Epic Erosion on the Brahmaputra

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Erosion in the northeastern state of Assam in India is creating devastating effects for local villages. As of now, 4,000 km$^2$ of land has been eroded, which has wiped out 2500 villages and impacted over 5 million people. Through recent studies, the Committee for Developing Mitigation Strategies, comprised of experts from Assam and the United States, 25 vulnerable locations have been identified, and it is estimated that 7.4% of Assam's land has been lost due to riverbank erosion and channel migration. The key factors behind this extensive erosion are high discharge levels, large scale braided channels, and the rising of the riverbed due to sediment deposition.

The committee recommended several steps to relieve damage. Extended river monitoring and testing is needed to better understand problems. Also, new technologies such as GIS and satellite imaging need to be utilized. Strengthened monitoring in key locations and villages would also help discover problems before they become devastating. Actions that can prevent erosion include strategic dredging and protecting eroding banks with physical anchors. Although some action has been taken, it has not been enough, primarily because measures enacted were fairly broken up, and were done either in emergency situations, or as funds were made available. In order to fully mitigate possible effects, these solutions need to be region-wide, and done prior to disasters, rather than afterwards.

River or River Basin: Brahmaputra River

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