

Geological Map of Nepal - 2000, Scale 1:1,000,000

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The geotectonic divisions of Nepal from south to north comprises the Gangetic Plain, the Sub-Himalaya, the Lesser Himalaya and the Higher Himalaya.

THE GANGETIC PLAIN. It represents Pleistocene to Recent Gangetic alluvial deposits over 1000m thick belonging to the last episode of the Himalaya upheaval. The Main Frontal Thrust, expressed as a prominent topographic break, marks its northern boundary.

THE SUB-HIMALAYA. It represents over 6 km. thick Neogene molasse sediments of Siwalik overthrust by older Lesser Himalayan rocks along the Main Boundary Thrust. The Siwaliks consist of shale, sandstone, pseudoconglomerate, conglomerate, pebble and boulder beds.

THE LESSER HIMALAYA. It consists of intensely folded meta-sedimentary rocks of the Kuncha and Nawakot Groups delimited by the Main Boundary Thrust and the Main Central Thrust and is 60 to 100 km. wide. It is overridden by crystalline thrust sheets in the form of large klippen masses of fossiliferous Paleozoic Phulchauki Group and unfossiliferous Bhimphedi Group rooted in the Higher Himalaya. The metasediments are overlain unconformably or in tectonic contact by Permo-carboniferous to Miocene sedimentary succession of Tansen Group.

THE HIGHER HIMALAYA. This consist of a thick sequence of Higher Himalayan Crystallines and the overlying Tibetan Sedimentary Zone. The Higher Himalayan Crystallines consist of 5-10 km. thick slab of high grade metamorphic rocks representing the Pre-cambrian basement, a part of the upper crust that has been reactivated due to crustal shortening as a result of continent - continent collision during the Himalayan orogeny. Tibetan Sedimentary Zone consists of a thick folded fossiliferous succession of Late Cambrian to Cretaceous age.