Geophysical Research Abstracts
Vol. 19, EGU2017-18072, 2017
EGU General Assembly 2017

Dynamics of Fluvial Regime and its impact on the population displacement in the Gangetic Plain of West Bengal

Suraj prasad (1) and Anjan Sen (2)

(1) Delhi School of Economics, University of Delhi, India (surajprasad27@gmail.com), (2) Delhi School of Economics, University of Delhi, India (dr.anjansen@gmail.com)

River bank erosion is one of the major natural hazards in India. Basically it is a natural phenomenon, but the role of anthropogenic factor to trigger the problem is undeniable. In West Bengal, river bank erosion in Ganga River has become an acute problem in Malda and Murshidabad districts. In Musrshidabad district alone, more than 350 Km2 land has been lost in the past four decades and more than 80000 persons have been displaced in the entire state of West Bengal. The trigger for such large scale erosional work has been both natural as well as anthropogenic. Ganga River in West Bengal flows through an underdeveloped river channel, leading to frequent changes in the course of the river that further cause riverbank erosion along the riparian zones of the river. The construction of Farakka Barrage in Malda district in 1975 has only exacerbated the problem, causing siltation and associated erosional processes. The present work deals with the social impacts of the physical process of erosion, and primarily focuses on the migration pattern of uprooted communities of Malda and Murshidabad districts. The study uses Landsat Images and SRTM DEM to assess the changes in the course of Ganga River and primary survey to discern the present and future trends of migration in the affected areas, and concludes with an assessment of the social-ecological-landscape relationships in a region undergoing large scale physical as well as demographic change.

Keywords: River Bank Erosion, Ganga River, Farakka Barrage, Landsat, SRTM DEM, Migration