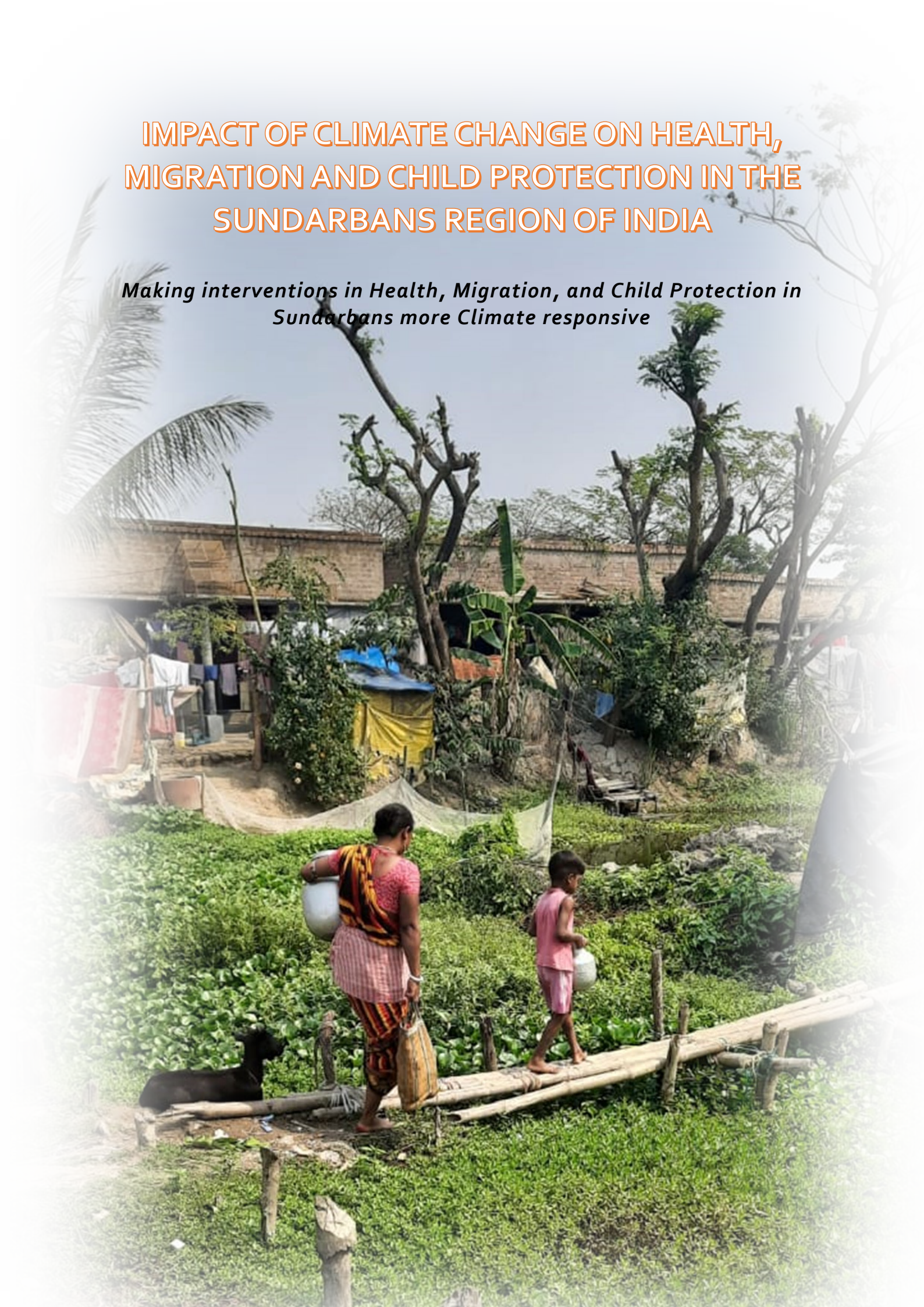


# IMPACT OF CLIMATE CHANGE ON HEALTH, MIGRATION AND CHILD PROTECTION IN THE SUNDARBANS REGION OF INDIA

*Making interventions in Health, Migration, and Child Protection in  
Sundarbans more Climate responsive*





**Declaration:** This report is based on an assessment carried out by South Asia Consortium for Interdisciplinary Water Resources Studies (SaciWATERS), Hyderabad, India and funded by Terre des hommes (Tdh).

