

Miocene stratigraphy of northwest Borneo Basin

RICHARD MANI BANDA¹ & EIICHI HONZA²

¹Geological Survey of Malaysia
P.O. Box 560, Kuching, Sarawak

²Geological Survey of Malaysia
P.O. Box 1015, Ipoh, Perak

The Regional Mapping Programme of Geological Survey of Malaysia, Kuching, Sarawak, undertook the detailed mapping of Miocene sediments in northwest Sarawak at 1:50,000 scale. The results presented here are based on the sedimentological, structural and biostratigraphic analyses. Four formations are defined in this area. They are the Miri Formation in the Mid to Late Miocene, the Lambir Formation in the early Mid Miocene, the Sibuti Formation in the mid Early Miocene and the Suai Formation from early Early Miocene. Additional member is the Subis Limestone Member in the lower part of the Sibuti Formation which is located along the central anticlinorium of the Sibuti Formation. The former Belait Formation in the south wing of the Subis Anticlinorium is correlated to the same horizon as the Lambir Formation. The Suai Formation is newly proposed here instead of the former Setap Formation. Setap Village locates within the Sibuti Formation in our compiled geological map. Therefore, we cannot use that name for the formation older than the Sibuti Formation. The major trend of the Miocene formations is the NNF-SSW anticlinorium associated with minor foldings within them. They are blocked by the faults trending NNW-SSE. We could define several faults blocking approximately perpendicular to the trend of the formations. Displacement of most faulted blocks is not so prominent that we can correlate sedimentary units to the next block. However, there are two faults which have vertical and horizontal displacement components more than several kilometers. The southern Suai Fault trending approximately N-S associated with the secondary fault has great displacement to form the formation boundary between the Suai and the Sibuti Formations. Some sediments supply directions are also discussed on the basis of paleocurrent analysis of turbidites within these formations.
