

Laos (Lao People's Democratic Republic)

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Location and area

Laos is an independent state in South East Asia, bounded on the north by China and Vietnam, on the east by Vietnam, on the south by Cambodia, on the west by Thailand, and on the northwest by Myanmar (Burma). The total area is 236,800 km². (Microsoft Encarta Encyclopedia 2002). Other sources mention a land area of 237,035 km² ((www.geoanalytics.com/bims/la.htm)).

Topography

Laos consists of a very mountainous area, extending north and south throughout most of the country, and a small area of lowland on the southern and southwestern borders. The mountainous area covers about 90 % of the country. The maximum elevation is Phou Bia in the north (2,820 m a.s.l.). In the south, heights reach about 1,980 m). (Microsoft Encarta Encyclopedia 2002).

Climate

The climate of Laos is tropical, but wide variations in temperature occur because of variations in elevation. The wet summer season prevails from about May to October, with rainfall averaging about 1,800 mm, and a dry, cool season extends from about November to February; the remainder of the year is hot and humid. At Vientiane, temperatures in April, the warmest month, average 29° C; in January temperatures average 22° C. (Microsoft Encarta Encyclopedia 2002).

Water

The Mekong River, the principal river of Laos, enters in the northwest from Thailand, flows south along the Laos-Thailand border, and enters Cambodia in the southwest. The tributaries of the Mekong River in Laos rise in the mountains and flow through deep valleys. (Microsoft Encarta Encyclopedia 2002).

Land use

About 55 % of Laos is covered with forest. Agriculture is the principal economic activity of Laos. Rice is the chief food crop (Microsoft Encarta Encyclopedia 2002).

Wetlands

Originally (before human influence) “freshwater swamps” covered an area of 659 km² (www.geoanalytics.com/bims/la.htm).

As a part of the Wetland Management programme of the Mekong Secretariat, the Wetland Unit of the Department of Forestry mapped and classified the wetlands within 50 km of the Mekong mainstream using 1: 250,000 Landsat images. Their results are presented in Table 1. Due to the scale of mapping, the lack of ground truthing and inexperience in interpretation

of satellite images it is questionable whether any reliance can be placed on these figures (Claridge 1996).

Table 1: Estimated area of wetlands (in ha) within 50 km of the Mekong mainstream (Anon. 1993, in Claridge 1996)

	Floodplain wet rice	Permanent dam / reservoir	Permanent freshwater lake	Floodplain grassland	Permanent flooded grassland	Seasonally flooded grassland	Seasonally flooded shrubland	Permanent swamp (trees)	Seasonally flooded swamp (trees)	Pool in perennial river	Total
Vientiane prefecture	92,886	38,376	376	702	541	1,404	2,964	435	120	-	137,804
Vientiane	27,342	45,000									72,342
Xayabury	9,930										9,930
Luangprabang	1,716										1,716
Hongsa	4,857										4,857
Oudomxay	3,541										3,541
Bokeo	4,563										4,563
Luangnamthe	8,502										8,502
Boriknamxay	47,324							955			48,279
Khammuane	56,863		8,502							2,886	68,251
Savanakhet	192,654		2,964					18,409			214,027
Champasack	251,728		1,092	6,552			42,510	7,410			309,292
Saravane	68,172						13,884				82,056
Total	770,078	83,376	12,934	7,254	541	1,404	59,358	27,209	120	2,886	965,160

Peatlands

The Luang/Sakham Marsh (20 km²) partly consists of “peat shrubland”. “The central part of the wetland is partially covered with shrubs and grass and, in places has soil with sufficient peat content that local people sometimes use it in the dry season to cook fish caught in channels.” (Claridge 1996).

Nong Nia (Paksane area) is a small permanent lake approximately 800 metres by 150 metres surrounded by areas of boggy marshland (Claridge 1996).

Nom Long is a permanent freshwater marsh. Even in the dry season virtually the whole area has standing water with emergent vegetation. Several marshy valleys lead off the wetland and these support pockets of freshwater swamp forest (Claridge 1996).

According to the interpreted World Soil Map (Van Engelen & Huting 2002) no histosols exist in Laos and 4,068 km² of gley soils.

Mire and peatland losses

Large parts of the lowland wetlands are among the most densely settled areas in the country, and generally have the longest history of settlement (Claridge 1996).

In the total 2,000 ha of the That Luang Marsh gradual reclamation by farmers and the Vientiane Municipality had increased the area under rice to over 1,000 ha by the early 1990s. The municipality dug part of the main drainage canal through the swamp and constructed a pumping station to take water from this canal to irrigate the reclaimed paddy (Claridge 1996).