

# Climate Change and Young Children

## Impact of Climate Change and Environmental Degradation on Early Childhood Development (ECD) in Flood-Affected Communities of Shikarpur, Sindh, Pakistan

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### Overview

Since 2019, ARNEC has been advocating for clean, safe and sustainable environments for early childhood. Through a joint scoping study, we have been building foundational work linking early childhood and climate change with University of Wollongong-Early Start Australia in partnership with Save the Children, UNICEF EAPRO and Bernard van Leer Foundation. Our pioneering scoping study highlighted that climate change and environmental degradation undermine all nurturing care areas affecting young children, families, and their abilities to survive and thrive. Young children who have emitted the least amount of greenhouse gases are paying the heaviest price.

ARNEC's ECD-Climate framework for action recognizes research and evidence generation as a key action pillar in elevating the needs of young children to inspire collective actions in addressing the impact of climate change and environmental degradation. Building on the joint scoping study with support from Early Opportunities, we have since supported micro research 4 countries in Bhutan, India, Pakistan, and the Philippines. These studies have provided empirical evidence to support the participation of young children in climate and environmental discourse and actions. This is one of a series of four micro research reports that summarize findings, lessons learned, and recommendations requiring urgent actions.

## Background

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Climate change and environmental degradation have become pressing global challenges, affecting communities worldwide. The vulnerability of children and mothers in flood-affected regions, such as Shikarpur Sindh, Pakistan, is of paramount concern. This micro research aims to investigate the impact of climate change on Early Childhood Development (ECD) in flood-affected communities by analysing the risks and challenges faced by this vulnerable population.

The UNICEF report entitled 'The Climate Crisis is a Child Rights Crisis,' has ranked Pakistan 14th on the global Children's Climate Risk Index (CCRI) among 163 nations. The report assesses how climate change has exposed children to risks exacerbating their vulnerability, due to limited access to essential services, such as health, nutrition, education, and social protection. (UNICEF, 2021)

**High Vulnerability of Child and Mother Exposed to Risks and Harsh Conditions:** Flood-affected areas are particularly susceptible to the adverse effects of climate change. The exposure to harsh conditions, such as extreme weather events and environmental degradation, poses significant risks to the well-being and development of infants, children, and their caregivers. To ensure proper care and support of young children and caregivers, it is crucial to understand the specific challenges faced by this vulnerable group and create strategies to address them effectively at grassroot level.

**Understanding Nutrition Needs and Impact of Stunting: Over 40% of under-five children are stunted in Pakistan compared to the regional average of 31% in South Asia** (World Bank, 2022). Climate change and calamities like floods, drought, and heatwaves can further impact the food security and nutrition status of vulnerable populations. The essential elements needed for healthy growth and stimulating experiences in early childhood are articulated in the Nurturing Care Framework. (WHO, UNICEF, 2023)

## Methodology

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This micro research adopts a mixed methods approach to assess the impact of climate change on ECD in flood-affected communities across 58 households in 6 villages in Shikarpur district, Pakistan. The research design includes both quantitative and qualitative methods to gather rich and diverse data.

Quantitative data was collected through a household survey, where caregivers (primarily mothers as they spend more quality time with the children) were interviewed to gauge their perceptions of climate change and its impact on them and their children. Qualitative data was gathered through focused group discussions (FGDs) with teachers, head teachers, and government officials. These discussions delved deeper into the dynamics of the community to understand the complexities and nuances surrounding the challenges caused by climate crises.

A sample of six flood-affected villages in Shikarpur, Sindh, was randomly selected for the micro-research study. One government or community-based primary grade school was chosen from each village to ensure a diverse yet authentic representation of the community. Data was collected from a total of 58 households, with one caregiver interviewed per household.

The study population included caregivers (mothers) from various age groups and socioeconomic backgrounds. The inclusion of diverse demographic characteristics helps to contextualise the findings and understand how climate change impacts different segments of the community.

