

Kon Ka Kinh Nature Reserve

Alternative site name(s)

None

Province(s)

Gia Lai

Status

Decreed

Management board established

Yes

Latitude

14°09' - 14°30'N

Longitude

108°16' - 108°28'E

Bio-unit

Ma - Central Annam Mountains



Conservation status

Kon Ka Kinh was included on Decision No. 194/CT of the Chairman of the Council of Ministers, dated 9 August 1986 (MARD 1997), which decreed a 28,000 ha nature reserve for the conservation of "sub-tropical high mountain forest [with] gymnosperm species prevailing" (Cao Van Sung 1995). In 1999, an investment plan was prepared by BirdLife and the Forest Inventory and Planning Institute (FIPI). In the same year, the investment plan was approved by both Gia Lai Provincial People's Committee and the Ministry of Agriculture and Rural Development (MARD). The area of the nature reserve stated in the investment plan is 41,710 ha (Le Trong Trai *et al.* 2000). A nature reserve management board was formed in 1999, and, following the approval of the investment plan, the size of the management board is expected to increase during 2000.

Kon Ka Kinh Nature Reserve is located in Kon Phe, Dak Roong and Kroong communes, K'Bang district, and Ha Dong and Ayun communes, Mang Yang district, Gia Lai province (Le Trong Trai *et al.* 2000).

Topography and hydrology

Kon Ka Kinh Nature Reserve is situated on the Kon Tum Plateau in the Central Highlands. To the north of the nature reserve is Mount Ngoc Linh, the highest mountain in the Central Highlands. To the south and west, the topography is flatter, and altitudes are below 500 m. Altitudes within the nature reserve range from 570 m in the Ba river valley, to 1,748 m at the summit of Mount Kon Ka Kinh. There are several mountain peaks above 1,500 m in the study area. To the south of the summit of Mount Kon Ka Kinh, there is a flat plateau, 2,000 ha in extent (Le Trong Trai *et al.* 2000).

The nature reserve straddles two main watersheds: streams originating in the east of the nature reserve feed the Ba river, which flows east, into the South China Sea; whilst the west of the nature reserve forms part of the catchment of the Mekong River. Due to the steep mountain topography, rivers and streams originating in the nature reserve are often short, narrow and fast flowing, with many waterfalls (Le Trong Trai *et al.* 2000).

Biodiversity value

Kon Ka Kinh Nature Reserve contains 33,565 ha of natural forest, equivalent to 80% of the total area of the nature reserve. The nature reserve supports a range of montane habitat types across an altitudinal range from 700 to 1,748 m. Of particular importance are 2,000 ha of mixed coniferous and broadleaf forest containing *Fokienia hodginsii*: within the protected areas system of Vietnam, this vegetation sub-type is known only from Kon Ka Kinh (Le Trong Trai *et al.* 2000).

A total of 652 vascular plant species have been recorded at Kon Ka Kinh. Many of these species are of high economic value, particularly the timber species *F. hodginsii*. Forty two species of mammal, 160 species of bird, 51 species of herpetile and 209 species of butterfly have also been recorded at the nature reserve. These include five restricted-range bird species and three mammal species endemic to Indochina. One of these endemic mammal species, Truong Son Muntjac *Muntiacus truongsonensis*, was only discovered in 1997, and is currently known only from one other protected area in Vietnam. In 1999, an undescribed taxon of laughingthrush *Garrulax* was collected. This taxon is closely related to Rufous-throated Laughingthrush *G. rufogularis*, and may constitute a species new to science (Le Trong Trai *et al.* 2000).

Conservation issues

Parts of Kon Ka Kinh Nature Reserve were previously managed by forest enterprises: 2,343 ha by Dak Roong Forest Enterprise, 5,604 ha by Krong Pa Forest Enterprise and 8,614 ha by Mang Yang I Forest Enterprise. An area of 8,247 ha, equivalent to 20% of the nature reserve has been degraded by past commercial logging activities and continuing illegal timber extraction. A further 12,286 ha, or 29% of the nature reserve, has been cleared by commercial logging or shifting cultivation and now supports a range of secondary vegetation types (Le Trong Trai *et al.* 2000).

Although commercial logging activities in the nature reserve have now ceased, exploitation of certain forest resources is still occurring at unsustainable levels. Potentially the most harmful activities, from a

conservation perspective, are hunting and rattan collection. Timber extraction by local people is believed to occur at low levels; a more serious problem is illegal timber extraction by groups of loggers from other parts of Vietnam (Le Trong Trai *et al.* 2000).

