Role of Technological Adoption in Building Resilience to Climate Change and Disaster Risk Management in Bangladesh

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Bangladesh, located at the lower end of the Ganges-Brahmaputra-Meghna Basin is extremely vulnerable to the impacts of climate change for a number of reasons. These include extreme weather events such as cyclones, drought and monsoons flood leads to livelihood and food insecurity. The situation has worsened in the recent years due to additional input of human induced changes of local environment, such as poor land use and unplanned infrastructure development. In addition, Bangladesh is experiencing acute shortages financial resources, extreme poverty, and lack of appropriate environment friendly technology. This study focuses on the current status of technological adoption and examines both short and long-term technological solutions for climate change adaptation in the coastal areas of Bangladesh. The most climate change vulnerable sectors in Bangladesh identified are water resources, coastal protection, livelihood diversification and health. This study recommends that a more coordinated action is needed to help combat the impacts of climate change in the coastal areas in Bangladesh, which should be accompanied by the use innovative and cost-effective technology. The study also highlights the importance of coordinated trans-country cooperation to minimize conflict in sharing water resources in the region and preventing saline intrusion in the agricultural land by coastal embankment, by using the adaptation fund declared by developed countries in COP 15. The study finally discusses the likely economic and policy barriers to technology transfer and implementation in order to draw conclusion on how technological adoption help to build resilience to support climate change adaptation and disaster risk reduction in the region.