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## A framework for resilience in changing climate: Insights from Sundarban, India

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The concept of resilience in climate change refers to a capacity to adapt to changing climatic conditions as well as persistent stresses by responding effectively. The Sundarban, an area in India that endures flooding, cyclonic storms, salinization of soil, and sea level rise, has been undermined by these factors over the past century. Poverty, malnutrition, and an aging population exacerbate the vulnerability of this region. A single livelihood practice in Sundarban, agriculture, depends heavily on limited natural resources, including land, water, and energy. This study includes the last habited island (Gosaba block), which is surrounded by Sundarban Reserve Forest on three sides. I conducted a Participatory Rural Appraisal (PRA) using the Focus Group Discussion (FGD) method from September 2020 to April 2021 with village heads, panchayat members, and forest development committee members to gather data on the impact of climate change on their livelihood, income, fishing practices, and socioeconomic conditions. The salinity of fringe regions is steadily rising, and this has adverse effects on crops, soils, water supplies and biodiversity. In the study, 4 Pillars for Sustainable Socioeconomic Development were identified, including vulnerability reduction, poverty reduction, biodiversity conservation, and institutional change. In the low lying forest dependent coastal areas like Sundarban, the Livelihood Asset Status Tracking (LAST) method will attempt to measure the changes in five capital asset groups (social, financial, human, physical, and natural assets) in order to suggest climate resilient sustainable livelihoods.

**Keywords:** Resilience, Climate change, Sundarban, Sustainable development, LAST method.

### Biography

Chandan Surabhi Das current position is Associate Professor in Geography at Barasat Government College of West Bengal State University where he has been teaching since 2014. He is currently the Officer in Charge of the Morning Section at Barasat Government College since 2018. In the past two decades, he has participated approximately thirty conferences and workshops. He has published 20 research articles in different international and national reputable journals. He has published 10 books in various fields in both English and Bengali. Among them are Global Warming (2009), Sharing Space (2012), Practical Geography (2018), Geospatial techniques and Research in Geography (2020) and Geography in History (2022). Since 2016, he has been a member of the editorial board of an International Journal (Sustainable Forestry). He has also been a reviewer for three International Journals (Springer, Cambridge University Press, Elsevier) for the last eight years.

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