

Huu Lien Nature Reserve

Alternative site name(s)

Huu Lien-Yen Thinh

Province(s)

Lang Son

Area

10,640 ha

Coordinates

21°37' - 21°45'N, 106°19' - 106°26'E

Agro-ecological zone

North-eastern

Decreed by government

Yes

Management board established

Yes

Investment plan prepared

Yes

VCF eligibility criteria met

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

Huu Lien was included on Decision No. 194/CT of the Chairman of the Council of Ministers, dated 9 August 1986 (MARD 1997), which decreed the establishment of a 3,000 ha nature reserve for the conservation of limestone forest and musk deer (Cao Van Sung 1995). A nature reserve management board was established in 1989, following Decision No. 10/QD-KL of Lang Son Provincial People's Committee, dated 10 June 1989. The management board currently has 11 members of staff (Lang Son Provincial FPD *in litt.* 2003). An investment plan for Huu Lien Nature Reserve was prepared in 1990 (Anon. 1990), which gave the area of the nature reserve as 10,640 ha. The investment plan was approved by the former Ministry of Forestry in 1992 (FPD 1998). The site is managed at the provincial level.

Huu Lien Nature Reserve is included on a list of Special-use Forests to be established by the year 2010, prepared by the FPD of MARD, as a 10,640 ha nature reserve (FPD 2003); this list has not yet been approved by the government. Lang Son Provincial FPD (*in litt.* 2003).

Topography and hydrology

Huu Lien Nature Reserve lies about 90 km due north of Hanoi, and includes all of Huu Lien commune

and a part of Yen Thinh commune, Huu Lung district, Lang Son province. The landscape of the nature reserve is dominated by limestone karst. According to the investment plan (Anon. 1990), 9,734 ha or 91% of the nature reserve is limestone karst, of which 9,082 ha, or 93% of the total, is forested. The limestone karst is bisected by two flat valleys in the centre of the nature reserve, which run in a north-south direction. These valleys are at an elevation of around 100 m, while the highest point in the nature reserve is the summit of Mount Kheng at 638 m.

The nature reserve is drained by two main streams, the Buc and An. There are also four lakes: Giang Ca lake (125 ha), Deo Long lake (60 ha), Lan Dat lake (30 ha) and Lan Ty lake (19 ha).

Biodiversity values

The natural vegetation at Huu Lien Nature Reserve is limestone forest. A total of 794 species of vascular plant in 162 families have been recorded at Huu Lien, including 31 species in the *Red Data Book of Vietnam*, such as *Cupressus torulosa*, *Burretiodendron tonkinensis* and *Garcinia fagraeoides* (Nguyen Xuan Dang *et al.* 1999).

During 1998, the fauna of Huu Lien Nature Reserve was studied by Nguyen Xuan Dang *et al.* (1999), who recorded 57 mammal, 23 reptile and 14 amphibian species, 29 of which are listed in the *Red*

Data Book of Vietnam (Anon. 1992). Based on the identification of specimens, Nguyen Xuan Dang *et al.* (1999) recorded the occurrence of Forest Musk Deer *Moschus berezovskii*. Dang Ngoc Can and Nguyen Xuan Dang (1999a) estimate that the population of Forest Musk Deer at Huu Lien Nature Reserve numbers 83 individuals.

Nguyen Xuan Dang *et al.* (1999) also recorded Francois' Leaf Monkey *Trachypithecus francoisi* and Black-cheeked Crested Gibbon *Hylobates concolor* at the nature reserve. However, these records were based upon interview data, and, given the high levels of hunting and the disturbed nature of the forest, it is highly unlikely that the nature reserve supports a significant population of either of these species (T. Osborn verbally 2000).

Conservation issues

The population of Huu Lien commune, which is situated inside the nature reserve, is 2,658 people, comprising members of the Kinh, Tay, Nung and Dao ethnic groups (Dang Ngoc Can and Nguyen Xuan Dang 1999b). The inhabitants of the nature reserve have a high level of dependence on forest resources, which they use for construction materials, food and medicine. Le Xuan Canh and Do Anh Dung (2000) note that pressure on wildlife populations from hunting and wildlife trading is very high in Lang Son province. Of particular concern, is the effect of hunting on the population of Forest Musk Deer at Huu Lien. Dang Ngoc Can and Nguyen Xuan Dang (1999a) noted that, in 1997, 14 Forest Musk Deer were hunted in Huu Lien Nature Reserve, while, in the first nine months of 1999, 10 individuals were hunted. Clearly, with an estimated population of under 100 individuals, this level of hunting cannot be sustainable.

Other documented values

Huu Lien Nature Reserve supports numerous economically valuable plant species. *Burretiodendron tonkinensis*, for example, is used for house construction and the manufacture of chopping boards for export to China. *Cupressus torulosa*, which is used for essential oil extraction, sells for about VND 20,000 per kilogramme.

Related projects

During 1998, the Department of Zoology of the Institute of Ecology and Biological Resources (IEBR) implemented a research project on the fauna of Huu Lien Nature Reserve, with funding from the Vietnamese government.

During 1999, the Department of Zoology of IEBR implemented a research project on the conservation and captive breeding of Forest Musk Deer and other threatened animal species at Huu Lien Nature Reserve, with funding from the Vietnamese government.

During 2000, Frontier-Vietnam and IEBR conducted a biodiversity survey of Huu Lien Nature Reserve, focussed on vegetation, birds, lepidopterans and amphibians (Furey *et al.* 2002).

The national 661 Programme is currently supporting forestry activities at Huu Lien Nature Reserve.

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

Huu Lien is ineligible for VCF support because it does not meet the criteria for supporting forest biodiversity of international importance.

Criterion	Eligibility
A _I	
A _{II}	
B _I	Decision No. 194/CT, dated 09/08/86
B _{II}	Nature Reserve
B _{III}	Under provincial 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	

Literature sources

Anon. (1990) [Investment plan for Huu Lien Nature Reserve, Huu Lung district, Lang Son province]. Lang Son: Lang Son Provincial People's Committee. In Vietnamese.

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