

ISBN: 978-93-87973-28-2

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Role of Geomorphological Features to Determine Sustainable Flood Management Strategies in Bhagirathi-Padma River Bank Areas

A. Gayen¹ and A. Zaman²

¹Senior Hydrogeologist, Rajiv Gandhi National Ground Water Training & Research Institute (RGNNGWT &RI), Central Ground Water Board (CGWB), Raipur, Chhattisgarh, India

Email: anadigayen1968@gmail.com

²Emeritus Professor, Centurion University of Technology and Management, Paralakhemundi-761211, Odisha, India

Email: profazaman@gmail.com

Abstract

The district Murshidabad lies within the Younger Deltaic Plain and the Bhagirathi Recent Surface has been considered as the severe flood affected district of West Bengal state, India. Murshidabad is highlighted one in terms of occurrence of flood due to its typical geographic location and diverse geomorphological characteristics. The district witnessed frequent floods because of high intensity of rain fall in the basin area of Bhairavi-Jalangi-sealmari rivers. Inflow of flood water from Ganga-Padma in high spate condition further aggravates the congestion of drainage. Lack of proper drainage is also responsible for flood in the upstream side in the western part as well as beyond the Berhampur town. Flood management may be undertaken through physical and socio-economic measures, which includes the scientific control of reservoirs; construction of new barrages, improvement of river channels, removal of human encroachment along river side, timely flood warning and forecasting, preparedness of essential services along with proper flood plain planning are indispensable. Addressing of socio-economic problems may help to combat the flood situation in an effective way. Careful study on surficial geomorphic