

Sunghai Kahayan Watershed

Central Kalimantan occupying a surface of 153,800 km² is the biggest Indonesian province on the island of Kalimantan. It is mostly tropical rain forest (82 %), while swamps, rivers, lakes occupy approximately 2%, and agriculture land is about 3%. Palangkaraya the capital of the province is in the upstream regions of the Kahayan River, and was formerly known as the village of Pahandut in the regency of Palangkaraya. In the local Dayak language, *palangkaraya* means a holy container. The town occupies an area of about 2,400 square kilometers and is inhabited by 90,000 people. Topographically, Central Kalimantan consists of three areas: the northern area which is mountainous and reaches far into the hinterland, the dense central area, and the fertile tropical forest. Almost four-fifths of Central Kalimantan is made up of tropical forests, producing valuable commodities such as rattan, resin and the best woods. Central Kalimantan has a hot and humid climate. The average temperature is 30 degrees Celsius and the annual rainfall ranges from 2800 to 3400 mm. Kahayan River runs from North to South trough Kualakulun, and Palangkaraya. The upper stream and down stream is located in Kalukung Montain and Pulangpisau.

Carbon sequestration and nutrient depletion is being studied at Klampangan village. The carbon dioxide sequestering function of peatland ecosystems is seriously threatened by land-use and land-cover change - drainage and fires associated with plantation development and logging that leads to organic matter oxidation and increased emission of greenhouse gases. We will also assess the impact of land-use and land-cover change on soil fertility, crop yield and hence rural livelihood. Key factors driving the degradation of peatlands will be identified and incentives for peatland management will be suggested.