Because of the low population density and large area of unused, fertile land, the buffer zone of Kon Ka Kinh Nature Reserve has been, and continues to be, a focus for spontaneous migration from other parts of Vietnam, particularly the northern provinces. For instance, in 1997 and 1998, a total of 413 migrants settled in Lo Ku commune, amounting to 17% of the current population of the commune. Spontaneous migration is one of the most serious conservation problems at Kon Ka Kinh, because, as the population of the buffer zone increases, so does pressure on forest resources (Le Trong Trai *et al.* 2000).

Kon Ka Kinh Nature Reserve is situated 12 km west of Kon Cha Rang Nature Reserve, to which it is linked by intervening forest areas. The two nature reserves, therefore, form an area large enough to support viable populations of large mammals, such as Tiger *Panthera tigris*, that neither area could support in isolation. However, the intervening forest areas are currently under forest enterprise management. In the nature reserve investment plan, BirdLife and FIPI strongly recommended that, in the future, these areas should be incorporated within the boundaries of the two nature reserves to form one contiguous protected area (Le Trong Trai *et al.* 1999). This recommendation is also contained within the *Tropical Forestry Action Plan* (MOF 1991), the *Biodiversity Action Plan for Vietnam* (Government of SRV/GEF 1994) and a recent review of the protected areas system in Vietnam published by BirdLife International and FIPI (Wege *et al.* 1999).

Other documented values

Kon Ka Kinh Nature Reserve has an important role in upstream watershed protection for several large rivers that provide water for irrigation and domestic use for a number of districts in Gia Lai and Kon Tum provinces. Additionally, the west of the nature reserve forms part of the catchment of the Yaly hydroelectric power station (Le Trong Trai *et al.* 2000).

The nature reserve is of importance to local people as a source of natural resources, such as firewood honey and rattans. Also, the nature reserve supports at least 110 plant species with known medicinal uses. Use of plants in traditional medicine is widespread amongst local people, although the commercial potential of these species remains largely unrealised (Le Trong Trai *et al.* 2000).

The nature reserve contains beautiful landscapes and other natural features of interest to visitors. However, the potential tourism value of Kon Ka Kinh must be considered low at the present time, because of the inaccessibility of the area and the lack of provision for tourism in the management regulations (Le Trong Trai *et al.* 2000).

Related projects

BirdLife and Gia Lai Provincial People's Committee are developing a Global Environment Facility (GEF) proposal for a conservation project at Kon Ka Kinh Nature Reserve. It is planned that project activities will commence in 2001.

The government-sponsored *Fixed Cultivation and Sedentarisation Programme*, funded by the Fund for Eliminating Famine and Reducing Poverty, is settling migrants from other areas of Vietnam in K'Bang district (Le Trong Trai *et al.* 2000).

Literature sources

Gia Lai Provincial FPD (2000) [FPD questionnaire]. Plei Ku: Gia Lai Provincial Forest Protection Department. In Vietnamese.

Ha Van Tue, Do Huu Thu and Le Hong Tan (1995) [The possibility of natural regeneration and its development in the land after cultivation in Kon Ha Nung]. Pp 156-162 in: Dang Huy Huynh, Nguyen Tien Ban, Vu Quang Con, Nguyen Thi Le, Pham Van Luc, Tran Dinh Ly, La Dinh Moi and Cao Van Sung eds. [Results of research by IEBR]. Hanoi: Institute of Ecology and Biological Resources. In Vietnamese.

Le Trong Trai, Le Van Cham, Tran Quang Ngoc and Tran Hieu Minh (2000) [[An investment plan for Kon Ka Kinh Nature Reserve, Gia Lai province: a contribution to the management plan](#)]. Hanoi: BirdLife

International Vietnam Programme and the Forest Inventory and Planning Institute. In Vietnamese.

Le Trong Trai, Le Van Cham, Tran Quang Ngoc and Tran Hieu Minh (2000) [[An investment plan for Kon Ka Kinh Nature Reserve, Gia Lai province: a contribution to the management plan](#)]. Hanoi: BirdLife International Vietnam Programme and the Forest Inventory and Planning Institute.

Tran Quang Ngoc (1999) [Biodiversity features of Kon Ka Kinh Nature Reserve, Gia Lai province]. Lam Nghiep [Vietnam Forest Review] September 1999: 22-24. In Vietnamese.

Vietnam News (2000) EC helps Vietnam establish three new nature reserves. Vietnam News 16 June 2000.