

# Na Hang Proposed Nature Reserve

**Alternative site name(s)**

Tat Ke-Ban Bung

**Province(s)**

Tuyen Quang

**Area**

41,930 ha

**Coordinates**

22°16' - 22°31'N, 105°22' - 105°29'E

**Agro-ecological zone**

North-eastern

**Decreed by government**

No

**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**

Yes - 2003

**Tracking tool completed**

No

**Map available**

Yes

## Management history

In 1992, a population of the globally critically endangered Tonkin Snub-nosed Monkey *Rhinopithecus avunculus* was found in Na Hang district; this endemic species was previously thought to be globally extinct (Boonratana 1998). As a result of this discovery, a feasibility study for the establishment of a nature reserve at Na Hang was carried out in April 1994, by the National Wildlife Federation/IUCN/WWF Programme for Endangered Species in Asia, in collaboration with the former Ministry of Forestry and the Institute of Ecology and Biological Resources (Cox 1994). This feasibility study proposed establishing a 21,725 ha nature reserve, comprising two sectors: Tat Ke in the north, with an area of 9,975 ha, and Ban Bung in the south, with an area of 11,750 ha.

It would appear that, prior to the publication of the feasibility study, an investment plan had already been prepared. This investment plan, which was published in October 1993, proposed establishing a 41,930 ha nature reserve, comprising a strict protection area of 27,520 ha, a forest rehabilitation area of 12,910 ha, and an administration and services area of 1,500 ha. The strict protection area comprises two sub-areas: Tat Ke, with an area of 12,500 ha, and Ban Bung, with an area of 15,000 ha (Anon. 1993). Until recently, however, it was not clear whether the forest rehabilitation and administration and services areas formed part of the core zone or part of the buffer zone. Division of the

proposed nature reserve into core and buffer zones was not, in fact, finalised until extensive resource-use planning and internal boundary demarcation was undertaken by the *Creating Protected Areas for Resource Conservation Using Landscape Ecology (PARC)* Project in 2003 and 2004 (F. Potess *in litt.* 2004).

The investment plan was approved by the former Ministry of Forestry on 16 April 1994, following Decision No. 849/KH, and by Tuyen Quang Provincial People's Committee on 9 May 1994, by Decision 274/UB-QD (Anon. 1993). Subsequently a management board was established for the nature reserve.

The site is not included on any government decision regarding the national protected areas system. However, the site is included on a list of Special-use Forests to be established by the year 2010, prepared by the FPD of MARD, as a 41,930 ha nature reserve (FPD 2003); this list has not yet been approved by the government. In addition, through the efforts of the PARC Project, proposals are in place for the extension of protected area coverage to the north-west of the Tat Ke sector and to the south-east of the Ban Bung sector. The north-western extensions would protect threatened populations of Francois's Leaf Monkey, while the south-eastern extension would protect habitats suitable for Tonkin Snub-nosed Monkey (F. Potess *in litt.* 2004).

# Na Hang Proposed Nature Reserve

## Topography and hydrology

The topography of both the Tat Ke and Ban Bung sectors is characterised by steep, rugged limestone hills, with recent alluvial deposits occupying river valleys. There are significant karst formations in both sectors, many of which contain extensive cave systems. Most areas of the proposed nature reserve are between 300 and 800 m in elevation. The highest peak in the Tat Ke sector is Loung Nioung, at 1,067 m, while that in the Ban Bung sector is Nui Pia Cao at 980 m.

There are two main river systems in the area. The Nang river flows south through the Tat Ke sector and then joins the Gam river. The Gam river forms the western boundaries of both sectors before flowing south to meet the Lo river, which, in turn, meets the Red River at Viet Tri town.

## Biodiversity values

According to Cox (1994), approximately 68% of Na Hang proposed nature reserve supports tropical moist forest formations, which are either in a pristine condition or have been slightly modified by the activities of the local human population. About 70% of the natural vegetation cover of the proposed nature reserve is limestone forest, although smaller areas of various lowland evergreen and lower montane evergreen forest sub-types also occur. Over 2,000 plant species have been identified at the proposed nature reserve (McNab *et al.* 2000), including several species listed in the *Red Data Book of Vietnam* (Anon. 1996), such as *Garcinia fragraeoides*, *Diospyrus mollis*, *Manglieta fordiana* and *Markhamia stipulata* (Hill and Hallam 1997).

