

Ngoc Son Proposed Nature Reserve

Alternative site name(s)

Ngoc Son-Tu Do

Province(s)

Hoa Binh

Area

10,000 ha

Coordinates

20°31' - 20°30'N, 105°15' - 105°29'E

Agro-ecological zone

North-western

Decreed by government

No

Management board established

No

Investment plan prepared

No

VCF eligibility criteria met

A, B

Social screening criteria met

None

Conservation needs assessment prepared

No

Operational management plan prepared

No

Tracking tool completed

No

Map available

Yes

Management history

Ngoc Son is not included on any government decision regarding the national Special-use Forests network, nor is it included on a list of Special-use Forests to be established by the year 2010, prepared by the FPD of MARD (MARD 1997, FPD 2003). However, a proposal to establish a 10,000 ha nature reserve at Ngoc Son was made by Hoa Binh Provincial People's Committee in 1996 (MARD 1997). Although, to date, an investment plan has not been prepared and a management board has not been established, an investment plan for the site will be prepared as part of the on-going *Pu Luong-Cuc Phuong Limestone Landscape Conservation Project*.

Topography and hydrology

Ngoc Son proposed nature reserve is situated in Ngoc Son and Tu Do communes, Lac Son district, Hoa Binh province. The proposed nature reserve lies on the north-eastern flank of the limestone range that extends in a north-westerly direction from Cuc Phuong National Park to Son La province. The geology of the proposed nature reserve is characterised by limestone karst, and the topography is steep and rugged. Within the karst, there are a few flat-bottomed valleys, which run from north-west to south-east.

The precise boundaries of Ngoc Son proposed nature reserve have yet to be defined. However,

elevations in the area range from under 100 to 1,065 m, and the average elevation of the top of the limestone karst is about 600 m. The hydrology of the area is complex. The area is drained by a tributary of the Buoi river, which feeds the Ma river, which, in turn, reaches the sea near Thanh Hoa city.

Biodiversity values

In the absence of detailed biological surveys of the site, little information exists about the biodiversity values of Ngoc Son. Satellite data from 1995 indicate that the proposed nature reserve is still largely covered by limestone forest, presumably due to the inaccessibility of the area and the unsuitability of the limestone karst for agriculture. It would appear, however, that the flat valley bottoms have been settled by people, and that forest in these areas has been cleared for cultivation.

Given the proximity of Ngoc Son proposed nature reserve to Cuc Phuong National Park and Pu Luong proposed nature reserve, it can be expected that the flora and fauna of Ngoc Son will have strong similarities with those of the other two sites.

Ngoc Son is known to support the globally critically endangered and endemic primate, Delacour's Leaf Monkey *Trachypithecus delacouri* (Luong Van Hao 1999). This species has also been recorded in several contiguous areas of similar habitat: Pu Luong proposed nature reserve to the west (Baker 1999), Ba

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Thuoc district to the south (Ngo Van Tri 1999) and Cuc Phuong National Park to the south-east (Ratajszczak 1988). The population at Ngoc Son, may, therefore, be of high significance for landscape-level initiatives to conserve this species.

Ngoc Son is an important link in a chain of near-contiguous decreed and proposed protected areas, which stretches from Cuc Phuong National Park to the Laotian border. Providing that intervening areas of forest can be protected, and habitat corridors re-established in areas where forest has been cleared, the area has the potential to be one of the most intact natural landscapes in Vietnam.

Conservation issues

Hoa Binh Provincial FPD (*in litt.* 2000) consider timber extraction and collection of non-timber forest products to be the main threats to biodiversity within the proposed nature reserve. In the buffer zone, they identify clearance of forest for shifting cultivation and forest fire as additional threats. At least some of the timber extracted from the proposed nature reserve is used locally for house construction. Quarrying of limestone is another threat to biodiversity at Ngoc Son (O. Maxwell *in litt.* 2000).

Other documented values

No information.

Related projects

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. Ngoc Son is a geographical focus of this project, which will be implemented for three years from 2002.

A series of complementary activities to the medium-sized World Bank/GEF project are currently being implemented in the Ngoc Son area under the Spanish Agency for International Cooperation-funded *Pu Luong-Cuc Phuong Community Management and Eco-tourism Development Project*, currently being implemented by FUNDESO, in partnership with FFI and FPD. The objectives of this project are to reduce poverty and contribute to socio-economic development compatible with forest and biodiversity conservation in selected communes of the Ngoc Son area. The project is being implemented for two years from 2002.

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

Ngoc Son is currently ineligible for VCF support because it is not under appropriate conservation management.

Criterion	Eligibility
A _I	NA1 - Northern Indochina Limestone
A _{II}	
B _I	Proposed Special-use Forest
B _{II}	Nature Reserve
B _{III}	Under provincial management
C _I	
C _{II}	

Social screening requirements

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

Criterion	Eligibility
A	
B	
C	
D	

Literature sources

Baker, L. R. (1999) Survey of the Delacour's Langur for the Frankfurt Zoological Society and the Endangered Primate Rescue Centre. Unpublished report to the Frankfurt Zoological Society and the Endangered Primate Rescue Centre.

Luong Van Hao (1999) [Survey of the distribution of Delacour's Langur in Hoa Binh province, June 1999]. Unpublished report to the Endangered Primate Rescue Centre. In Vietnamese.

Ngo Van Tri (1999) Preliminary assessment on the mammal in Tuong limestone mountain complex, Ba Thuoc district, Thanh Hoa province. Unpublished report to Fauna and Flora International-Indochina Programme.

Ratajszczak, R. (1988) Notes on the current status and conservation of primates in Vietnam. *Primate Conservation* 9: 134-136.