

Geochemical Analyses of Sediment, Seawater and Ground Water from the Region In and Around the Coastal Areas of Bay of Bengal

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Bangladesh (Bengal Basin) lies within the floodplain of the Ganges and Brahmaputra Rivers (GBR). As one of the world's largest river systems, the GBR transports the single largest sediment flux and the fourth highest water discharge to the oceans. The purpose of this study is to describe the sediment, seawater and groundwater geochemistry and distribution of arsenic in GBR mouth, adjacent with second world longest sea beach area of the Bay of Bengal Coast, Bangladesh. According to Hexadiagram, 60 % of the ground water samples were $\text{Na}^+\text{-Cl}^-\text{-SO}_4^{2-}$ and 75 % samples were $\text{Na}^+\text{-Cl}^-$ type. The results indicate that the magnitude of ground water qualities depends on the size of the area affected, sea water recharge, the correlations between dissolved arsenic with iron, and finally the type of the sediment involved.

Keywords: Bengal Basin, Arsenic (As), Sediment, Coastal Ground water

