Topography

Topography and Physiography

The physical condition of the Central Kalimantan Province consists of coastal and swamp areas in the Southern part along ± 750 km of the Java Sea coast, which stretches from East to West with a height between 0–50 m above sea level (asl) with the slope level of 0 % -8%.

Table 1. The Spread and Width of each Class of Altitude in the Mainland of Central Kalimantan Province

	Class of Altitude		
No.	**(m asl)**	**Width (Ha)**	**Percentage**
1.	0 - 7	2,105,510	13.69
2.	7-25	2,269,717	14.76
3.	25-100	6,398,923	41.66
4.	100 – 500	3,327,459	21.63
5.	> 500	1,278,391	8.31

Meanwhile the land and hill areas are in the middle, while the mountains are in the North and Southwest with an altitude of 50 - 100 asl and an average slope of 25%.

Table 2. Width of each Slope Class in the Mainland Region of Central Kalimantan Province

No	**Slope Class (%)**	**Width (Ha)**	**Percentage**
1.	0 - 8 (Flat)	6,940,144.05	46.12
2.	8-15 (Ramps)	1,552,839.80	10.32
3.	15 - 25 (Somewhat Steep)	3,977,865.28	26.44
4.	25-40 (Steep)	1,694,814.85	11.26
5.	> 40 (Very Steep)	881,357.24	5.86

Central Kalimantan Province consists of 6 physiography areas, but is dominated by land and inland hills.

Table 3. Physiography Areas in Central Kalimantan Province

No	Area	Width (Km2)
1.	Coastal lowlands	36,870
2.	Outback steps	37,310
3.	Mainland and inland hills	57.124
4.	Schwaner Mountains	9,000
5.	Muller Mountains	11,000
6.	Meratus Mountains	2,300

Geology

Based on the regional tectonic framework of Kalimantan, the area of Central Kalimantan Province is included in the Barito basin which is located on the Southeast side of the Sunda micro plate. The Northern part is separated by the Kutai basin by the "*Paternoster Fault System*" and "*Barito - Kutai Crose Height*". The East side is separated from the Asem-Asem basin and the sand basin by the Meratus mountain range. The South side is an indistinct boundary with the East Java basin and on the West side by the Sundanese height.

The division of the Barito Basin Stratigraphy from old to young is as follows:

• *Pre-Tertiary Basic Rocks*, consisting of metasediment and stagnant rocks.

• *Tanjung Formation*, the lower part is dominated by sandstone and *kongmerat* with coal intercalation, the middle part are the alternating of sandstone*, lanan* stone and *lempung* stone, and the upper part consists of *lempung gampingan* stone with intercalation of *gampingan* stone and coal.

• *Montalat Formation*, consisting of quartz sand, rather dense, with insertion of *lempung* stone and coal.

• *Berai Formation*, the lower part consists of alternating *gamping* stone with *napal*, the middle part is in the form of a part of *mosif gamping* stone in the form of a reef frame and at the bottom consists of alternating *gamping* stone with *lempung* stone and coal.

• *Warukin Formation*, the bottom is of the alternating between sandstone with *lempung* stone and *gamping* stone intercalation, the middle is of the alternating of sandstone*, lempung* stone and coal.

• *Dohor Formation* consists of sandstone, *lanan* stone with intercalation of *lempeng* stone and coal as well as older rock fragments.

Type of Soil

Most of the mainland area of Central Kalimantan consists of red yellow podsolic land. Basically the type of soil in Central Kalimantan consists of organosol, laterite, regosol, alluvial, podsol, lithosol and latosal.

Table 4. Area of each Type of Land in the Mainland of Central Kalimantan Province

No	Soil Type	Width (Ha)	Percentage
1.	Red Yellow Podsolic	6,033,693	39,60
2.	Organosol	2,534,766	11,63
3.	Laterite	2,118,460	13.90
4.	Regosol	1,452,305	9.53
5.	Alluvial	1,423,803	9.34
6.	Podsol	1,040,452	6.51
7.	Lithosol	413,793	2.71
8.	Latosol	269,360	1.77

Climate

Based on the Schmid and Ferguson climate classification, the region of Central Kalimantan Province is of type A climate, this is indicated by the presence of more wet months than dry months and the pattern of rainfall distribution is almost even across all regions.