

Erosion induced hazard assessment of the Brahmaputra (Jamuna) river floodplain using remote sensing & GIS data

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The purpose of this study is to develop a disaster reduction approach in disaster prone area of the Jamuna floodplains of Bangladesh. River bank erosion and recurrent floods dictates the livelihood of the huge population living on the Jamuna floodplain. Extensive resource loss, displacement of settlement, loss of valuable agricultural land and infrastructures due to bank erosion and flooding undermines resources base and economic strength of the local area. Therefore, mitigative measures at local scale are essential to develop so that damage extent can be minimized and risk can be averted. Given this background the present initiative employed extensive field based survey and interpreted satellite images of different years. The field survey documented and assessed erosion and flooding events and analyzed satellite images in order to identify and measures the extent and rate of bank erosion and flood related damages including agricultures and socio-economic infrastructures. The study developed risk and resources map of the area and highlighted disaster reduction strategies at local and regional scale.