First published in June, 2022

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## EXECUTIVE SUMMARY

In the first half of 2022 Terre des hommes foundation engaged SaciWaters to conduct an exploratory assessment in the Climate Vulnerable Sundarbans region of India, with the objective to identify key child and youth-related vulnerabilities emerging from climate change impacts. The Sundarbans region is a tidally active lower deltaic region of the largest delta in the world, and is considered one of the most vulnerable regions in the face of a rapidly changing climate and consequent environmental changes. The Sundarbans is home to dense mangrove forests, and stands as the vanguard against severe cyclonic storms and tidal surges for the larger Bengal delta and the city of Kolkata. With a maze of rivers, rivulets, and creeks, this region is drained by 7 important rivers from Hoogly in the west to Harin-bhanga in the east, and the Bay of Bengal in the south.

Children are particularly vulnerable to climate change as they have a unique metabolism, behaviour, physiology, and development characteristics. Existing literature suggests that the impacts of climate change on children are not always straightforward and easily predictable. These impacts vary and depend on context and are facilitated by a host socio-cultural, economic, ecological, and/or political factors. Integration of social sciences with natural sciences to better understand the differences in the way that climate change affects children present a more holistic, nuanced picture of how climate change intersects with various other factors (such as social, cultural, institutional and technological) in different settings. In this context, drawing on multiple data sources, methods, and tools, the overarching goal of this study was to build an understanding of the impact of climate change in order to inform direction to Tdh interventions in the region to be more climate-responsive. Within a broader thematic focus on health, migration and child protection, the study draws particular attention to child and youth-specific vulnerabilities through focal areas of maternal and child health, migration and trafficking as well as child protection. In this regard, a mixed-method approach was applied to illuminate how local communities perceive, understand, value, and respond to the impacts of climate change.

This study brought out 4 major climate change outcomes for the Sundarbans region – sea surface temperature changes, sea level rise and land erosion, salinity changes and biodiversity, and incidence of cyclonic storms. Each of these is closely linked to tangible consequences for the socioeconomic and resource outcomes for the populations who live in the Sundarbans. The cumulative impact of climate change lead to a cascading set of consequences, including increasing poverty, reduced food production, loss of livelihood security, negative impacts on health, large-scale migration, and increased economic and geopolitical tensions and instabilities.

The research highlights the precarious health condition of the people living in the Sundarbans along with a high prevalence of child marriage and adolescent pregnancy. Numerous studies have identified climate change as one of the determining factors for the health outcomes for this region. There is a clear indication that with the increasing frequency of cyclones, floods, and droughts there are chances of increased incidences and epidemic outbreaks of infectious diseases. Climate change also brings indirect health risks for children and mothers through impacts on ecosystems and human social systems or/and interaction of both. This is a complex process and follows multi-stepped, diffuse, and deferred causal paths.

The indirect impacts of climate change on child and maternal health mediate through two pathways, i.e. through water insecurity caused by a disruption in freshwater services due to depletion of groundwater, increasing level of salinity in groundwater and surface water; and through food insecurity caused by the decrease in farm production, crop failure, and the decline in fish production. It was also found that the disruption in normal life due to extreme weather events brings emotional trauma and distress to children and pregnant mothers, especially for those who live in island villages surrounded by rivers.

With a geography susceptible to cyclonic storms, poor groundwater availability, lack of irrigation, and single cropping season, migration has been ingrained into this region's socioeconomic fabric. Temporary cyclic migration was found to be the major form of migration where labour migration is facilitated through informal processes by independent contractors, familial connections and social networks. An assessment of the reasons for migration as reported by households found a close alignment with individual aspiration overlapped with climate change related vulnerabilities as being a push factor. It is found that while the migration percentages among children is low, their early involvement in the labour market sets the foundation for their migration for work in their early youth. Other significant forms of migration in the region is related to marriage migration. Given the prevalence of early marriage in the region this form of migration holds relevance for youth, their capabilities and vulnerabilities. Findings reveal that child marriage has significant implications for child vulnerability for both boys and girls. It is found that boys are compelled to provide an earning and livelihood for their family and are pushed into a precarious labour markets at a very young age, while girls marrying early were faced with teenage pregnancies and associated health dangers, pressures of domestic responsibilities, and consequential limitations on their mobility and educational aspirations. Additionally, the Sundarbans is well known for its high incidence of girl child trafficking by civil society and government stakeholders.

