

Cuc Phuong National Park

Alternative site name(s)

None

Province(s)

Ninh Binh, Hoa Binh and Thanh Hoa

Area

22,200 ha

Coordinates

20°14' - 20°24'N, 105°29' - 105°44'E

Agro-ecological zone

Red River Delta

Decreed by government

Yes

Management board established

Yes

Investment plan prepared

Yes

VCF eligibility criteria met

A, B, C

Social screening criteria met

None

Conservation needs assessment prepared

No

Operational management plan prepared

No

Tracking tool completed

No

Map available

Yes

Management history

Cuc Phuong was the first protected area to be established in the Socialist Republic of Vietnam. Consequently, there are a large number of official documents relating to the site, of which this section only provides a selective review. Cuc Phuong was first decreed as a protected area by Decision 72/TTg of the Prime Minister, dated 7 July 1962. This decision decreed the establishment of a 25,000 ha protected forest (MARD 1997). Based upon this decision, the Directorate General of Forests issued Decision No. 18/QD-LN, dated 8 January 1966, which changed the status of Cuc Phuong Forest Enterprise to Cuc Phuong National Park, and established a national park management board. Because of difficulties encountered in implementing Decision No. 18/QD-LN, the Directorate General of Forests issued Decision No. 333/QD-LN, dated 23 May 1966, which clarified the responsibilities of the management board, one of which was to clearly delineate the national park boundary (Anon. 1991).

On 9 August 1986, national park status for Cuc Phuong was approved by the government, when the site was included on Decision No. 194/CT of the Chairman of the Council of Ministers, with an area of 25,000 ha (MARD 1997).

An investment plan for the national park was prepared by the Forest Inventory and Planning Institute in October 1985 (Anon. 1985). This was approved by Decision No. 139/CT of the Chairman of the Council of Ministers in May 1988 (Anon. 1991). In the investment plan, the national park boundary was redefined, and the total area was given as 22,200 ha, comprising 11,350 ha in present day Ninh Binh province, 5,850 ha in present day Hoa Binh province and 5,000 ha in present day Thanh Hoa province (Anon. 1985). Ten years later, in 1998, a second 10-year management plan was prepared for the period up to 2008.

Cuc Phuong is included on a list of Special-use Forests to be established by the year 2010, prepared by the FPD of MARD, as a 22,200 ha national park (FPD 2003); this list has not yet been approved by the government.

Topography and hydrology

Cuc Phuong National Park lies at the south-eastern extent of a limestone range that runs north-west to Son La province. This limestone range predominantly comprises karst, marine in origin and perhaps 200 million years old. The section of the limestone range encompassed by the national park rises sharply out of the surrounding plain, to elevations of up to 636 m. This section is around 10 km wide and 25 km long, and

has a central valley running along almost the entire length.

The karst topography exerts a dominant influence on drainage patterns in Cuc Phuong. Most of the water that the national park receives is quickly absorbed by a complex underground drainage system common to mature karst landscapes, often emerging from springs on the lower slopes flanking the national park. For this reason, there are no natural ponds or other standing bodies of water within the national park, and there is only one permanent watercourse, the Buoi river. This river bisects the western end of the national park from north to south, and feeds the Ma river, the major river in Thanh Hoa province.

Biodiversity values

The vegetation of Cuc Phuong National Park is dominated by limestone forest. In some places, the forest is stratified into as many as five layers, including an emergent layer up to 40 m in height. Due to the steep topography, however, the canopy is often broken and stratification is unclear. Many individual trees show well developed buttress roots in response to the generally shallow soils (Anon. 1991). The national park contains particularly large specimens of certain tree species, including *Terminalia myriocarpa*, *Shorea sinensis*, and *Tetrameles nudiflora* (Nguyen Nghia Thin 1997), which have been developed as tourist attractions. There is an abundance of timber trees and medicinal plants.

