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Climate Change – Livelihood – Migration Nexus: A Case Study from Sundarbans, India

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Abstract:

Climate change is one of the most pressing challenges of the 21st century and is likely to increase migration of the marginal communities from the coastal areas throughout the world. It is projected that 200 million people worldwide will be climate refugees by 2050. Owing to high exposure and poor adaptive capacity, low-lying coastal areas and islands in developing countries are the most vulnerable to the impacts of climate change. Therefore, it is imperative to understand how climate change is affecting the livelihoods, in turn, driving the migration in these regions.

The present study focuses on the Sundarbans region located along the coastal belt of West Bengal (India) as a part of Ganga-Brahmaputra mega delta. It is also a home of 4.7 million poor people, who earn below US\$10 per month. The region is an exceedingly flat, low-lying, alluvial plain highly exposed to sea level rise, storm surge, tornados, cyclonic activity, riverbank erosion, salinization and subsequent mangrove depletion. Due to the climatic hazards, the basic livelihoods are at risk and their strategies towards livelihood collection remains largely unknown. Therefore, the present study provides insights into the nexus among climate stimuli, livelihood risks, and households' strategies in the region, with special emphasize on climate change.

The study is based on field survey of 150 respondents representing migrant and non-migrant coastal communities from Gosaba, Basanti and Hingalganj block using structured questionnaires. More than 70% of respondents stated that livelihood risks mainly from climate change impacts as the major reason for inter-state migration, which is the main source of income supporting livelihood in the region. This environmental displacement in the Sundarbans region symbolizes the failure of adaptation to mitigate climate change induced sea level rise increasing the exposure to coastal flooding and storm surges, salinization, and erosion. This study discusses potential mitigation strategies to combat the impacts of climate change on livelihoods of the coastal communities in the region.