



Climate change: a threat to child food security in the Indian Sundarbans

Responses to climate change must be community-based

Climate change induced food insecurity: Indian Sundarbans as a case

The Sundarbans, the mangrove forest delta shared both by India and Bangladesh, is among the worst hit regions of climate change in the world. Even though food insecurities due to climate change are felt across the region, the distribution of vulnerabilities is largely uneven depending upon existing climatic and social intersections.

Within the context of socio-cultural and political dynamics, and rapid globalization, efforts to respond to, mitigate, or adapt to climate change needs to address issues of equity and social justice, posing both challenges and opportunities.

Impacts of climate change in food security of Sundarbans

Recurrent climatic shocks and long term climatic variability has downgraded all four dimensions of food security – availability, accessibility, utilization and food system stability across the Indian Sundarbans. The manifestations of climate change are impacting the

availability of locally grown vegetable and fish and made them disappear from the platter of the masses. Due to uncertainty of traditional agro-fishing livelihood, purchasing power of the people is affected, forcing them to choose less nutritional food options.

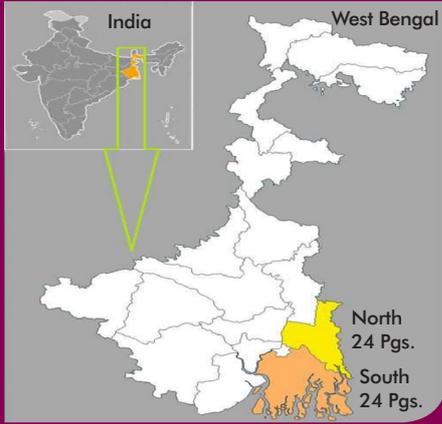
Children are most affected by these impacts due to their physiological susceptibility to under nutrition and related morbidities. The children of geographically inaccessible pockets in the Indian Sundarbans and socially marginalised populations like Schedule Castes are bearing the brunt of climatic change impacts on food security more than their mainland counterparts. People of these regions and intersections are unable to adapt and respond to the changes as they lack the resources and requisite skill for alternatives.

As there is a lack of knowledge on nutritional care systems for the existing vulnerabilities of children from socio-geographically marginalized regions like Indian Sundarbans, it is hard to identify and act upon the impacts of climatic changes on food security for them. This knowledge gap created divergence, causing a weakening of the care delivery systems' capacity to absorb climate change impacts in the food system, and subsequently resulted in nutritional deficiencies among children in the region.

Priority actions

- 1 Identify climate change as a risk factor for food security, especially in the island pockets where resources are limited
- 2 Adopt long term community-led adaptation strategies in food production system instead of short-term emergency response
- 3 Build climate-sensitive infrastructure in climatically vulnerable pockets for uninterrupted care services
- 4 Undertake state-led innovative measures for supplying vegetables and fruits through the Public Distribution System to improve the food availability of the region
- 5 Undertake strong surveillance to monitor growth of the children, especially in the worst hit regions for prompt action on food insecurity at household level

Location of Indian Sundarbans



Key findings

- 1** **25.40%** of households faced extremely high losses to food resources during climatic emergencies in the last five years
- 2** Both household and child food insecurity levels (low to very low food security) were high at **66.24%** and **44.53%**, respectively
- 3** Food insecurity level positively co-relates with climatic vulnerability of households. **30.00%** of children (0–6 years) are chronically malnourished in climatically vulnerable households
- 4** A clear disparity in household food security is reflected in the basis of social intersection. **38.90%** Schedule Caste households are food insecure compared to **31.20%** General Caste households
- 5** Only **10.34%** of children aged 6 to 23 months receive the minimum number of feeds per day, while no child is fed with minimum number of dietary items recommended as per Infant and Young Child Feeding guidelines (Care, 2010)

Implications

Climate change induced food system alteration has a moderate to severe impact on the nutritional status of the children of Indian Sundarbans, worsened by the existing social vulnerabilities like caste, religion or geographical position of the households. The risk is still not well reflected due to a range of short-term coping strategies taken by parents. Lack of adaptive mechanisms or transformative mitigation planning for sustainably addressing the changing situation is worsening the situation further. The existing plans for securing food to the children of the Sundarbans, especially for those living in the remote islands, are not sufficient to reduce hunger risk. The situation calls for identifying climate change as catalyst of hunger risk and requires long-term community-based adaptation planning. Evidence-informed, state-sponsored, community-led adaptation and transformative measures may provide better options to secure basic nutritious foods in the Indian Sundarbans.

Figure 1 Child malnutrition, morbidity pattern and household food security (%) in a climatically vulnerable pocket

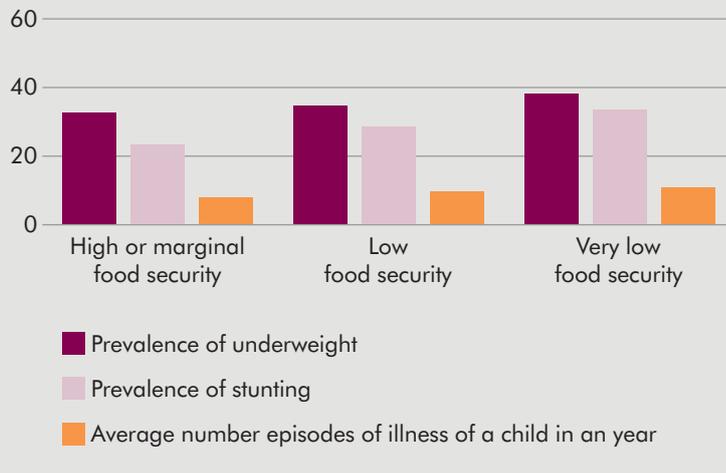
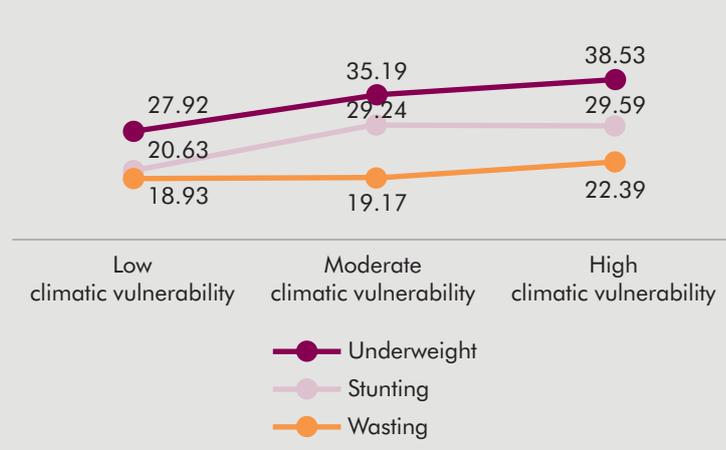


Figure 2 Malnutrition by climatic vulnerability of households



CREDITS

This Issue Brief was prepared by Upasona Ghosh and Shibaji Bose, from the Indian Institute of Health Management Research.

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