

Environmental Migration in the Lower Delta Plain of West Bengal, India

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Empirical research indicates that environmental changes including climate change have caused people to move for a safer place. Environmental changes brought about by rapid and slow onset events like floods, cyclones, droughts or sea level change have impacted the livelihoods of vulnerable communities and individuals across the globe. Migration is one form of response people have adopted either individually or as a community in the face of such changes. Rapid-onset events like cyclones or floods have the potential to cause considerable damage to infrastructure and property, as well as resulting in loss of life, and are therefore often associated with distress migration, known as environmentally forced migration. Slow-onset changes like sea level rise, erosion, salinization often stimulate permanent displacement as a first-order household adaptation. This may, however, initiate as temporary migration or short-term adaptation. Intergovernmental Panel on Climate Change suggests that the environmental degradation exacerbated by impacts of climate change can cause millions to migrate. Large numbers of people are moving as a result of environmental degradation that has increased dramatically in recent years. The scale and magnitude of such migration, though, may vary depending on local and regional vulnerabilities. As environmental changes increase, migration pressures related to these changes may also grow. However there is no single internationally agreed definition in identifying the flows of environmental migration as the migration, environment and climate change nexus is a complex one. The definitional issue is directly linked to the conceptualization and typologies of environmental migration, its estimates and forecasts, and the policy responses. There is also a serious debate whether environmental migration (migration induced by environmental degradation) can be recognized as a separate category of migrants at all, and if so, it can be distinguished from migration driven by economic or socio cultural reasons.

This study is aimed at the assessment of environmental migration in the lower delta plain of West Bengal with three objectives: (a) to develop a conceptual framework and identify the links between migration, the environment and climate change; (b) to understand migration behaviour in response to the impacts of climate change; (c) to estimate the number of people on the move because of environmental pressures today, and at points in the future.

Extensive surveys were conducted at household and community level with specific modules which include questions to identify migrants from the household, work activity of the migrant prior to migration, reasons for migration, work at the last destination and remittances, thresholds, environmental perception, etc. Binary logistic regression method was applied to understand the influence of various environmental and socio-economic variables on migration decision. To estimate the number of people on the move because of environmental pressures in the future, exposure mapping method was performed for this study.

The outcomes of this study are climate risk/impact and social vulnerability maps, migration map, conceptual model of environmental migration, sustainable livelihood options and policy recommendations.

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