Na Hang is of particular importance for the conservation of globally threatened primate species. The proposed nature reserve is one of only a handful of sites in the world known to support Tonkin Snub-nosed Monkey, and may support the largest population. Recent estimates of the size of the population at Na Hang vary from at least 111 (Dang Ngoc Can and Nguyen Truong Son 1999) to up to 191 individuals (Le Hong Binh, quoted in Dang Ngoc Can and Nguyen Truong Son 1999). However, the population at Na Hang is split into two sub-populations, one in each sector. In addition to Tonkin Snub-nosed Monkey, the

globally vulnerable Francois's Leaf Monkey *Trachypitecus francoisi* also occurs at Na Hang proposed nature reserve (Boonratana 1998).

A number of ornithological surveys have been conducted at Na Hang proposed nature reserve (e.g. Hill 2000). A number of bird species recorded at the proposed nature reserve are known from few other sites in Vietnam, including many biome-restricted species and the globally vulnerable Wood Snipe *Gallinago nemoricola* (J. Eames verbally 2003). Because of its importance for biome-restricted species, the Ban Bung sector qualifies as an Important Bird Area (Tordoff 2002).

## Conservation issues

One source of threat to biodiversity at Na Hang is people living within and immediately adjacent to the proposed nature reserve. Shifting cultivation practices and over-exploitation of forest products both pose long-term threats to the forest habitats. However, a more acute threat to the populations of Tonkin Snub-nosed Monkey and other globally threatened mammal species at the site is hunting. In northern Vietnam, the bones, hands and feet of Tonkin Snub-nosed Monkey are often made into traditional medicine (Dang Ngoc Can and Nguyen Truong Son 1999).

Another major threat to biodiversity at Na Hang is infrastructure development, particularly the on-going construction of a hydro-electric dam on the Gam river and associated access roads. This project will inundate about 220 ha of the proposed nature reserve, with severe negative implications for the conservation of Tonkin Snub-nosed Monkey and other globally threatened species. In addition, the arrival of construction workers has dramatically swelled the population of Na Hang town, which lies between the two sectors of the proposed nature reserve, leading to increased pressure on natural resources. PARC-Project-led "preliminary" and "supplementary" environmental impact assessments, carried out in 2000 and 2002 respectively, concluded that habitat loss, and, more significantly, increased disturbance, could endanger the small populations of Tonkin Snub-nosed Monkey and Francois's Leaf Monkey that remain at Na Hang (McNab 2000, F. Potess *in litt.* 2004).

# Na Hang Proposed Nature Reserve

## Other documented values

Most of the forest at Na Hang is distributed on hill slopes, and the montane soils in these areas are highly susceptible to erosion. In some places within the proposed nature reserve, forest loss has led to landslides and gullying (Cox 1994). Forest at Na Hang proposed nature reserve, therefore, plays a valuable role in preventing soil erosion and protecting the water supplies of downstream communities.

## Related projects

The largest conservation project being implemented at the site is the PARC Project. The project document (VIE/95/G31) was signed on 20 November 1998, and project implementation began in mid 1999. The main source of funding for the project is the Global Environment Facility, with counterpart funding from UNDP and the government of Vietnam. Na Hang is one of the three main sites that the project is working at; the others are Yok Don and Ba Be National Parks. The project is employing a landscape ecology approach to conservation.

In addition to the PARC project, the *Tonkin Snub-nosed Monkey Conservation Project* is currently being implemented at Na Hang proposed nature reserve by Allwetter Zoo and the Zoological Society for the Conservation of Species and Populations (both of Germany). This project, which began in December 1997, aims to protect and restore the forest at Na Hang and its animal populations, particularly Tonkin Snub-nosed Monkey (Allwetter Zoo and ZSCSP 2000).

## Conservation needs assessment

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

## Operational management plan

An operational management plan was prepared for Na Hang proposed nature reserve in 2003, with the support of the PARC Project.

## Eligibility against VCF criteria

Na Hang is eligible for VCF support because it meets criteria A, B and C.

Criterion	Eligibility
A <sub>I</sub>	NH2 - Northern Highlands Limestone
A <sub>II</sub>	VN027 - Ban Bung
B <sub>I</sub>	Proposed Special-use Forest
B <sub>II</sub>	Nature Reserve
B <sub>III</sub>	Under provincial management
C <sub>I</sub>	Management board established
C <sub>II</sub>	

## Social screening requirements

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

Criterion	Eligibility
A	
B	
C	
D	

## Literature sources

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