Violence at home by parents/caregivers is the most common form of violence experienced by children of the Indian Sundarbans region. It is assumed that stressors related to extreme climatic events, including concerns over shelter, health, food security and income exacerbate this violence against children, both increasing the risk to children already in abusive and neglectful households, as well as increasing the potential for over-stressed parents/caregivers to become violent or abusive. It is reported that the tendency of underage marriage massively increased in the last 10 years in the Sundarbans. The study found that child marriage increases a girl's and woman's chances of being abused. Child brides often show signs symptomatic of child sexual abuse and post-traumatic stress.

The study found that Children's views are not being asked for and they are rarely consulted and their opinions are not taken into consideration most of the time. It is found that there are no

Disaster Risk Reduction (DRR) activities for the affected communities and specifically for children. There is limited scope for children to talk about disaster-related risks (physical as well as social) in the area and their collective voice is not heard in any action plans. Children's views can be meaningful when children have access to the right information about events that affect them, and are given the opportunity to express their experiences. This report reveals that the expression of children's views also depends on their cognitive ability based on their knowledge base and should not be based on their age, cultural background, and/or socioeconomic status.

The study concluded that the frequency and intensity of climate-related extreme events are likely to increase the protection risks to children in the form of increased child labour, child marriage, teenage pregnancy, abduction, recruitment into fighting forces, sexual violence and labour migration.

### **KEY RECOMMENDATIONS TO STEER THE WAY FORWARD**

- There is a need for better provision of sufficient nutrition through a balanced diet for the children in these regions. In this regard, capacity building / training of the caregivers of the children by engaging various NGOs and humanitarian organizations could be helpful.
- Strengthening the implementation of existing child protection and welfare schemes through regular training of the frontline workers (ASHA, ANM, ICDS).
- The availability of healthcare services, infrastructure, number of specialized doctors and accessibility needs to be improved to ensure seamless delivery of health services. This is especially important for the island parts badly affected by disruption of services due to damage to infrastructure during extreme cyclones and floods.
- Enabling delivery of health services through information and communications technology (ICT) would be meaningful, especially in remote areas.
- A safe physical environment with adequate basic amenities is a critical need during or after emergency situations. It should ensure that the basic needs of children such as shelter, health, sanitation facilities, and food are met.
- Damage to infrastructure due to extreme weather events is a serious concern, increasing the resilience of roads, bridges, jetties, hospitals, etc., using appropriate technology is critical. Disruption to services due to infrastructure damage can affect emergency response activities, as well as the ability of the affected to access safe places, healthcare and other basic needs.
- Reusable menstrual products could help mitigate "period poverty," Period poverty is highly prevalent in the Sundarbans region as single-used menstrual products (Sanitary pads) are not always financially viable.
- Basic environmental health education should be disseminated on management and personal hygiene practice to increase knowledge and change their behavior through display (or demonstrate), poster and regular announcement.
- It is found that quacks do not have adequate medical degrees but practice medicine, predominantly in rural areas of Sundarbans, from their practical experience. With a shortage of adequate doctors and ANMs, quacks can be trained and tagged with health workers to help in surveillance so that the patients can get treatment at the earliest.

- Listening to children of all genders, ensuring dialogue and further research, to take the experience of the impact of climate change on children and households into account in designing response plans.
- Committing to prioritising child protection within climate change response plans
- Intensifying the role of the social service workforce (both formal and informal) as essential workers, with support to adapt responses to continue safely providing essential services to children and households in areas of origin, transit and destination.
- Allotment of funding for child protection programmes, including for children's and caregivers' mental health and psycho-social support, and gender-based violence response services.
- Ensuring that child protection risk factors are understood and integrated into social protection and child benefit programmes, with the aim of helping prevent and mitigate violence against children, exploitation and family separation and promote adequate care to the children. ,
- Ensuring that education sector (schools) and child protection sectors are enabled to proactively work together to put child-friendly, effective protection response mechanisms in place to transition children back to school/education safely.
- It is crucial that school teachers have to take responsibility, and panchayats and parents have to be taught the importance of internet safety.
- Strengthening the integration of high-quality mental health and psycho-social well-being programmes with gender-sensitive child protection systems and services to prevent and address gender-based violence.
- There should be a platform where children are able to express their views freely; and where there are necessary steps taken to ensure that all children affected by disasters take part in action plans.
- A child-centred participatory approach to policies and widespread planning to protect child rights as mentioned in UNCRC is required at different levels of administration.