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Riverbank Erosion in Majuli Island of India: Process, Policy and Paradox

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Riverbank erosion by River Brahmaputra in the Majuli Island in Indian state of Assam has led to the displacement of thousands of people, and rendered them landless and homeless. However, those affected by riverbank erosion do not qualify for any assistance by the Central and State governments because erosion is not considered as a natural hazard under Indian laws. In this paper, an attempt has been made to show that riverbank erosion in Assam is not a case of simple lateral erosion but a complex process involving mass migration of river channel and associated bank failure. The fluvial geomorphology of Brahmaputra is analysed with the help of Sinuosity Index and Braiding Index of a segment of River Brahmaputra in the island of Majuli to understand why riverbank erosion in Brahmaputra is sudden and destructive. After explaining the complex geomorphological processes involved in riverbank erosion in Majuli, the paper questions the rationale for excluding riverbank erosion from the list of natural hazards, and provides a compelling case for re-examining, re-defining, and re-classifying hazards in India.

Keywords: Brahmaputra, Riverbank Erosion, Sinuosity Index, Braiding Index, Natural Hazard