

Tectonic and Mineral Deposits of Mainland Southeast Asia

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Two micro continents - Indosinia and Sinoburmalaya - rifted from Gondwanaland and drifted northward. Indosinia collided with the Yangzi-Huanan terranes along the Red River Suture in the Devonian or early Carboniferous period and became part of the East Asia continent. Sinoburmalaya collided with the East Asia continent during the Indosinian Orogeny. Indochina is an amalgamation of the Sino-Vietnam, Viet-Lao, Ultradit, and Khorat-Kontum terranes. During the Early Cretaceous, an eastward-dipping subduction zone developed between the Myanmar subplate and the western Indochina subplate and formed the arc-trench gap (Central Myanmar Basin terrane) and back-arc magmatic belt (Kachin subterrane of Shan-West Malay terrane) and the thrust belt of Myanmar (Arakan-Yuma terranes). Mineral deposits are distributed as follows: In the Sino-Vietnam terranes, gold, iron, copper, lead-zinc, ruby, pagodite, and bauxite deposits are known. Gold, tin, phosphate, lead-zinc, iron, rare-earth minerals and pagodite deposits are found in the Viet-Lao terrane. Gold, bauxite, lead-zinc, copper, ruby, sapphire, tin, pagodite, potash, and halite deposits are present in the Khorat-Kontum terrane. Tin, tungsten, stibnite, fluorite, lead-zinc, copper, ruby and sapphire, and gem-quality jadeite (Myanmar) deposits are located in the Shan-West Malay terrane. Amber and porphyry copper deposits are found in the Central Myanmar Basin terrane. Chromium and copper are located in the Arakan Yuma terrane.