Ba Be National Park

Alternative site name(s)
Pia Bioc, Phia Booc
Province(s)
Bac Kan
Area
7,610 ha
Coordinates
$22^0$21' - $22^0$29'N, $105^0$34' - $105^0$42'E
Agro-ecological zone
North-eastern
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
None
Operational management plan prepared
Yes - 2003
Tracking tool completed
No
Map available
Yes

Management history

Ba Be was decreed as a 5,000 ha cultural and historical site on 24 January 1977, following Decision No. 41/TTg of the Prime Minister. The status of the site was reiterated by Decision No. 194/CT of the Chairman of the Council of Ministers, dated 9 August 1986, which assigned the then Ministry of Forestry and other relevant authorities to carry out surveys and prepare an investment plan for the site (Anon. 1995).

An investment plan for Ba Be National Park was prepared by the Forest Inventory and Planning Institute in 1992. This investment plan was approved by government Decision No. 83/TTg, dated 10 November 1992, thereby formally establishing the national park. The area given in the investment plan was 7,610 ha, comprising a strict protection area of 3,226 ha, a forest regeneration area of 4,084 ha, and 300 ha of lake surface. A management board was established by Cao Bang Provincial People's Committee on 10 November 1992 but was not ratified by MARD until 1997 (Anon 2000). The management board currently has 65 members of staff based at the headquarters and four guard stations (Bac Kan Provincial FPD *in litt.* 2000).

The *Biodiversity Action Plan for Vietnam* (Government of SRV/GEF 1994) included a proposal to extend the national park to 50,000 ha. In 1995, an investment plan was prepared, which proposed extending the national park to 23,340 ha (Cao Bang Provincial People's Committee 1995), although this has yet to be approved by MARD.

Subsequent to the establishment of the national park, the border between Cao Bang and Bac Kan provinces was re-aligned. Consequently, the national park now lies entirely within Bac Kan province.

Prior to 2002, Ba Be National Park was under the direct management of MARD. However, on 17 April 2002, management responsibility for the national park was transferred from MARD to Bac Kan Provincial People's Committee, following Decision No. 51/TTg of the Prime Minister.

Ba Be is included on a list of Special-use Forests to be established by the year 2010, prepared by the FPD of MARD, as a 7,610 ha national park (FPD 2003); this list has not yet been approved by the government.

On 17 and 18 December 2003, the environment ministers of the ASEAN nations amended the ASEAN Declaration on Heritage Parks and included four ASEAN Heritage Parks in Vietnam, including Ba Be National Park.

Topography and hydrology

Ba Be National Park is centred on Ba Be lake. The name Ba Be means "three lakes", although the lake is one continuous water body, 8 km long and up to 800 m wide. At an altitude of 178 m, Ba Be is the "only significant natural mountain lake in Vietnam" (Scott

1989). It is up to 29 m deep, and contains numerous small limestone islets.

The site ranges in altitude from 150 to 1,098 m. The geology of the area is predominantly limestone, with numerous rugged peaks and deep, steep-sided river valleys. The limestone karst landscape contains many caves, the largest being the 300 metre-long Phuong cave, through which the Nang river passes.

Ba Be lake is fed by the Ta Han, Nam Cuong and Cho Leng rivers, which form the above-ground hydrological system in the southern part of the national park. The lake drains into the Nang river, which flows through the north of the park. The Nang river then flows southwards, eventually meeting the Lo river in southern Tuyen Quang province, before joining the Red River west of Hanoi.

Biodiversity values

The forest at Ba Be can be classified into two main types: limestone forest and lowland evergreen forest. The limestone forest is distributed on steep limestone slopes with shallow soil, and covers a large proportion of the national park. This forest type is dominated by *Burretiodendron hsienmu* and *Streblus tonkinensis*. Lowland evergreen forest is distributed on shallow slopes with deeper soils. This forest type has a higher tree species diversity than limestone forest and has a richer ground flora (Hill *et al.* 1997). Levels of disturbance are generally high, and selective logging and clearance for agriculture are commonplace. Consequently, much of the forest in the national park is disturbed and few areas of undisturbed forest remain (Hill *et al.* 1997).

With regard to mammals, the site is of particular interest for the presence of the globally vulnerable Owston's Civet *Hemigalus owstoni* and Francois's Leaf Monkey *Trachypithecus francoisi*, although it appears that only one group of 7 to 13 Francois's Leaf Monkeys remains (A. Grieser Johns and F. Potess *in litt.* 2004).

It is highly unlikely, however, that the globally critically endangered Tonkin Snub-nosed Monkey *Rhinopithecus avunculus* continues to occur within the core zone of Ba Be National Park. Information from Ba Be National Park staff suggests that the species may have occurred in the north-west of the national park as recently as 1997 (N. Lormée verbally 2000). However, surveys by BirdLife International and Fauna & Flora International on behalf of the *Creating Protected Areas for Resource Conservation Using Landscape Ecology* (*PARC*) Project, in 2002 and 2003, provided no evidence in support of the supposition that the species remains at Ba Be (A. Grieser Johns and F. Potess *in litt.* 2004).

