

Assessment of Climate Induced Hazards in Coastal Zone of Bangladesh: A Case Study of Koyra Upazilla under Khulna District and Shyamnagar Upazilla under Satkhira District

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Abstract : Geographically Bangladesh is located in a natural hazard prone area. Compared to the rest of the areas, the coastal sub-districts are more vulnerable to climate variability and change. However, the hydro-geophysical reality of the sub-districts predominantly determines their contexts of vulnerability and its nature differs accordingly. Intriguingly enough, the poorest of the areas appear to be the most cornered among the different vulnerable sectors. Among of these deprived segments; however, the women, the persons with disability and the minorities are generally more vulnerable and they face a high risk of marginalized. The most threatening hydro-geophysical climate vulnerability have been created by prolonged dry season as observed at Koyra Upazilla in Khulna districts and Shyamnagar in Satkhira districts. The prolonged dry season creates severe surface salinity by which farmers cannot produce or use their to cultivate. The absence of land-based production and employment in the area has led to severe food insecurity. As a result, farmers tend to change their livelihood option and many of them are forced to migrate to the other areas of the country in search of livelihood. Besides salinity intrusion, water logging, drought and different climate change induced hazards are endangering safe drinking water sources and putting small-holders out of agriculture-based livelihoods in the Koyra and Shyamnagar Upazilla. A sizeable fraction of small-holders are still trying to hold on to their small scale shrimp production, despite being under pressure to sell off their cultivating lands to their influential shrimp merchants. While their desperate effort to take advantage of the increasing salinity is somewhat successful, their families still face a greater risk of health hazards owing to the lack of safe drinking water. Unless the issues of salinity in drinking water cannot be redressed, the state of the affected people will be in great jeopardy. Most of the inhabitants of oKyra and Shyamnagar Upazilla are living under the poverty line. Thus, poverty is a major factor that intensifies the vulnerability caused by hydro-geophysical climatic conditions. The government and different NGOs are trying to improve the present scenario by implementing different disaster risk reduction projects along with poverty reduction for community empowerment.

Keywords : assessment, climate change, climate induced hazards, coastal zone

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