

Information Sheet on Ramsar Wetlands

Categories approved by Recommendation 4.7 of the Conference of the Contracting Parties.

NOTE: It is important that you read the accompanying *Explanatory Note and Guidelines* document before completing this form.

1. Date this sheet was completed/updated:

Mar. 31, 1999

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Designation date

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Site Reference Number

2. Country: Cambodia

3. Name of wetland: Koh Kapik and Associated Islets

4. **Geographical coordinates:** 11deg. 31'N; 102deg. 59'E (NW tip of Koh Kapik), east north east to 11 deg. 32'N; 103 deg. 03'E, south east to 11 deg. 26'N; 103 deg. 09'E and west to 11deg. 25'N; 103 deg. 00'E (southern tip of Koh Kapik).

5. **Altitude:** (average and/or max. & min.) 2m (max) ASL

6. **Area:** (in hectares) 12,000 Ha

7. Overview: (general summary, in two or three sentences, of the wetland's principal characteristics)

Koh kapik and associated islets are alluvial islands immediately off the mainland of Koh Kong Province. Most of the land lie below 2 metres ASL and much is inundated only on spring tides. There is a large freshwater influence with the major rivers flowing in to the area. These are the Prek Koh Pao to the north and the Prek Khland Yai/ Stoeng Kep to the south.

Most of the material brought down by the rivers is sandy in nature and in many places there are sand flats. The substrate of the islands is sand overlain by humus or organic mud of 10-30 cm depth. The only well developed mudflats are found along the western side of Koh Kapik.

The catchment area of the two river systems is relatively undisturbed forest over sandstone.

8. Wetland Type (please circle the applicable codes for wetland types as listed in Annex I of the *Explanatory Note and Guidelines* document.)

marine-coastal: A . B . C . D . E . F . G . H . I . J . K

inland: L . M . N . O . P . Q . R . Sp . Ss . Tp . Ts
. U . Va . Vt . W . Xf . Xp . Y . Zg . Zk

man-made: 1 . 2 . 3 . 4 . 5 . 6 . 7 . 8 . 9

Please now rank these wetland types by listing them from the most to the least dominant: I, F, G

9. Ramsar Criteria: (please circle the applicable criteria; see point 12, next page.)

1a . 1b . 1c . 1d | 2a . 2b . 2c . 2d | 3a . 3b . 3c | 4a . 4b

Please specify the most significant criterion applicable to the site: 2C

10. Map of site included? Please tick *yes* ✓ -or- *no* ☐

(Please refer to the *Explanatory Note and Guidelines* document for information regarding desirable map traits).

11. Name and address of the compiler of this form:

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Please provide additional information on each of the following categories by attaching extra pages (please limit extra pages to no more than 10):

12. Justification of the criteria selected under point 9, on previous page. (Please refer to Annex II in the *Explanatory Note and Guidelines* document).

The site has been chosen because of the representative status of mangrove system which is common to the region but is under heavy threat in many parts of the country and in the region. The estuary-mangrove system plays a critical role in providing substantial nutrient source supporting coastal fishery in the near-shore and offshore of Cambodia marine waters. When heavy removal of mangrove forest in the neighbour Thailand occurred, this remaining relative intact mangroves contribute significantly to providing nursery and feeding grounds to various invertebrate species which subsequently serve as food for local and distant fisheries.

13. General location: (include the nearest large town and its administrative region)

The proposed site Koh Kapik nominated as a wetland of international importance is located on the Cambodian coast near the border with Thailand to the west. The site located approximately 15 kilometres southeast of Koh Kong town which is the main administrative centre in Koh Kong province.

14. Physical features: (e.g. geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth water permanence; fluctuations in water level; tidal variations; catchment area; downstream area; climate)

The soil here is alluvial. The islands have been formed from deposition of mud and sand eroded in the sandstone catchments of the two rivers. There are extensive sand flats but little development of mud flats. The island soil consists of a thin organic mud or humus layer overlying sand and sandy loam.

The area lies in the delta of two rivers thus strongly influenced by freshwater surface runoff. The catchment comprises part of the southern slope of the forested Cardamom Mountain. The area receives rainfall almost throughout the year and there is only a short semi-dry season from December to February. Tidal fluctuation occurs twice daily with about one metre variation on average. The site lies in the intertidal area where most part is dry at low tide. Water remains permanent in some depression and in water channels at about 1 meter on average.

15. Hydrological values: (groundwater recharge, flood control, sediment trapping, shoreline stabilisation etc)

Given the present of relatively intact mangroves, the area contributes significantly in the stabilisation of the coast against coastal erosion from storms and tidal bore. Most sediment runoff from the two rives are trapped and settled forming sand and mud accretion along side many small creek systems.

