

Krong Trai Nature Reserve

Alternative site name(s)

Suoi Trai, Tay Son

Province(s)

Phu Yen

Status

Decreed

Management board established

Yes

Latitude

13°01' - 13°10'N

Longitude

108°46' - 108°57'E

Bio-unit

05b - South Annam



Conservation status

On 22 November 1979, the former Phu Khanh Provincial People's Committee established Tay Son Protected Forest, with a total area of 19,800 ha (Anon. 1990). On 9 August 1986, this area was included on Decision No.194/CT of the Chairman of the Council of Ministers as a 19,000 ha nature reserve with the name Suoi Trai (Trai stream) (MARD 1997). A nature reserve management board was established by the former Phu Khanh Provincial People's Committee on 14 November 1986 (Krong Trai Nature Reserve Management Board 2000).

An investment plan, prepared in 1990, proposed establishing a 22,290 ha nature reserve with the name Krong Trai (Anon. 1990). This investment plan was approved by Phu Yen Provincial People's Committee by Official Letter No. 461/LN, dated 30 November 1990 (Anon. 1990). This investment plan was approved by the former Ministry of Forestry (FPD 1998).

In 1995, a revised investment plan was prepared, which proposed establishing a 27,290 ha nature reserve. This investment plan was approved by Decision No. 579/QD-UB of Phu Yen Provincial People's Committee, dated 30 December 1995, and by Official Letter No. 472/KH of MARD, dated 8 March

1995 (Krong Trai Nature Reserve Management Board 2000).

Topography and hydrology

Krong Trai Nature Reserve is situated in the transition zone between the Central Highlands and the coastal zone of south-central Vietnam. The topography of the nature reserve consists of two types. The east and north-east of the nature reserve is characterised by low hills, including Mo O (434 m), Ha Gian (431 m), Ca Te (560 m), Hon Dat (590 m), Hon O (574 m) and Hon Tao (414 m). The remainder of the nature reserve is characterised by flat areas with some scattered low hills about 150 m in elevation.

Streams in the eastern part of the nature reserve feed the Cha Rang river. Streams in the western part feed the Lam and Ba rivers. Most streams within the nature reserve are dry during the dry season, except in a small swampy area in the south-west of the nature reserve.

Biodiversity value

According to the investment plan, the nature reserve includes 16,005 ha of natural forest, representing 72% of the total area. Krong Trai Nature Reserve supports three main forest types: evergreen forest (1,003 ha), semi-deciduous forest (7,111 ha) and

deciduous forest (7,891 ha). Other habitats present include grassland, scrub and swamp (Anon. 1990).

The evergreen forest is distributed in hilly areas and is dominated by members of the Dipterocarpaceae and Fabaceae. Semi-deciduous forest is distributed in areas that have been subjected to clearance for shifting cultivation, fire or over-exploitation. This forest type is dominated by *Lagerstroemia calyculata* and *Cratogeomys formosum*. Deciduous forest is widely distributed in the nature reserve and is dominated by *Dalbergia nigrescens*, *Pterocarpus macrocarpus*, *Lanea corpmandelica*, *Careya sphaerica*, *Stereospermum cylindricum* and *Cratogeomys formosum* (Anon. 1990).

A field survey in 1990 recorded 236 vascular plant species. The families with the greatest number of species are the Euphorbiaceae, Caesalpiniaceae, Poaceae, Fabaceae and Moraceae. The nature reserve supports at least nine plant species listed in the *Red Data Book of Vietnam*, including *Aquilaria crassna*, *Dalbergia bariensis*, *D. cochinchinensis*, and *D. annamensis*; and a number of species with high economic value, such as rattan, palms and medicinal plants (Anon. 1990).

A total of 262 vertebrate species have been recorded at the nature reserve, comprising 50 mammal, 182 bird, 22 reptile and eight amphibian species. Species of particular conservation importance that have been recorded at Krong Trai include Banteng *Bos javanicus*, Gaur *Bos gaurus*, Green Peafowl *Pavo muticus* and Crested Argus *Rheinardia ocellata* (Anon. 1990). However, the current status of these species is unclear; Duckworth and Hedges (1998) reviewed the evidence for the continued occurrence of Gaur and Banteng at Krong Trai and concluded that it was 'provisional'. In the past, Krong Trai was renowned as a site for Siamese Crocodile *Crocodylus siamensis* (Vu Van Dung pers. comm.) but there is no evidence for the continued occurrence of this species at the site.

Conservation issues

Buffer zone of Krong Trai Nature Reserve includes parts of Son Phuoc, Krong Pa, Suoi Bac and Ta Hu communes, and has a total area of 5,344 ha. The total population of the buffer zone is 1,375 people, while a further 3,184 people live inside the nature reserve

(Krong Trai Nature Reserve Management Board 2000). The inhabitants of the nature reserve and buffer zone belong mainly to the E-de ethnic group, who have a long tradition of forest-resource use.

Krong Trai Nature Reserve management board perceive the two main threats to the nature reserve to be encroachment of local communities onto forest land and clearance of land for shifting cultivation (Krong Trai Nature Reserve Management Board 2000).

Other documented values

Krong Trai Nature Reserve lies on the lower watershed of the Ba river, and contributes to the protection of the catchment of this river.

Related projects

The nature reserve receives investment funding from the national 661 Programme (the Five Million Hectare Reforestation Programme), following decision No. 200/QD-UB of the provincial people's committee, dated 12 June 1999 (Krong Trai Nature Reserve Management Board 2000).

Literature sources

Anon. (1990) [Investment plan for Krong Trai Nature Reserve, Son Hoa district, Phu Yen province]. Tuy Hoa: Phu Yen Provincial Forest Protection Department. In Vietnamese.

Duckworth, J. W. and Hedges, S. (1998) Tracking tigers: a review of the status of Tiger, Asian Elephant, Gaur and Banteng in Vietnam, Lao, Cambodia and Yunnan province (China) with recommendations for future conservation action. Hanoi: WWF Indochina Programme.

Krong Trai Nature Reserve Management Board (2000) [FPD questionnaire]. Eacharang: Krong Trai Nature Reserve Management Board. In Vietnamese.

Scott, D. A. (1989) A directory of Asian wetlands. Gland: IUCN.