

# Can Gio Biosphere Reserve

**Alternative site name(s)**

Lam vien Can Gio [Can Gio forest park]

**Province(s)**

Ho Chi Minh City

**Area**

75,740 ha

**Coordinates**

10°22' - 10°40'N, 106°46' - 107°01'E

**Agro-ecological zone**

South-eastern

**Decreed by government**

No

**Management board established**

Yes

**Investment plan prepared**

Yes

**VCF eligibility criteria met**

A, C

**Social screening criteria met**

None

**Conservation needs assessment prepared**

No

**Operational management plan prepared**

No

**Tracking tool completed**

No

**Map available**

Yes

## Management history

The Can Gio area once supported natural mangrove forest but this was almost fully destroyed by herbicides during the Second Indochina War. Between 1978 and 1986, the area was reforested with mangrove under the direction of Duyen Hai Forest Enterprise. Subsequently, from 1986 to 1990, Ho Chi Minh City People's Committee allocated the land in the Can Gio area to 23 forest enterprises and state farms (ADB 1999). On 29 May 1991, part of the Can Gio area was designated as a coastal protection forest, following Decision No. 173/CT of the Chairman of the Council of Ministers (Nguyen Dinh Cuong 1994). On 2 January 2000, a management board was established for Can Gio Coastal Protection Forest, following Decision No. 169/QD-UB-CNN of Ho Chi Minh City People's Committee. This management board currently has 96 members of staff, and has responsibility for 36,997 ha of the Can Gio area (Cat Van Thanh, Vice-director of Can Gio Coastal Protection Forest *in litt.* 2003).

In 1999, a proposal to designate Can Gio as a biosphere reserve was prepared and submitted to UNESCO (ADB 1999). Can Gio was designated as Vietnam's first biosphere reserve on 21 January 2000, with a total area of 75,740 ha, incorporating Can Gio Coastal Protection Forest.

A management board for Can Gio Biosphere Reserve was established on 30 August 2000, following Decision No. 5902/QD-UB of Ho Chi Minh City People's Committee. This management board currently has seven members of staff. The biosphere reserve is currently under the management of Ho Chi Minh City People's Committee.

## Topography and hydrology

Can Gio Biosphere Reserve is located in Can Gio district (previously Duyen Hai district), in the coastal zone of Ho Chi Minh City. The area is situated in a recently formed estuary complex of tidal flats, where the Vam Co, Saigon and Dong Nai rivers discharge into the sea. The topography of Can Gio is low-lying and dynamic. The site is divided by a network of canals and rivers.

## Biodiversity values

The major habitat types found at Can Gio are plantation mangrove, of which there is about 20,000 ha, and naturally regenerating mangrove, of which there is about 7,000 ha (ADB 1999). The principal mangrove species used for replantation has been *Rhizophora apiculata*, although *R. mucronata* has also been used in smaller amounts (Vien Ngoc Nam 1994). In addition to the mangroves, the site also

supports seagrass beds dominated by *Halophylla* sp., *Halodule* sp. and *Thalassia* sp. (ADB 1999).

A total of 18 mollusc, 27 crustacean, 45 fish and three amphibian species have been recorded at the site. There are anecdotal reports of local farmers shooting an Estuarine Crocodile *Crocodylus porosus* at the site in around 1990, although there have been no records since then. Also, Dugong *Dugong dugon* has been reported to occur seasonally in seagrass beds at the site, although these reports have not been confirmed (ADB 1999).

The intertidal mudflats and sandbanks at the biosphere reserve are an important habitat for migratory shorebirds. ADB (1999) reports that Wood Sandpiper *Tringa glareola*, Common Redshank *T. totanus*, Common Sandpiper *Actitis hypoleucos*, Grey Plover *Pluvialis squatarola*, Lesser Sand Plover *Charadrius mongolus* and Black-winged Stilt *Himantopus himantopus* occur at the site. In addition, several globally threatened and near-threatened waterbird species have been recorded at the IBA, including Spotted Greenshank *Tringa guttifer*, Asian Dowitcher *Limnodromus semipalmatus*, Spot-billed Pelican *Pelecanus philippensis* and Painted Stork *Mycteria leucocephala* (Tordoff 2002). Consequently, Can Gio qualifies as an Important Bird Area (Tordoff 2002).

## Conservation issues

There are several threats to biodiversity at Can Gio Biosphere Reserve, the most significant of which are cutting mangrove trees for timber and fuelwood, and conversion of mangrove forest into aquacultural ponds. ADB (1999) report that, in recent years, pressure to develop aquaculture has increased. ADB (1999) identify several other major human impacts, including destructive fishing techniques, oil spills and sewage discharge from nearby urban areas. Furthermore, afforestation of intertidal flats with mangrove is presumably a major threat to migratory waterbirds at the site, as it threatens to destroy their key habitat (Tordoff 2002).

## Other documented values

The mangrove forest at Can Gio performs many valuable ecological functions, including coastal stabilisation, and protection against coastal erosion, oil spills and storm surges. The mangrove forest is a source of fuelwood and construction materials (ADB 1999). Being close to Ho Chi Minh City, Can Gio Biosphere Reserve has great potential as a site for tourism, public education, scientific research and training. Already, the site receives a large number of visitors from Ho Chi Minh City. Can Gio could also serve as a demonstration site for mangrove afforestation projects elsewhere in Vietnam.

## Related projects

Action for Mangrove Reforestation, Japan, the European Union (EU), the John D. and Catherine MacArthur Foundation, Oxfam America and UNESCO/UNDP have all funded projects to research or support mangrove rehabilitation activities at Can Gio. Between 1994 and 1996, for example, the EU funded a two-year project entitled *Environmental Assessment of Mangrove Reforestation as a Means of Improving Coastal Protection, Stability and Fisheries Production*. This project was implemented by the Mangrove Ecosystem Research Division of the Centre for Natural Resources and Environmental Studies.

## 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

The site is ineligible for VCF funding because it is not a Special-use Forest.

Criterion	Eligibility
A <sub>I</sub>	
A <sub>II</sub>	VN051 - Can Gio
B <sub>I</sub>	
B <sub>II</sub>	
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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