

# Phu Quoc Proposed Marine Protected Area

## Alternative site name(s)

Phu Quoc-An Thoi

## Province(s)

Kien Giang

## Status

Proposed

## Management board established

No

## Latitude

9°53' - 10°28'N

## Longitude

103°49' - 104°05'E

## Bio-unit

05d - Cardamom Mountains



## Conservation status

Phu Quoc island lies in the Gulf of Thailand, about 40 km west of the Vietnamese mainland. Phu Quoc was included on Decision No. 194/CT of the Chairman of the Council of Ministers, dated 9 August 1986, which proposed establishing a 5,000 ha nature reserve (MARD 1997). According to the investment plan (Anon. 1998), Phu Quoc Nature Reserve covers 14,957 ha and includes no marine component (see Phu Quoc Nature Reserve site card).

In 1994, WWF and the Institute of Oceanography conducted a marine biodiversity survey of the group of small islands situated off An Thoi port at the southern tip of Phu Quoc island. As a result of this survey, the two organisations proposed establishing An Thoi Marine Protected Area (ADB 1999).

Phu Quoc was again proposed as a marine protected area by MOSTE in 1998. In this proposal, the total area of the proposed marine protected area was not identified (Nguyen Chu Hoi *et al.* eds. 1998). Subsequently, the Asian Development Bank (ADB 1999) proposed incorporating Phu Quoc Nature Reserve and An Thoi proposed marine protected area within a single, expanded protected area: Phu Quoc-An Thoi Nature Reserve. The proposed protected area covers 33,657 ha, comprising a terrestrial component

of 14,957 ha and a marine component of 18,700 ha. The proposed marine component has two sectors: a northern sector, which extends around the northern end of the island, is contiguous with Phu Quoc Nature Reserve and covers 9,900 ha; and a southern sector, which comprises An Thoi proposed marine protected area and covers 8,800 ha (ADB 1999).

If a marine protected area is established at Phu Quoc in the future, it will need to be clarified whether it would incorporate Phu Quoc Nature Reserve, or whether it would be limited to the marine component.

## Topography and hydrology

The Phu Quoc archipelago comprises 14 islands, the largest of which, Phu Quoc, covers 56,200 ha and reaches a maximum elevation of 603 m. With regard to the marine component, most of the northern sector is situated between the coast and the 6 m bathymetric contour. The southern sector is also situated in shallow waters, mostly less than 10 m in depth. However, the group of small islands is separated from the southern tip of Phu Quoc island by a deep strait, more than 60 m in depth.

## Biodiversity value

Phu Quoc proposed marine protected area supports ecosystems characteristic of the shallow coastal waters

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off south-western Vietnam. Seagrass beds occur at some sites to the west of Phu Quoc and Hon Thom islands, and cover an area of about 300 ha. Coral reefs occur around most islands in the southern sector of the marine component, and at some sites in the northern sector. At 41%, the cover of living coral is relatively high but species richness is rather low with the dominance of taxa including *Porites* and *Pavona*. The coral reef fish fauna is characterised by an abundance of groupers (Serranidae) and butterfly fish (Chaetodontidae). Juvenile fish of economic importance such as *Caranx sexfasciatus* and *Sphyræna* sp. can be observed on some reefs (ADB 1999).

The marine biota includes 89 hard coral species, 19 soft corals, 125 coral reef fishes, 132 molluscs, 32 echinoderms and 62 species of seaweed. These include several species of conservation concern, such as Scaly Clam *Tridacna squamosa* and Trochus Shell *Trochus nilotichus*. Prior to 1990, the globally critically endangered Hawksbill Turtle *Eretmochelys imbricata* was known to nest on the beaches of the Phu Quoc archipelago. However, the frequency of nesting has declined sharply in recent years. There are no recent records of Dugong *Dugong dugon* from the area, although local reports suggest that the species occurred in the past (ADB 1999).

## Conservation issues

Settlement of migrants from other parts of Vietnam is leading to a rapid growth in the population of Phu Quoc island. As fishing is one of the most important economic activities of the local population, the increasing population is putting increasing pressure on marine resources. Although fisheries production is actually increasing, it is not keeping pace with the number of boats in operation. Consequently, production per unit of effort is decreasing. This indicates that the area is being over-exploited, especially the shallow waters. There is also evidence that agricultural activities on the mainland are changing environmental conditions in the waters around Phu Quoc island, due to sedimentation and pollution (ADB 1999).

## Other documented values

The waters around the Phu Quoc archipelago are an important fishing ground, not only for the local population but for fishing communities in mainland Vietnam and, even, Thailand. The proximity of the island to Cambodia further emphasises the regional importance of the proposed marine protected area to fisheries management and the conservation of migratory fish species (ADB 1999). Furthermore, Phu Quoc proposed marine protected area has high potential for the development of ecotourism, particularly diving.

## Related projects

No information.

## Literature sources

ADB (1999) Draft coastal and marine protected areas plan. Hanoi: Asian Development Bank.

Anon. (1991) [Investment plan for North Phu Quoc Island Nature Reserve]. Rach Gia: Kien Giang Provincial People's Committee. In Vietnamese.

Anon. (1998) [Investment plan for Phu Quoc Special-use Forest, Kien Giang province]. Ho Chi Minh City: Ho Chi Minh City Sub-FIPI. In Vietnamese.

Cheung, C.P.S. (1992) Report on a visit to the coasts of Vietnam. Unpublished report to WWF Asian Region.

Dodd, J. and Lewis, M. (1996) Vietnam: the rough guide. London: Rough Guides.

Kien Giang Provincial FPD (2000) [FPD questionnaire]. Rach Gia: Kien Giang Provincial Forest Protection Department. In Vietnamese.

Nguyen Chu Hoi, Nguyen Huy Yet and Dang Ngoc Thanh eds. (1998) [Scientific basis for marine protected areas planning]. Hai Phong: Hai Phong Institute of Oceanography. In Vietnamese.

Nguyen Huy Yet and Vo Si Tuan (1995) [Information on proposed marine protected areas on the coast of Vietnam]. Hai Phong: Hai Phong Institute of Oceanography. In Vietnamese.

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Nguyen Van An (1992) The natural protected forest based development in the north Phu Quoc islands. Unpublished report to WWF Indochina Programme.

Storey, R. and Robinson, D. (1995) Lonely planet travel survival kit: Vietnam. Third edition. Hawthorn: Lonely Planet Publications.