor guarantees basic income security for children, ensuring access to essential services like maternal and child healthcare, nutrition, education, and basic goods, with special focus on children with disabilities or special needs, indigenous peoples and gender differences.

Policy/strategy/ plan	Climate, environment and DRR and/or child focus
<b>Policies and strategies</b>	
	<ul style="list-style-type: none"> <li>• Focus is on human capital outcomes; no explicit mention of “climate change” or “disaster” in the Act.</li> </ul>
Republic Act No. 12287 (2025): Declaration of State of Imminent Disaster Act	<ul style="list-style-type: none"> <li>• Establishes anticipatory, risk based policy to implement anticipatory action and response measures to lessen the impact of a disaster.</li> <li>• Aims to bridge the gap between long-term disaster risk reduction efforts and reactive humanitarian response.</li> <li>• Establishes various mechanisms that ensure transparency and accountability in disaster and climate risk governance.</li> </ul>
Draft Adaptive and Shock Responsive Social Protection (2026-2028)	Under development.
Sustainable Livelihood Program	<ul style="list-style-type: none"> <li>• Capability building programme for poor, vulnerable and marginalized households and communities to help improve their socio economic conditions</li> </ul>
DSWD Emergency Cash Transfer Program	<ul style="list-style-type: none"> <li>• Policy basis ties emergency cash transfer to DRRM and climate: DSWD guidelines mandate adopting a “disaster risk reduction and management approach... in lessening the socioeconomic and environmental impacts of disasters including climate change.”</li> </ul>

## Child Protection

**Table 25. Overview child protection related policies and initiatives and focus on climate, environment and DRR and children**

Policy/strategy/ plan	Climate, environment and DRR and/or child focus
<b>Policies and strategies</b>	
National Plan of Action for Children (NPAC) and the Comprehensive Emergency Program for Children	<ul style="list-style-type: none"> <li>• Aims to protect children in the context of climate change and disasters.</li> <li>• Includes measures to restore civil documents for families and children affected by disasters and conduct child-responsive training among local government officers, school personnel, rescuers and disaster responders.</li> <li>• Monitoring and reporting disaster situations must be undertaken to deliver specific basic services for pregnant women, lactating mothers, children.</li> <li>• Key interventions will build on ongoing child protection systems strengthening investments such as the MAKABATA Program, strengthening CPU/TeleCPU platforms, and enhancing local case management protocols to ensure institutionalized, scalable mechanisms that address climate-induced child protection risks.</li> </ul>
Evacuation Center Management, and Republic Act (RA) No. 12076 or the Ligtas Pinoy Centers Act (2024 Department of Social Welfare and Development, DSWD)	<ul style="list-style-type: none"> <li>• Evacuation centres should be equipped with mobile command centres and power generators. LGUs are required to help within 24-48 hours, while DSWD ensures that pre-positioned supplies and mobile kitchens are available to provide hot meals. LGUs are required to set up child-friendly spaces, from emergency to recovery.</li> <li>• The Ligtas Pinoy Centers Act mandates the establishment of fully equipped permanent evacuation centres in every city and municipality across the country. These evacuation centres must be climate and disaster resilient, capable of withstanding typhoon winds of up to 300 km/h and seismic activity up to magnitude 8.0. These centres will also provide secure, temporary accommodation for children, individuals and families affected by disasters, ensuring their safety and well-being during emergencies.<sup>194</sup></li> </ul>

<sup>194</sup> <https://www.pna.gov.ph/index.php/articles/1239524#:~:text=Marcos%20Jr.,of%20up%20to%20magnitude%208.0.>

## Climate Finance

**Table 26. Overview of climate finance related frameworks, guidelines and initiatives**

Policy/strategy/ plan	Climate, environment and DRR and/or child focus
<b>Policies and strategies</b>	
Sustainable Finance Roadmap and Guiding Principles	Provides a set of principles to help identify economic activities that contribute to sustainability, with a focus on those addressing the effects of climate change. Aims to direct capital towards these sustainable socioeconomic activities.
Sustainable Finance Framework	Outlines Bangko Sentral ng Pilipinas direction on mainstreaming sustainability, environment and social responsibility principles in corporate governance, risk management frameworks and strategic objectives and operations of banks.
Sustainable Finance Taxonomy Guidelines	Designed to help classify economic activities based on their environmental or social sustainability, providing stakeholders with clear criteria for making informed investment and financing decisions.
Initiatives	Initiatives
Climate Change Expenditure Tagging	Ensures that climate change-related expenditures are properly tracked and prioritized.
National Integrated Climate Change Database Information and Exchange System (NICCDIES)	A centralized climate information hub consolidating data on climate change and climate action from government, private sector and other stakeholders to support policymaking, development planning, investment decisions and programme development.

## Energy

**Table 27. Overview of energy related initiatives**

Policy/strategy/ plan	Climate, environment and DRR and/or child focus
<b>Policies and strategies</b>	
Enerkids	<ul style="list-style-type: none"> <li>Aims to introduce children to the concepts of energy efficiency and conservation. It encourages interest in science, technology, engineering, and math (STEM) careers, with a particular focus on inspiring young girls to pursue these fields.</li> </ul>
Task Force on Energy Resiliency (TFER),	<ul style="list-style-type: none"> <li>Facilitates coordination between public and private sectors in disaster response efforts.</li> </ul>
Other Department of Energy initiatives	<ul style="list-style-type: none"> <li>Utilization of microgrids and mobile energy systems to address disruptions in energy supply to secure basic social services delivery such as education and healthcare.</li> <li>Solarization of schools in conflict-affected areas like Sulu to promote education and resilience.</li> <li>Renewable energy projects like solar-powered water pumps to empower rural and remote communities, benefiting children by improving access to water, sanitation, and hygiene (WASH) and supporting local livelihoods.</li> </ul>

## Other climate and children initiatives

**Table 28. Overview of other climate and children related initiatives**

Policy/strategy/ plan	Climate, environment and DRR and/or child focus
<b>Policies and strategies</b>	
Kabataang Resilient Program (KRP)	<ul style="list-style-type: none"> <li>Supported by UNICEF, the Kabataang Resilient Program aims to co-create solutions for climate and disaster resilience with and for children and youth. Supports local government units, government agencies and other sectors in bridging the gap in children and youth participation in climate action and disaster resilience.</li> </ul>
National Action Plan for Climate Empowerment	<ul style="list-style-type: none"> <li>Outlines national undertakings to educate, train and engage its citizens on climate change issues.</li> </ul>
Youth for Resilience (Y4R) Program	<ul style="list-style-type: none"> <li>Focuses on educating young people on climate change, resilience and disaster risk reduction.</li> </ul>

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