Na Hang Proposed Nature Reserve

Alternative site name(s)
Tat Ke-Ban Bung
Province(s)
Tuyen Quang
Status
Proposed
Management board established
Yes
Latitude
$22^0$16' - $22^0$31'N
Longitude
$105^0$22' - $105^0$29'E
Bio-unit
06a - Tropical South China

Conservation status

In 1992, a population of the globally critically endangered Tonkin Snub-nosed Monkey *Pygathrix 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 (IEBR) (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.

However, 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). However, it is not clear whether the forest rehabilitation and administration and services areas form part of the nature reserve or part of the buffer zone. Some sources, for example the investment plan (Anon. 1993), include these areas inside the nature reserve, while other sources, for example UNDP (1995), designated these areas as a 14,410 ha buffer zone and give the area of the nature reserve as only 27,520 ha. Boonratana (1998) considers the UNDP (1995) document to be more correct in limiting the nature reserve to the Tat Ke and Ban Bung sectors.

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 decree. However, the site is included on the 2010 list, as a 41,930 ha nature reserve, under the name Tat Ke-Ban Bung (FPD 1998).

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 situated at between 300 and 800 m in elevation. The highest peak in the Ta 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 value

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, such as *Garcinia fragraeoides*, *Diospyrus mollis*, *Manglieta fordiana* and *Markhamia stipulata* (Hill and Hallam 1997).

The fauna of the proposed nature reserve is incompletely known, although the 90 mammal, 247 bird, 61 reptile and 20 amphibian species recorded to date aptly demonstrate its biological diversity (Boonratana 1998). The mammals include 13 species listed in the Red Data Book of Vietnam. However, Boonratana (1998) considers it doubtful that one of these species, Black Gibbon *Hylobates concolor* ever occurred at the proposed nature reserve.

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 Vietnam 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' Leaf Monkey *Semnopithecus francoisi francoisi* also occurs at Na Hang proposed nature reserve (Boonratana 1998).

Conservation issues

The main threat to Na Hang comes from the people living in 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).

A proposed national-level project to construct a hydro-electric dam on the Gam river threatens to inundate 220 ha of Na Hang nature reserve, with severe negative implications for the conservation of Tonkin Snub-nosed Monkey and other globally threatened species. In 2000, a preliminary environmental impact assessment carried out by Scott Wilson Asia-Pacific Ltd concluded that habitat loss, and, more significantly, increased disturbance, could endanger the small remaining populations of Tonkin Snub-nosed Monkey and Francois' Leaf Monkey (McNab 2000).

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 *Creating Protected Areas for Resource Conservation Using Landscape Ecology (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 (GEF). Na Hang is only one of three sites that the project is working at; the others are Yok Don and Ba Be National Parks. At Na Hang and Ba Be, the implementing sub-contractor is Scott Wilson Asia-Pacific Ltd. The project aims to employ a landscape ecology approach to conservation.

In addition to the PARC project, the *Tonkin Snub-nosed Monkey Conservation Project (TCP)* 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).

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