Cuc Phuong National Park has an extremely rich flora. To date, 1,980 vascular plant species in 887 genera and 221 families have been recorded at the national park. In terms of number of species, the best-represented families in the flora of Cuc Phuong are the Euphorbiaceae, Poaceae, Fabaceae, Rubiaceae, Asteraceae, Moraceae, Lauraceae, Cyperaceae, Orchidaceae and Acanthaceae (Davis *et al.* 1995). The flora of Cuc Phuong contains elements of the Sino-Himalayan, Indo-Burmese and Malesian floras (Nguyen Nghia Thin 1997). The high known floral diversity at Cuc Phuong can, however, be partly attributed to the high level of survey effort directed at the site.

Floral surveys have identified three vascular plant species known, to date, only from Cuc Phuong:

Pistacia cucphuongensis, *Melastoma trungii* and *Heritiera cucphuongensis* (Phung Ngoc Lan *et al.* 1996). Cuc Phuong National Park is also considered to be one of seven globally significant Centres of Plant Diversity in Vietnam (Davis *et al.* eds. 1995).

Cuc Phuong supports populations of several mammal species of conservation importance, including the globally critically endangered Delacour's Leaf Monkey *Trachypithecus delacouri* and the globally vulnerable Owston's Civet *Hemigalus owstoni* (CPCP 1999). In addition, the nationally threatened Leopard *Panthera pardus* has been recently recorded at the national park (Lao Dong [Labour] 2000). Furthermore, over 40 bat species have been recorded at the national park (N. Furey *in litt.* 2004), including 17 species from a single cave. Unfortunately, several large mammal species, including Tiger *Panthera tigris* and White-cheeked Crested Gibbon *Hylobates leucogenys*, are believed to have become extinct at Cuc Phuong in recent times, mainly due to high hunting pressure and the relatively small size of the national park.

To date, 313 species of bird have been recorded at Cuc Phuong National Park (C. Robson *in litt.* 2002). Cuc Phuong is situated at the northern end of the Annamese Lowlands Endemic Bird Area (EBA) (Stattersfield *et al.* 1998). However, only one of the restricted-range bird species characteristic of this EBA, Short-tailed Scimitar Babbler *Jabouilleia danjoui*, has been recorded at the national park (Robson 1995). Cuc Phuong qualifies as an Important Bird Area (Tordoff 2002).

Other taxa that have been studied at Cuc Phuong include snails, 111 species of which were recorded during a recent survey, including 27 species endemic to the national park and its immediate surroundings (Vermeulen and Whitten 1998). Subterranean cave-dwelling fish have also been studied, and at least one species recorded at Cuc Phuong is thought to be endemic to the limestone range: Cuc Phuong Cat Fish *Pterocryptis* (= *Parasilurus*) *cucphuongensis*; this species has subsequently been recorded at Pu Luong proposed nature reserve (Mai Dinh Yen *et al.* 2003). There are currently 280 butterfly species known from the national park, seven of which were new records for Vietnam when they were first identified in 1998 (Hill *et al.* 1999).

Conservation issues

When Cuc Phuong National Park was established in the 1960s, several communities lived inside the boundary. On 6 October 1986, Decision No. 251/CT of the Chairman of the Council of Ministers ordered the relocation of these communities to areas outside of the national park. During the first phase of relocation, which was completed by the end of 1990, six hamlets with 650 people were relocated from the central valley of the national park and two villages were relocated from the Buoi river valley. However, there are still 2,000 people living inside the national park, along the Buoi river. These people have also been slated for relocation.

The buffer zone of the national park is home to around 50,000 people, many of whom depend upon the natural resources of the national park (CPCP 1999). The most widely exploited forest products are timber and fuelwood. The collection of snails, mushrooms, tubers and bamboo shoots for food is common, as is the collection of banana stems for animal fodder (Dinh Trong Thu and Tran Hong Thu 1998). Hunting, both for subsistence and commercial purposes, takes place at unsustainable levels, and threatens to eradicate a number of mammal, bird and reptile species from the national park. Forest on the fringes of the national park is being heavily degraded by fuelwood collection and livestock grazing, and is being cleared for agriculture in places.