# Results

The findings of the micro research provide critical insights into the community's perception of climate change and its impact on ECD. Caregivers demonstrated limited awareness and understanding of climate change as a global crisis, indicating the need for targeted education and awareness campaigns. The result reveals that there is a noticeable awareness of changing weather,



**Awareness to the term "Climate Change" was found in 57% of the surveyed households**

with 57% of surveyed households having heard of the term "Climate Change" and, when considering caregivers' level of education,

55% of uneducated mothers are aware of the term "Climate Change" (in their local language), indicating that education does not necessarily correlate with a better understanding of changing climate patterns. However, the knowledge and link of human action to climate change remain limited, as explored during the FDGs. According to the local District Education Officers, "Due to shortage of wood as fuel after the floods, females made use of plastic and/or rubble as fuel to prepare food. This caused extreme smoke and smell, but they were not aware of the effect of using it to prepare

food or inhaling the smoke which could impact them negatively."

**There is a huge need for anticipatory approaches for preparedness to climate emergencies and disasters.**



**Females are making use of plastic or rubble as fuel to prepare food. This causes extreme smoke and smell but they are not aware of the effects of using it to prepare food or in inhaling the smoke.**

The vulnerability of social-emotional well-being in ECD-age children emerged as a significant concern, where caregivers struggled to recognize and meet the social and emotional needs of children amid challenging environmental conditions. The data highlights a lack of mothers' awareness of



**Food security is causing malnutrition in children and is also largely impacting their development to achieve development milestones**

their child's changed behaviour; **69% of mothers responded they did not experience any change in their children's behaviour or social needs. However,**

**the FDGs with the head teachers and teachers revealed contradictory insights.** One female teacher shared that her students looked at their partially destroyed classroom and asked "Will this building collapse on us?" She also reported that after the 2022 floods, children in her class "looked visibly irritable and cried on every little thing."

The survey outlines caregivers' concerns regarding the impact of climate change on their children, with poor physical well-being being the most commonly expressed concern (47%). On the other hand, areas of lesser concern include lack of education, limited play opportunities, and poor social-emotional well-being. In FDGs with government and local officials, a representative from a health organization stated that "Food security is causing malnutrition in children and is also significantly affecting their developmental milestones."

This resonates with the stunting data of Pakistan, reinforcing the



**Students look at the partially destroyed school building and ask "Will this building collapse on us?". The teacher quoted that her students "look visibly irritable and cry on every little thing."**

connection between food security, malnutrition, and holistic development challenges.

The survey further probed deeper into the quality of mother-child interactions. The data highlights the **substantial workload of mothers and caregivers in the aftermath of flooding, which hindered their capacity to provide nurturing care to their young ones, particularly quality time and stimulation crucial for children's holistic development.** The most shared mothers' responses were primarily fulfilling the basic needs of their children, which limited the opportunities to build nurturing bonds with their children.

Overall, this micro research sheds light on the critical issue of climate change and its impact on ECD in flood-affected communities. By understanding the vulnerabilities and challenges faced by children and mothers in these regions, we can take targeted actions to ensure their well-being. To mitigate the impact of climate change on ECD, **preparedness and multi-sectoral collaboration is crucial.** This involves developing comprehensive plans that address climate-related risks to children and caregivers, ensuring that access to ECD is not neglected in climate or emergency response.

## Lesson Learned and Recommendations:

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Based on the research findings, several recommendations are proposed targeting the government and civil society to include ECD in climate action plans based on agreed minimum standards

- 1. Multisectoral coordination and leadership** are critical for the effective ECD interventions addressing climate change and emergency needs, which must align with the five components of Nurturing Care Framework (NCF) for the child's holistic development.
- To increase awareness and understanding of Climate Change among the population, the government and civil society organisations should **invest in community-based Climate Change education campaigns for mothers and caregivers using local language.** There is also a need to develop visual resources and attractive posters with key messages also using local language.
- Multisectoral programs by the government and civil society organizations need to **address ECD concern areas**, including food insecurity, malnutrition, poor health and hygiene, inadequate early stimulation and responsive caregiving.
- At the system level, **ECD must be mainstreamed in local policies for Disaster Risk Reduction (DRR) and Disaster Risk Reduction and Management (DRRM)** and should be part of capacity-building and institutional reform.

These recommendations have been formally conveyed to the School Education & Literacy Department (SELD) of the Government of Sindh for action and to integrate ECD in Emergencies.

## References

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