16. Ecological features: (main habitats and vegetation types)

There are three major vegetation types:

Mangrove

Most of the members of the mangrove community are characteristic of areas which are inundated only at some high tides and where there is a large degree of freshwater influence. The islands and creeks are typically fronted by *Rhizophora apiculata*, one of the most common of the mangrove species present, and stands of *Nypa fruticans*. Immediately behind this fairly narrow strip of *Rhizophora* there is an interesting mixture of other mangrove species of which the following are most common: *Brugiera gymnorrhiza*, *B. sexangula*, *Ceriops tagal*, *Lumnitzera littorea*, *Heritiera littoralis*, *Xylocarpus granatum*, *Hibiscus tiliaceus*, *Phoenix paludosa*, *Acrosticum speciosum*, *Aegialitis* sp. and *Acanthus* sp.. *Avicennia* and *Sonneratia* are relatively infrequent in the area, although *Avicennia* was tentatively identified from the air on accreting mudflats on the west side of Kaoh Kapik and in some depressions slightly inland.

"Rear Mangrove" community

On some of the islands and on the mainland between Prek Khlang Yai and Prek Thngo, the mangrove community is only a narrow band, and is replaced by a community which is above the high tide mark and is probably only subject to freshwater inundation during the wet season. This community is dominated by *Melaleuca leucodendron*. In many places, there is an almost pure stand of this tree, but this is probably due to repeated burning rather than it being a natural vegetation type. The substrate is predominantly sandy with typically a 10-15 mm. layer of humus.

Other plants typical of this community are: *Pandanus*, *Licuala spinosa*, *Acrosticum aureum*, *A. speciosum*, *Hibiscus tiliaceus*, *Xylocarpus granatum*, *Heritiera littoralis*, *Phoenix paludosa*, *Melostoma* sp. (in more disturbed areas) and *Scleria* sp. together with several rattans and epiphytes such as orchids and the bird nest fern *Asplenium nidens*.

Beach strand vegetation

At the south west side of Kaoh Kapik and on sandy areas of some of the islands, there are small areas of typical beach strand vegetation dominated by *Casuarina equisetifolia* with some *Terminalia catappa*.

17. Noteworthy flora: (indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc)

The site represents an excellent mangrove system of *Rhizophora spp.* backed by *Melaleuca* which is rapidly being lost elsewhere.

18. Noteworthy fauna: (indicating, e.g., which species are unique, rare, endangered, abundant or biogeographically important; include count data, etc.)

The area is important in the provision of nursery, spawning and feeding ground for large variety of commercially important fish and shellfish. The area is also important for birds such as Normann's greenshank, Broad-billed sandpiper and for some endangered aquatic mammal species such as dolphin.

19. Social and cultural values: (e.g. fisheries production, forestry, religious importance, archaeological site etc.)

The area is valuable for the large area of mangroves and rear mangrove communities which are representative of the coasts of Cambodia and Thailand, however they have been largely destroyed in other areas. Although some areas are under the threat of disturbance, there are large areas of old growth mangrove such as *Rhizophora apiculata* and *Lumnitzera littorea* with an abundance of epiphytes.

The mangrove and *Melaleuca* areas play a vital role for the local community in providing:

*charcoal and fuelwood

- *timber for piling and construction
 - *fishes, crustaceans and molluscs (such as *Telescopium telescopium*) for consumption
 - *nursery, spawning and feeding areas for economically important fishes and shellfishes
 - * support for coastal fisheries through export of detritus to coastal waters
 - *protection from coastal erosion.
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20. Land tenure/ownership of:

(a) site

The area is state-owned. The aquatic system including open water and mangrove areas is under jurisdiction by the Department of Fisheries. Since the area overlaps with the Wildlife Sanctuary (Peam Krasaop), it is also protected under the Nov. 01, 1993 Royal Decree on the Designation and Creation of National Protected Area System.

(b) surrounding area

Surrounding mangrove and water system are under the jurisdiction of the Department of Fisheries. The *Melaleuca* species areas which lie landward above high tide are controlled by the Department of Forestry and the adjacent designated Wildlife Sanctuary (Peam Krasaop) which includes part of this site lies under a Royal Decree of Nov. 01, 1993, is to be protected under the supervision by the Ministry of Environment.

21. Current land use:

(a) site

The mangrove in the area is relatively intact. Local use of the mangrove is for fuelwood, charcoal and house construction. Local communities living use the area for harvesting fish and shellfish using traps and gill nets.

(b) surroundings/catchment

Although there are settlements in the lowlands and around the rivers with some cultivation and cutting/burning of the forest, the catchment is relatively intact. Most of commercial activities have stopped in recent years.

22. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land use and development projects:

(a) at the site

The increasing threat in recent years has been the commercial exploitation of mangrove species mostly *Rhizophora* for charcoal production. A few shrimp ponds were built and operating by the edge of the site but have now stopped as water quality is deteriorated.

(b) around the site

Severe threat occurred in the past three years when there was a boom on shrimp farming. Many parts of mangrove area close to the border with Thailand were cleared and made for shrimp farming. Due to adverse effects from the discharge there are now only a number of farms remaining in operation. Commercial charcoal production was wide spread but is now under control and restricted to small scale for local use. Logging upstream in the catchment has now under stricter control by the government.

23. Conservation measures taken: (national category and legal status of protected areas - including any boundary changes which have been made; management practices; whether an officially approved management plan exists and whether it has been implemented)

There is no management at present, but the area recommended as a wetland of international importance here is within a designated protected area – the Peam Krasop Wildlife Sanctuary of 23,750ha. – the description and management objectives of which are: "Natural areas where nationally significant species of flora and fauna, natural communities, or physical features require specific intervention for their perpetuation".

The area is ideal for implementing and demonstrating the wise use concepts of the Ramsar Convention. The population density in and around the area is low compared to that in many other Southeast Asian countries and there is little doubt that, with proper management, the mangrove and *Melaleuca* areas could be used sustainably by local people for charcoal, firewood, poles, building materials, fish and shellfish while maintaining the other important benefits. At present there is cutting of mangrove trees, especially *Rizophora*, but there is still plenty of old growth with sufficient mature trees still present to ensure adequate regeneration.

24. Conservation measures proposed but not yet implemented: (e.g. management plan in preparation; officially proposed as a protected area etc.)

There is an urgent need to conduct EIAs on potential sites for aquaculture to ascertain the suitability for the site in terms of water and substrate quality and to ascertain the value of the areas for other purposes. A zoning plan should be developed for the whole of the coast in Koh Kong province so that shrimp ponds and other forms of coastal aquaculture can be confined to certain areas and so that the valuable areas on and around Koh Kapik can be conserved.

25. Current scientific research and facilities: (e.g. details of current projects; existence of field station etc.)

A project on Participatory Natural Resources Management supported by IDRC is working on a two year programme (Dec. 1997-Nov. 1999) for building community participation in natural resources management.

Coastal Zone Management project funded by DANIDA has just finished its first phase, by the end of March 1999, which was focusing on establishing a coastal resource profile and on the collection of data on community use of natural resources in the coastal area. The proposal for second phase has been submitted for funding. It emphasises six development and management issues include institutional and legal framework, capacity building in coastal resource management, community awareness and participation, sustainable coastal resource use, provincial action plan for coastal resource management, and waste management.

26. Current conservation education: (e.g. visitors centre, hides, information booklet, facilities for school visits etc.)

No education information specifically for the area is developed. But there is a general environmental education programme covering many environmental aspects including the awareness on wetlands. Although there is no information facility at place, the area is easily accessible by boat. Over night stays are possible and information can be retrieved from local villagers nearby the site.

27. Current recreation and tourism: (state if wetland is used for recreation/tourism; indicate type and frequency/intensity)

The site has yet been developed for recreational purpose. There is no tourism facility at place and most visitors came to the site were to do their research study. Due to the presence of relatively untouched mangroves, the area is a potential site for recreation when transportation route is improved.

28. Jurisdiction: (territorial e.g. state/region and functional e.g. Dept of Agriculture/Dept. of Environment etc.)

The area lies under administrative jurisdiction of Koh Kong province. The management jurisdiction of the resources within the area, however, lies with the Department of Fisheries that control fishing, aquaculture and exploitation of mangrove resources and with the Ministry of Environment that supervises the management of resources within the designated protected area (Peam Krasop Wildlife Sanctuary).

29. Management authority: (name and address of local body directly responsible for managing the wetland)

There is no clear indication of the authority in responsibility for the management of wetlands. The Department of Fisheries and the Department of Nature Conservation and Protection are jointly responsible for the management of wetlands.

Department of Fisheries
#186, Norodom Blvd. Tonle Bassac,
Chamkarmon, Phnom Penh

Department of Nature Conservation and Protection,
Ministry of Environment
#48, Samdech Preah Sihanouk Blvd., Tonle Bassac,
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30. Bibliographical references: (scientific/technical only)

Asian Wetland Bureau, 1994, Wetland Surveys in Cambodia to Identify Sites of International Importance, Draft Final Report, AWB, Kuala Lumpur.
Wetlands International, 1996, Cambodia Wetlands – Ornithological Survey, WI, Kuala Lumpur.

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