

## Paper 35

**The Tertiary tectonic evolution of Southern Sumatra, Indonesia**

KUSNAMA, S. ANDI MANGGA &amp; D. SUKARNA

Geological Research and Development Centre, Indonesia.

Physiographically the southern part of Sumatra can be divided into four zones, from the west to east: Mentawai, Bengkulu, Bukit Barisan and Jambi-Palembang Zones. They are trend northwest-southeast. These zones have been established as a result of the subduction activities during Tertiary times. They occurred since the (middle) Paleogene from the southwest produce a different tectonic setting for each zoning.

The Mentawai Zone is a non-volcanic arc, occupied by the Oligocene-Miocene mélange complex and fine to coarse clastic "trench" sediments. The Bukit Barisan range is a continental,

volcanic arc which was formed by the subduction of the Indian-Australian Plate to the Eurasian Plate. The volcanic rocks of this range are characterized by andesitic to basaltic compositions, typical of a calc-alkaline island arc setting. Between the Mentawai Zone and Bukit Barisan range is the Bengkulu Zone which comprises of turbidite sequences of the fore arc region. East of the Bukit Barisan range is the Jambi-Palembang Zone. This zone is characterized by the transgressive and regressive sedimentary rocks deposited in back arc basins. The Bengkulu and Jambi-Palembang Zones have a good hydrocarbon potential.