

Sediment Distribution and Sediment Chemistry of the Thanlwin Estuary and Nearby Shorelines, Mon State, Myanmar

Tun Tun Zaw¹ and Day Wa Aung²

¹Assistant Lecturer, Department of Geology, Mawlamyine University

²Professor and Head, Department of Geology, University of Yangon

Abstract

The study area situated in western part of the Mon State occupying the Thanlwin Estuary and nearby shorelines represents the different sediment distribution pattern, diverse sediment type, different sediment sources and different sediment texture which somewhat scenario needed to be studied as a scientific goal. The Thanlwin River which is the fifteenth highest sediment discharging rank on the world and its water discharge rank is seventeenth in position on the world is now under study representing an interesting fact in its sedimentology. In the present study, sedimentation pattern and their hydrodynamic condition, and sediment distribution by the different flow condition also superimposed by marine influence have given the prime interest for the study. Moreover, sediment chemistry as also sustaining fact for the sediments confined in the area has to be focused.

The study area being the river mouth and coastline governs the different type of sediments occupying in different area. In the present study, at least five sediment facies with their distinct characteristics can occur. They are sand facies, silty sand facies, gravelly sand facies, mud facies, and salt marsh facies. Sand facies occupies the wide area coverage especially in the areas such as western Bilugyun Is., Kyaikkhami and Setse Beaches, and upper and lower parts of the Thanlwin River mouth. In some area, sand deposition also associated with mud facies is somewhat the same as tidal mud flat deposits. Therefore, tidal deposition is the major depositional environment in the area. This fashion can be also interpreted as extensive tidal flat facies of macrotidal estuary.