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## A review of hydrogeological studies of Barak valley, Assam, India

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This article attempts to find the missing links in water resource development in the Barak Valley. The Barak Valley which is bounded by 24°08' N to 25°08' N latitudes and 92°01' E to 93°15' E longitudes occupies an area of 6,921 Km<sup>2</sup> in lower Assam. This fertile valley is one of the main contributors in agricultural, fishery, oil and hydrocarbon product to the state. The role of water is vital in successful production of these resources. The common hydrological issues facing in the valley can be identified as high fluctuation of water resources during dry and wet seasons leading to water logging, and acute shortages of water, confinement of high concentrations of arsenic and iron in Holocene sediment, influence of tectonic on aquifers leading to either high or low yield. Despite of aforementioned issues, very limited attempts has been targeted for elucidating these issues. It is high time for a detail studies on integrated hydrogeological approach emphasizing on surface and groundwater interaction, water resource fluctuation, hydrogeomorphic studies, morphotectonic and hydrogeochemical evaluation for the better water resource management of this valley.

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