Con Dao National Park

Alternative site name(s) Investment plan prepared Con Son, Poulo Condore Yes VCF eligibility criteria met Province(s) Ba Ria-Vung Tau B.C Social screening criteria met Area 19,998 ha None Coordinates Conservation needs assessment prepared 8º37' - 8º48'N, 106º32' - 106º45'E No Agro-ecological zone Operational management plan prepared South-eastern No Decreed by government Tracking tool completed Yes No Management board established <u>Map available</u> Yes Yes

Management history

The Con Dao archipelago is located about 80 km off the coast of southern Vietnam. In 1983, the FPD of Vung Tau-Con Dao Special Area, in cooperation with the FPD of the former Ministry of Forestry and Ho Chi Minh City Forest Inventory and Planning Sub-Institute (Sub-FIPI), prepared a feasibility study for the Con Dao archipelago, which recommended establishing a Special-use Forest at the site. Following this recommendation, Decision No. 85/CT of the Chairman of the Council of Ministers, dated 1 March 1984, decreed the establishment of Con Dao National Park, with an area of 6,000 ha (MARD 1997).

In 1990, Con Dao National Park Management Board, in collaboration with the Centre for Natural Resources and Environmental Studies, prepared an investment plan for Con Dao National Park (Anon. 1990). This investment plan was approved by Decision No. 135/TTg of the Prime Minister, dated 31 March 1993. According to the Prime Minister's decision, the total area of the national park was 15,043 ha, comprising terrestrial component of 6,043 ha and a marine component of 9,000 ha. Subsequently, a national park management board was established, following Decision No. 396/QD-UB of Ba Ria-Vung Tau Provincial People's Committee, dated 28 May 1993. The management board currently has 66 members of staff, based at the national park headquarters and 10 guard stations. The management board has established a marine patrol group, with two high-speed boats and one wooden patrol boat. The management board is under the direct management of the provincial people's committee (Con Dao National Park Management Board *in litt.* 2003).

In 1997, Ho Chi Minh City Sub-FIPI prepared a revised investment plan for Con Dao National Park, for the period 1998 to 2002. This investment plan gave the total area of the national park as 19,998 ha, comprising a strict protection area of 5,446 ha, a forest rehabilitation area of 500 ha, an administration and services area of 52 ha and a marine protection area of 14,000 ha. In addition, a marine buffer zone of 20,500 ha was defined (Anon. 1997). The revised investment plan was approved by Decision No. 1165/QD-UB of Ba Ria-Vung Tau Provincial People's Committee, dated 16 May 1998 (Con Dao National Park Management Board *in litt.* 2000).

Con Dao is included on a list of Special-use Forests to be established by the year 2010, prepared by the FPD of MARD, as a 19,998 ha national park, including a 14,000 ha marine component (FPD 2003); this list has not yet been approved by the government.

Topography and hydrology

Con Dao National Park is centred on an archipelago of 14 islands, the largest of which is Con Son. The

topography of Con Son island is mountainous, and dominated by a granite ridge, which runs from southwest to north-east, sheltering the bays on both sides of the island from strong winds. The highest points on the island are the summits of Mount Thanh Gia and Mount Chua, at 577 and 515 m respectively. The smaller islands reach a maximum elevation of 200 m.

There are no permanent watercourses on any of the islands of the Con Dao archipelago, only seasonal streams. In the rainy season, water is plentiful but, in the dry season, there is a serious lack of water. Three reservoirs collect water during the rainy season to supply the local population during the dry season.

The Con Dao archipelago is located on the boundary between two sea currents: a warm one from the south, and a cold one from the north.

Biodiversity values

Con Son island and many of the other islands of the archipelago are extensively forested. According to the revised investment plan, the national park supports 4,905 ha of forest, equivalent to 81% of the total terrestrial area. To date, 882 vascular plant species have been recorded at the national park, including 91 species of medicinal plant. One outstanding feature of Con Dao's flora is the 44 plant species that were discovered for the first time on the islands. A number of these species are named after the site, including *Dipterocarpus condorensis*, *Ilex condorensis*, *Pavetta condorensis* and *Psychotria condorensis* (Anon. 1997).

To date, 24 species of mammal, 69 species of bird and 42 species of reptile and amphibian have been recorded at the national park. Although the number of species is relatively low, the density of individual species is often high, and there are a number of endemic taxa, including an endemic subspecies of Black Giant Squirrel, Ratufa bicolor condorensis. The bird fauna of Con Dao National Park is not well studied. However, a number of bird species recorded at Con Dao are not known from any other site in including Nicobar Pigeon Caloenas Vietnam, nicobarica, Red-billed Tropicbird Phaethon aethereus, Pied Imperial Pigeon Ducula bicolor and Masked Booby Sula dactylatra.

The marine ecosystems at the national park include mangroves, coral reefs and seagrass beds. Mangroves cover a total of 15 ha, and are distributed around Ba island and along the west coast of Bay Canh island, and along the north and south coasts of Con Son island. The coral reefs at Con Dao are among the most pristine in Vietnam, and are distributed in shallow waters around the islands, covering a total area of around 1,000 ha. The coral reefs support high levels of biodiversity, including over 270 coral species. Surveys conducted by Nha Trang Institute of Oceanography have shown the presence of 1,323 species of marine fauna and flora, including 44 species listed in the Red Data Book of Vietnam (ADB 1999). At 153 species, the recorded mollusc diversity of Con Dao is the highest of any of Vietnam's offshore islands (ADB 1999). The national park supports around 200 ha of seagrass beds, which support a small population of the globally threatened marine mammal, Dugong Dugong dugon, numbering around 12 individuals (Con Dao National Park Management Board in litt. 2003).