Ba Be is unique amongst Vietnamese protected areas for the diversity of freshwater habitats. This is reflected to some extent in the diversity of fish species found at the site. Although recent surveys by the PARC Project have documented the existence of several endemic fish species, more work needs to be conducted in this area.

Ba Be also supports a high butterfly species richness. During surveys in 1997 and 1998, a total of 332 species were recorded at the national park, of which 22 were new records for Vietnam (Monastyrskii *et al.* 1998).

Conservation issues

In 2000, close to 3,000 people from the Tay, Dao, Hmong and Kinh ethnic groups lived inside Ba Be National Park (Bac Kan Provincial FPD *in litt.* 2000). During recent years, however, several Hmong and Dao villages have been subjected to relocation from within the national park (F. Potess *in litt.* 2004). The main economic activity of local communities is rice cultivation, although, because of the shortage of suitable land, they also engage in hunting and collection of forest products. Communities in the buffer zone of the national park also exploit forest resources, especially the inhabitants of villages that lie along the main access road into the centre of the national park (Nong The Dien, Vice-director of Ba Be National Park verbally 2000).

Raintree *et al.* (1999) identified the main threats to biodiversity from households in the buffer zone as: illegal timber and firewood collection for domestic use; illegal harvesting of other NTFPs; hunting; continued occupation of agricultural land within the national park; grazing of cattle within the national park; pollution of lake waters due to dynamite and poison fishing techniques; and sedimentation of the lake due to agricultural practices in the catchments of the three rivers that feed it. However, dynamite and poison fishing have been pretty much eradicated, through the

efforts of the PARC Project and the newly established Ba Be Lake Management Cooperative (F. Potess *in litt.* 2004).

Other threats to biodiversity at Ba Be National Park include infrastructure development and unsustainable tourism development. A road has recently been constructed around the southern shore of Ba Be lake, increasing disturbance and facilitating access to natural resources within the national park. In addition, the construction of another road is proposed, following the Nang river, through the north of the national park (A. Grieser Johns *in litt.* 2004). Moreover, Raintree *et al.* (1999) report that tourist boats are a source of solid waste and fuel pollution to Ba Be lake.

Other documented values

Ba Be lake is a popular tourist destination. A total of 8,733 visitors stayed at national park accommodation in 2003, 10% of whom were international visitors (F. Potess *in litt.* 2004). Together with the river network, the lake is also an important means of communication for local communities, and the roadheads on its eastern and western shores are linked by ferry. However, the construction of the new road around the lake has minimised the need for a ferry. The lake is also an important source of fish for local communities, and plays an important role in the regulation of flooding of the Nang river. Ba Be lake, therefore, has numerous economic and environmental functions, both locally and on a wider scale.

The forest at the national park protects part of the catchment of Ba Be lake. Without this, disruption to the aquatic ecosystem from sediment inflow would occur. Siltation of the lake would eventually reduce its floodwater buffering capacity, which would have repercussions for downstream communities along the Nang river.

Related projects

The largest conservation project currently being implemented at Ba Be National Park is the PARC Project. The project document was signed on 20 November 1998, and aims at a landscape ecology approach to conservation. The principal source of funding for the project is the Global Environment Facility, with counterpart funding from UNDP and the government of Vietnam. The project is also being implemented at Na Hang proposed nature reserve and Yok Don National Park.

The Institute of Ecological Economics (Eco-Eco) has carried out activities in the buffer zone of Ba Be National Park, under a project entitled *Sustainable Utilisation of Non-timber Forest Products*. This was implemented by the Non-timber Forest Products Research Centre of MARD, with funding from the Netherlands government, and with technical support from IUCN.

Helvetas and FINNIDA have implemented community development projects in the buffer zone of the national park.

Finally, the national 661 Programme is currently funding forestry activities at the national park.

Conservation needs assessment

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

Operational management plan

An operational management plan, covering the period from 2001 to 2005, was prepared by Ba Be National Park Management Board, with the support of the PARC Project. Priority management actions for the national park management board were grouped under four management objectives:

1. strengthen national park staff capacity to conduct biodiversity conservation and forest protection;
2. conduct biodiversity investigation, studies and monitoring, as a basis for improved protection;
3. promote forest protection contracts, in order to quickly regenerate forest lands;
4. assist in the development of infrastructure and improvement of local people's living standards, particularly inside the national park.

Eligibility against VCF criteria

The site is eligible for VCF funding because it meets criteria A, B and C.

Criterion	Eligibility
A_I	NH2 - Northern Highlands Limestone
A_{II}	
B_I	Decision No. 83/TTg, dated 10/11/92
B_{II}	National Park
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	

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