

From Sundarbans to the Word: Evaluating Climate Change on the Ground

Webinar Recap

The webinar examined the multifaceted impacts of climate change on the Sundarbans leading to rising sea levels, increased cyclonic storms, and freshwater salinity, which act as threat multipliers, exacerbating existing socioeconomic vulnerabilities faced by the community. The panel discussion focused on specific challenges in migration, maternal and child health, and child protection. Panellists emphasised on the need for holistic, adaptive, and community-led approaches to address the human rights ramification from a climate lens, stressing the importance of incorporating local voices, especially those of children and women, into evaluation frameworks.

Key Takeaways from the webinar:

I. MULTI-DISCIPLINARY IMPACTS OF CLIMATE CHANGE

Climate Change and Health Infrastructure:

- Climate disasters disrupt healthcare facilities, continuity of services, and increase disease burdens. The lack of capacity of facilities to cater to the increased patient loads leads to system collapse.

Maternal and Child Health Challenges:

- Sudden-Onset Disasters: Disrupt emergency health services, especially perinatal care, leading to complications like stillbirths, infections, and low birth weight due to overwhelmed temporary facilities.
- Prolonged Climate Stressors: Rising salinity, heatwaves, and sea levels contribute to chronic issues like pre-eclampsia (higher in the Sundarbans), gestational diabetes, maternal anaemia, intrauterine growth retardation and low birth weight among neonates, all linked to climate change.

Child Protection Impacts:

- Climate change increases education disruption, child labour, and negative psychosocial effects, while compromising menstrual health practices, among several other factors.
- The lack of recognition of children as individuals with unique perspectives, not subsumed under family/community issues, further hinder the inclusion of their voices in climate-sensitive decision-making.

Climate-Induced Migration:

- Three movement types: circular migration (push factors), disaster-induced displacement, and planned relocation from eroding islands.



- Unsafe migration relies heavily on middlemen, with limited safety nets, increasing risks for vulnerable groups like children. The lack of data, tracking services and overwhelming stake of the issue further complicate effective response.

II. RECOMMENDATIONS FOR PROGRAM DESIGN

- **Decentralized and Community-Led Approaches:** Programs should prioritize grassroots input, moving away from top-down models. Engaging communities in identifying gaps and opportunities ensures context-specific solutions. In health programs, community sensitization, strengthening community health workers, and integrating innovative tools like point-of-care diagnostics and telemedicine to overcome conventional delivery model limitations are critical. Those working with children, need to integrate a climate lens in their child protection work which involves working with children in schools and communities and amplifying their voices, engaging them in mapping climate related risks and co-designing programs that respond to it.
- **Climate-Disaster Preparedness and Adaptation:** Whilst most interventions working with health systems focus on mitigation, there is a need to embed preparedness and adaptation measures as a core component. A comprehensive approach emphasizes collaboration, capacity building, and sustainable interventions. The success of these green and climate resilient health infrastructure interventions relies on ongoing engagement with healthcare facilities, maintaining regular contact, and providing continuous support to increase the likelihood of sustained improvements in climate resilience.
- **Holistic and Intersectional Strategies:** Programs should address intersecting issues like health, migration, and child protection. Multi-pronged approaches that tackle these interconnected vulnerabilities are critical for effectiveness. For instance, those working on child protection cannot defer from access to drinking water for the community. The same vulnerable community that is affected from the health lens will also be facing problems regarding migration or displacement and would also be at risk of being trafficked or would also be having not adequate access for wash facilities.
- **Systemic Integration and collaboration:** No single organization can address challenges alone, especially when one works on mammoth issues such as responding to the needs of climate induced migrants. NGOs need to pool resources and expertise to maximize impact. Additionally, alignment with government programs like the National Program for Climate Change is integral so that we are all contributing to the same desired goal.
- **Climate justice in programming:** Climate justice should be a critical lens informing program design. It is important to work on the issue of climate induced migration, because it is an irreversible change that people are experiencing and living.



III. EVALUATING INTERVENTIONS DIFFERENTLY:

- **Beyond Clinical Outcomes:** Evaluations must capture resilience, service accessibility during climate shocks, and community adaptability. For example, assessing how health facilities maintain WASH services during floods is as crucial as tracking disease incidence.
- **Incorporating Community Voices, Especially Children:** Child-led research and participatory methods (e.g., photo voice, story circles) ensure evaluations reflect lived experiences. Children’s perspectives on climate impacts (e.g., drinking water scarcity, menstrual hygiene challenges) can redefine program success metrics, making evaluations more inclusive and democratic.
- **Qualitative and Quantitative Integration:** Combining qualitative insights (e.g., community health worker interviews) with quantitative data (e.g., disease incidence trends) helps navigate attribution challenges and understand the “why” behind service disruptions. This is critical in complex, multi-factorial settings like the Sundarbans.
- **Big Data Analytics:** Leveraging AI and big data to predict extreme weather event patterns, disease trends, and seasonality changes enhances evaluation accuracy. For instance, analysing salinity trends or species diversity loss (e.g., fish and crab populations in the Sundarbans) provides insights into ecological and health impacts.
- **Interdisciplinary research:** Evaluations need to be interdisciplinary to generate insights that are futuristic such as probing into the interconnectedness between rising salinity and displacement or the link between mangrove plantation and child labour. Additionally, climate anxiety and psychological challenges (e.g., PTSD, depression) are under-researched but critical domains of enquiry and there is a need for evaluations to include mental health indicators to capture the full scope of climate impacts on well-being.
- **Role of Technology:** AI and drone technologies can enhance monitoring and aerial surveillance of affected areas, driving informed decision making.

As climate change rapidly changes the world as we know it, our evaluations must evolve and adapt so that we are building evidence that is relevant, timely, actionable impactful, and inclusive to drive action.

