Short Note

Overview of the Baram Delta province, Brunei Darussalam

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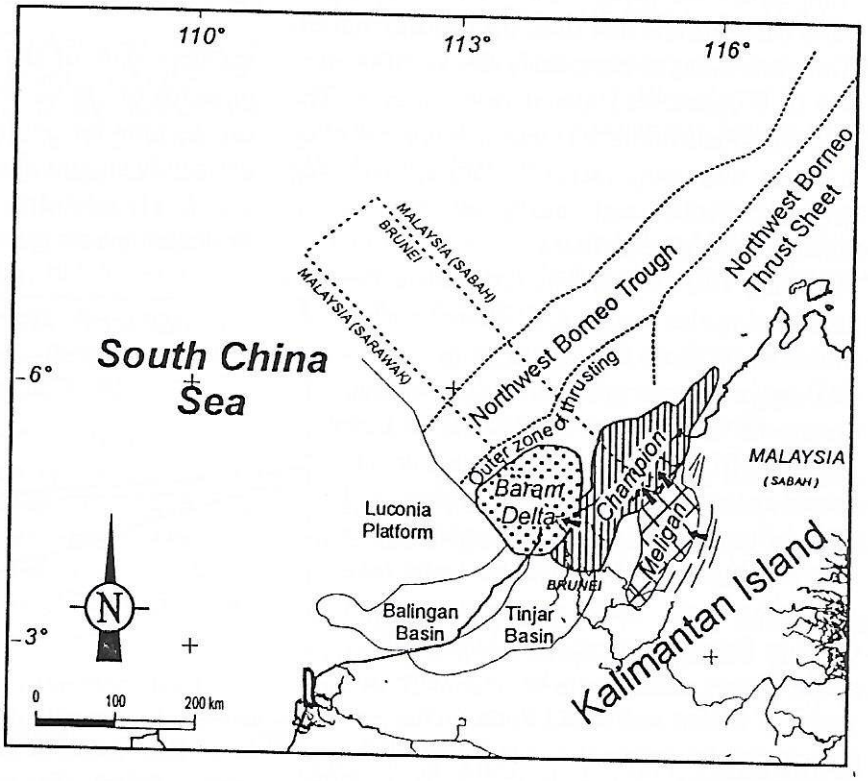
The Baram Delta Provinces is located on the previously active margin of Brunei Darussalam that flanks Northwest Borneo along the South China Sea. The delta province evolved over a broad deformation zone, the Rajang –Crocker accretionary belt. Along strike the delta province extends from Sarawak across Brunei into Sabah. Delta complex consists of depocenters shifting with time and prograding mainly to the NW, less often to the N.

The main prospective sequence of the Baram delta was deposited from the Early Miocene to present day in one overall regressive phase with superimposed a number of major transgressions. The maximum total thickness of the successive delta approximately 13-14 km.

Three main delta systems can be distinguished :

- The Meligan Delta System (the Proto-Champion Delta, or early Baram Delta) is the oldest, pre–Middle Miocene, delta system, only preserved as erosional remnants in the uplifted and deeply eroded hinterland of onshore Sabah and Brunei.
- The Champion Delta System (the East Baram Delta), with its main axis of outbuilding generally along the border between Brunei and Sabah. Its development is mainly in the Late-Middle Miocene to Early Pliocene, in Brunei's present day onshore and eastern offshore area. The structural style is complex, with syn- and post-depositional multidirectional deformation and uplift. Mainly N-S trending, narrow anticlines/ ridges, separating wide synclines and major SW-NE trending syn-sedimentary counter – regional faults, are the most conspicuous elements in addition to syn-sedimentary down-to-basin growth faults.
- The Baram Delta System, with its main axis of outbuilding situated in Brunei's western offshore area. This is the youngest phase in the Baram Delta Province, which has been prograding onto marine continental shelf during Early Pliocene to present day. The delta is a wave dominated micro/meso-tidal delta. The structural style is dominated by E-W to NE-SW trending syn-sedimentary down-to basin growth faults.

The successive delta system resulted from a process of deposition, deformation, erosion and subsequent re-deposition in younger depocenters farther seawards. The sediments in the Baram Delta Province have been through various phases of reworking.



Tectono-stratigraphic provinces of the North West Kalimantan active margin. The arrows show the consecutive Neogene delta progradation over the collisional margin of North West Kalimantan (after Sandal, S. T., 1996)