

The Neotectonic Study of Subduction Related Active Kaladan- Myrauk U Fault, Rakaing Coastal Region

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ABSTRACT

The study area lies along the western base of the Indo-Myanmar ranges in the Rakhine Coastal region, existing in the India-West Burma collision zone within the accretionary wedge region. The subduction deformation front area, including parallel linear array active overthrusts, i.e. from west to east, Chittagaung Coastal Fault, Kaladan Fault, Churachandpur-Mao Fault, Kabaw Fault systems (Amitav Bordoloi et al., 2015). Among them, the present area is located along the Mrauk U Fault that is also known as Kaladan-Mrauk U Fault. The study covers the area between Latitude N20° and N22° and between Longitude E92° and E94°. In the area, most of the Miocene sedimentary rocks show ENE dipping with high angles (~50°-65°), and some are in highly folded. The shear-sense indicators show dextral reverse on several outcrops. From the stress field analysis, the compressional field shows a NE-SW regime and the dilational field shows a NNW-SSE regime. The evidence of right-stepping dextral-slip fault with local scale pull-apart basins are found in Mrauk U. Thus the study may have identified two different senses of shear along a fault trace.