The large number of tourists who visit Cuc Phuong each year pose particular problems for the management of the national park. Waste disposal, collection of plants, and excessive noise created by large tour groups are all problems that the national park staff have yet to effectively control. More significantly, the management agenda of the national park is heavily focused on tourism development, at the expense of biodiversity conservation. This has resulted in the development of tourism infrastructure with negative environmental impacts. For example, upgrading the road through the central valley of the national park has increased disturbance. Similarly, construction of artificial lakes inside the national park has resulted in forest clearance and altered local hydrology.

Currently, one of the biggest threats to biodiversity at Cuc Phuong National Park is the construction of the

Ho Chi Minh National Highway along the Buoi river valley, which bisects the national park. Apart from the direct impacts of construction, this road facilitates access to the forest and, hence, forest product extraction, and may, in the future, act as a focus for human settlement.

Other documented values

Cuc Phuong National Park is a popular tourist destination, and receives large numbers of visitors each year, mostly domestic tourists. Due to the large number of visitors, Cuc Phuong has high potential value for raising awareness of environmental issues among the general public. This potential has already been partly realised by, for example, the construction of a visitor centre at the national park, which opened in mid 2000.

Cuc Phuong National Park is an important site for biological research and for training scientists: many undergraduate and graduate students visit the national park on field courses. There is also a training centre at the national park for FPD staff.

Cuc Phuong has historical value as an archaeological site. Prehistoric human remains, up to 12,000 years old, have been found in caves in the national park. In addition, a fossilised marine reptile was recently found in the national park; this is the first discovery of its kind in Vietnam.

The forest at Cuc Phuong provides several essential hydrological services to local communities. For instance, the forest protects the watershed of the Yen Quang reservoir, which provides water for domestic and agricultural use.

Related projects

Frankfurt Zoological Society have established an Endangered Primate Rescue Centre (EPRC) at Cuc Phuong National Park, in order to conduct captive breeding and veterinary research on Vietnamese gibbons, lorises and leaf monkeys. The EPRC receives animals confiscated from illegal wildlife traders by government authorities (EPRC 1997).

Cuc Phuong National Park is also the location of the *Owston's Civet Breeding and Ecology Project* and the *Turtle Ecology and Conservation Programme*, two

initiatives to study and establish captive breeding populations of globally threatened animal species threatened by wildlife trade.

With funding from BP and Statoil, the *Cuc Phuong Conservation Project (CPCP)* was implemented at Cuc Phuong by Fauna & Flora International between 1996 and 2002. The CPCP had five focal areas: (i) socio-economic research to develop a better understanding of use of natural resources by local communities; (ii) a conservation awareness programme to enhance both local people's and visitor's understanding of nature and of the need to protect the national park; (iii) biological research to establish baseline information about Cuc Phuong's biodiversity that enables effective monitoring; (iv) institutional capacity building to develop strong professional skills among national park staff; and (v) species conservation programmes to conserve wildlife threatened by trade.

In collaboration with government partners, the FFI Vietnam Programme is currently implementing a medium-sized World Bank/GEF project entitled the *Pu Luong-Cuc Phuong Limestone Landscape Conservation Project*. The objectives of this project are to protect the Pu Luong-Cuc Phuong limestone range and its wildlife through the establishment of a new protected area, strengthening the existing protected areas system and building the capacity of relevant stakeholders; to improve the conservation status of Delacour's Leaf Monkey; and to generate public support for karst conservation. The project, which will be implemented for three years from 2002, will include a variety of capacity building activities at Cuc Phuong National Park.

Conservation needs assessment

A conservation needs assessment has not been conducted for the site.

Operational management plan

An operational management plan has not been prepared for the site.

Eligibility against VCF criteria

Cuc Phuong meets eligibility criteria A, B and C. However, as a centrally managed Special-use Forest, it will only be eligible for VCF support if the Investment Plan and Operational Management Plan demonstrate a high proportion of government support directed towards conservation activities.

Criterion	Eligibility
A _I	NA1 - Northern Indochina Limestone
A _{II}	VN034 - Cuc Phuong
B _I	Decision No. 72/TTg, dated 07/07/62
B _{II}	National Park
B _{III}	Under central management
C _I	Management board established
C _{II}	

Social screening requirements

A social screening report has not been prepared for the site.

Criterion	Eligibility
A	
B	
C	
D	

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