Con Dao National Park contains a number of nesting beaches for Green Turtle *Chelonia mydas* and Hawksbill Turtle *Eretmochelys imbricata*, two globally threatened marine turtles (Nguyen Thi Dao 1999). More than 250 females visit a total of 14 nesting sites annually, forming over 1,000 nests. Nearly 80% of the nesting takes place between June and September (Nguyen Truong Giang 2003). Furthermore, a number of cetaceans have been recorded in the marine component of Con Dao National Park (Con Dao National Park Management Board *in litt.* 2003).

Conservation issues

To date, the level of human impact on the terrestrial ecosystem has been relatively low (J. Hardcastle *in litt.* 2000). One exception, however, is introduced mammal species, which are a particular threat to populations of ground-nesting birds, such as Nicobar Pigeon and seabirds (J. Eames verbally 2000).

One of the biggest threats to biodiversity at Con Dao National Park is infrastructure development. Currently, the islands are being developed as a site for tourism, and a number of associated construction projects are now under way. For example, a new airport will have been constructed by the end of 2003 (Nguyen Truong Giang 2003). These activities are likely to have severe negative impacts on the natural environment of the national park, in the form of pollution, disturbance to wildlife populations, and siltation of coral reefs and seagrass beds (J. Hardcastle *in litt.* 2000).

The marine biodiversity at Con Dao National Park is threatened by destructive fishing techniques, including the use of cyanide to catch live groupers. Another fishing technique with negative impacts on biodiversity is the use of high intensity lights. These lights are known to disorientate nesting turtles. Other threats to the marine turtles of Con Dao are collection of their eggs for food, oil pollution and infrastructure development (Nguyen Thi Dao 1999, Con Dao National Park Management Board *in litt.* 2003).

A fishing port has been built at Ben Dam bay, and was due to commence operating at the end of 2000. A series of other ports, including an oil depot, will be built in the coming years on Con Son island. The construction of these port facilities, and the associated increase in boat traffic, will certainly have negative impacts on the marine ecosystems in the form of pollution and increased disturbance to marine turtle nesting beaches.

Human activities are not the only threat to biodiversity at Con Dao National Park. In 1997, the islands were hit by Typhoon Linda, which caused some damage to the coral reefs, and disturbed marine turtle nesting sites.

Other documented values

The Con Dao archipelago has historical significance as the site of several prisons used by the French colonial regime and South Vietnamese regime. Many famous revolutionaries were imprisoned on the island prior to 1975, and the site is considered a national memorial. A 30 ha site incorporating the prisons has been formally recognised as a national heritage site by Decision No. 54/VH/QD of the Ministry of Culture and Information (ADB 1999).

The Con Dao archipelago has already been developed for tourism, which is now one of the most important sectors of the islands' economy. There is great potential to further develop ecotourism at the national park, in the form of hiking, birdwatching, snorkeling, diving and watching nesting turtles. Controlled and environmentally sensitive ecotourism development has the potential to raise awareness of conservation issues and generate revenue for management of the national park.

The waters off the Con Dao archipelago are an important fishery. Several marine products of high economic value, such as groupers and giant clams, occur in the area. The islands' mangroves are an important nursery area for the fishery.

Related projects

For the last eight years, the WWF Indochina Programme has been working with Con Dao National Park Management Board to implement a marine turtle conservation project. This project has initiated a turtle monitoring programme, and has set up five artificial hatcheries to protect turtle eggs from natural damage. This project has been funded by WWF International, WWF-US, WWF Netherlands and Danida (N Cox *in litt.* 2003).

In 1998, the WWF Indochina Programme, Nha Trang Institute of Oceanography and Hong Kong University of Science and Technology implemented a Danida-funded project on marine biodiversity conservation.

WWF, together with Global Environmental Consultants Ltd., implemented the *Con Dao Coastal and Marine Environmental Management Demonstration Project*, with funding from ADB. The objectives of this project were to develop a coastal and marine environmental management plan and an ecotourism plan for the national park.

In 2000, the WWF Indochina Programme implemented a second Danida-funded project on marine biodiversity conservation.

Between 2003 and 2006, a medium-sized UNDP/GEF project entitled *Sustainable Use of Coastal and Marine Resources in the Con Dao Islands Region* will be implemented. This project has been developed by the WWF Indochina Programme, in partnership with UNDP/GEF, Ba Ria-Vung Tau Provincial People's Committee and Con Dao National Park. The aim of this project will be to protect globally significant coastal and marine biodiversity in the Con Dao islands. This will be achieved through institutional strengthening, development of sustainable financing mechanisms and improved management.

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

Con Dao 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}	
BI	Decision No. 85/CT, dated 01/03/84
B_{II}	National Park
B _{III}	Under provincial management
CI	Management board established
CII	

Social screening requirements

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

Criterion	Eligibility
А	
В	
С	
D	

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