

**High Peaks, Broken Promises: Climate-Induced Glacial  
Flooding and the Fragile Future of Early Childhood in  
Gilgit-Baltistan  
Pakistan**

***Impacts of the 2022 Shishper Glacier Outburst Flood on  
Young Children and Caregivers in Hassanabad, Hunza***

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# Background

- Hunza is a mountainous region in Gilgit-Baltistan, northern Pakistan, surrounded by high peaks and glaciers. Population depends heavily on natural resources and environment.
- Characterized by steep valleys, glaciers, and fast-flowing rivers, Cold climate with seasonal variations affecting livelihoods. Agriculture mainly based on glacial water and fertile valley land. Presence of numerous glacial lakes, increasing environmental risk.
- Strong community cohesion and mutual support systems. Livelihoods linked to farming, orchards, and local resources. Deep cultural values, traditions, and faith-based practices. High level of community resilience in facing challenges.

# Hunza & Climate Risk

- Population: 65,497 (2023)
- Dependent on natural environment
- 3,000+ glacial lakes
- 33 high-risk lakes (UNDP)





# Flood Disasters in Hunza (Since 2017)

- **2017–2018**

Shishper Glacier surge began. Glacier movement blocked water flow, forming a dangerous glacial lake

- **2019**

Major GLOF event (June 2019). Flood released from glacier lake. Damage to Karakoram Highway and local infrastructure



# Cont..

- 2020

Another glacial flood in Hassanabad. Continued risk due to unstable glacier system

- 2022

Severe Shishper Glacier flood. Bridge on Karakoram Highway damaged. Loss of land, orchards, and homes

- 2025 (Recent Event)

Powerful GLOF flood swept through Hunza. Roads and parts of Karakoram Highway destroyed Agricultural land and properties damaged





# Research Focus

Location: Hassanabad, Hunza

Event: 2022 Shishper Glacier Flood

- Resource Insecurity
- Psychosocial Insecurity

# Community Impact

- 24 households
- 9 homes destroyed
- Land & orchards lost
- Food & financial insecurity
- Loss of ECD centers, playgrounds, prayer halls





**Case Study 1:** Yuaan Rahi, a 12-year-old boy, appeared visibly overwhelmed while recounting his experiences of the climate-induced Shishper glacial outburst. As a result of the disaster, his family lost their home, agricultural land, and fruit trees, forcing them to relocate to another village.

During the interview, Yuaan spoke with a heavy emotional burden, expressing deep grief over the separation from his extended family and peers. He shared, “I miss my cousins Asher and Ahmad a lot. We were separated from each other. I also miss my friends.” This separation has significantly affected his sense of belonging and emotional security.

Yuaan further articulated a longing for reunification and stability, stating, “I wish there would be a place where we could all live together again. I don’t understand why this happened to us.” His narrative reflects confusion, loss, and unresolved emotional distress.



**Case Study 2:** Saad (12 years) and Ali (13 years) were present with their mother, Bano.

The family lost their newly constructed house, agricultural land, and fruit trees due to flooding. The house had been built through bank loans, placing the family under severe financial strain after its destruction. Although the family was later provided with an AKAH-supported lightweight prefabricated housing unit, the relocation has had unintended psychosocial consequences for the children.

Saad and Ali shared that the housing unit is located far from their former neighborhood, resulting in feelings of isolation and separation from friends and neighbors. They also expressed anxiety about their prolonged absence from school and uncertainty regarding the continuation of their education. Bano noted that ongoing emotional distress and financial hardship have made it difficult to re-enroll her children in school.





These stories remind us that **before we talk about climate change, curriculum, or pedagogy, we must first advocate for trauma-informed support systems**—for both children and Caregivers.

Schools and communities need **safe spaces where children can heal, play, and learn**, and teachers need **institutional support** to continue their critical role during times of crisis.



Images of the damaged homes



These children live in a house that is located in the designated Red Zone, at high risk of glacial flooding.





This is a lightweight prefabricated house installed by Aga Khan Agency for Habitat (AKAH), Pakistan.

The unit consists of a kitchen, a sitting/living area, one bedroom, and a washroom, providing basic shelter and functionality for families affected by the 2022 Shishper Glacier flood.

# Community Resilience & Coping Mechanisms

- Strong Community Solidarity
- Volunteers supported evacuation and saved household belongings
- Institutional Support Aga Khan Agency for Habitat (AKAH)
- Prefabricated housing for affected families
- Tents provided for storing salvaged belongings
- Faith-Based Coping & Emotional Healing
- Daily prayers and community gatherings
- Reduced fear, grief, and emotional isolation
- Strengthened hope and collective wellbeing
- Helped maintain caregiving routines for children

# Key Findings & Final Message

- Children experience loss, fear, and uncertainty deeply, affecting their development and future aspirations.
- Need for Trauma-Informed Systems
- Disaster responses must be child-sensitive, trauma-informed, and include caregivers' mental health support.
- Climate disasters disrupt learning—there is an urgent need for government support systems to ensure continued access to secondary and higher education.
- Community solidarity provides vital support, but cannot replace strong institutional and government response.
- Shift from short-term relief to climate-resilient, child-centred recovery, focusing on psychosocial support, education, livelihoods, and sustained government engagement.