

**Designation date: 12/08/2013      Ramsar Site no. 2153**

# Information Sheet on Ramsar Wetlands (RIS) – 2009-2014 version

Available for download from [http://www.ramsar.org/ris/key\\_ris\\_index.htm](http://www.ramsar.org/ris/key_ris_index.htm).

*Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8<sup>th</sup> Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX.22 of the 9<sup>th</sup> Conference of the Contracting Parties (2005).*

### Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 14, 3<sup>rd</sup> edition). A 4<sup>th</sup> edition of the Handbook is in preparation and will be available in 2009.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

---

### 1. Name and address of the compiler of this form:

Dr.Sirikul Bunpapong  
The Office of Natural Resources and Environmental Policy  
and Planing  
60/1 Soi Phiboon Wattana 7, Rama VI Road,Phaya Thai,  
Bangkok 10400,Thailand  
Tel/Fax.(+662) 265 6637/(+662) 265 6638  
Email: sirikb@yahoo.com

Dr. Anuwat Nateewathana  
3/3 Petchakasem Road, Tambol Omnoi, Amphoe Kratum Ban  
Samut Sakorn 74130,Thailand  
Tel.:668 11731151  
Email : anuwat007@gmail.com

FOR OFFICE USE ONLY.

DD MM YY

--	--	--

Designation date

--	--	--	--	--	--

Site Reference Number

---

### 2. Date this sheet was completed/updated:

10 March, 2012

---

### 3. Country:

Thailand

---

### 4. Name of the Ramsar site:

The precise name of the designated site in one of the three official languages (English, French or Spanish) of the Convention. Alternative names, including in local language(s), should be given in parentheses after the precise name.

**5. Designation of new Ramsar site or update of existing site:**

This RIS is for (tick one box only):

- a) Designation of a new Ramsar site  ; or
  - b) Updated information on an existing Ramsar site
- 

**6. For RIS updates only, changes to the site since its designation or earlier update:**

a) Site boundary and area

The Ramsar site boundary and site area are unchanged:

or

If the site boundary has changed:

- i) the boundary has been delineated more accurately ; or
- ii) the boundary has been extended ; or
- iii) the boundary has been restricted\*\*

and/or

If the site area has changed:

- i) the area has been measured more accurately ; or
- ii) the area has been extended ; or
- iii) the area has been reduced\*\*

\*\* **Important note:** If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

**b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:**

---

**7. Map of site:**

Refer to Annex III of the *Explanatory Note and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

**a) A map of the site, with clearly delineated boundaries, is included as:**

- i) a hard copy (required for inclusion of site in the Ramsar List): ;
- ii) an electronic format (e.g. a JPEG or ArcView image) ;
- iii) a GIS file providing geo-referenced site boundary vectors and attribute tables .

**b) Describe briefly the type of boundary delineation applied:**

e.g. the boundary is the same as an existing protected area (nature reserve, national park, etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The Ko Ra (1,949.92 ha.) and Ko Phra Thong (10,200 ha.). In the North, The Ko Ra and Ko Phra Thong is adjacent with Tung Nang Dam Village, Kuraburi Sub-district, Kuraburi District, Pang-Nga Province. In the East is adjacent with Mae Nang Kwang Village, Kuraburi Sub-district, Kuraburi District, Pang-Nga Province. The South is adjacent with Ko Khor Kao Sub-district, Takuapa District, Pang-Nga Province and the West is Andaman Sea.

---

**8. Geographical coordinates** (latitude/longitude, in degrees and minutes):

Provide the coordinates of the approximate centre of the site and/or the limits of the site. If the site is composed of more than one separate area, provide coordinates for each of these areas.

Centre point 9 ° 08'16"N, 98° 16' 34"E

---

**9. General location:**

Include in which part of the country and which large administrative region(s) the site lies and the location of the nearest large town.

The site which comprises of two islands is located in the Andaman Sea off the west coast of Southern Thailand, approximately 690 km from Bangkok. The site is a part of Kuraburi District of Phang Nga Province and is roughly 1-4 km offshore. The site is 20 km away from the nearest town of Kuraburi and lies 50 km south of Ranong city.

---

**10. Elevation:** (in metres: average and/or maximum & minimum)

0-235 m above the average sea level.

---

**11. Area:** (in hectares)

Ramsar site area is 19,648. ha.

---

**12. General overview of the site:**

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

Habitats of the site include grasslands, peat swamp forests, freshwater pools, evergreen forests, mangrove forests, extensive sea-grass beds and coral reefs. There are human settlements on both islands at the site despite the lack of permanent sources of freshwater.

The site supports a rare and complex habitat mosaic in the Andaman Sea Coral Coast ecoregion. These include several wetland types including a rare sandy beach forest and grassland, freshwater peat forest, mangroves and lowland mixed forest, sandy, rocky and muddy shorelines, sea-grass beds, coral reef, extensive and productive estuaries and freshwater swamps. Ko Ra, north of Ko Phra Thong, is a rocky island covered with moist evergreen forest. The adjacent mangrove forest on mainland is one of a few remaining large patches of the forest in the Ramsar site.

This site is a hotspot for biodiversity in the Andaman Sea Coral Coast ecoregion. The site supports at least 5 species of sea turtles found on western part of Indian.

Ko Phra Thong is the last remaining site in Thailand known to support a significant breeding population of the vulnerable Lesser Adjutant (*Leptopilos javanicus*).

The site also provides appropriate habitat for nesting and foraging for four threatened turtle species and for the vulnerable Dugong (*Dugong dugon*)

The 7 km<sup>2</sup> sea-grass beds is an important nursery ground for 268 species of coastal fishes and numerous marine species.

The islands are located in a natural harbour of Kuraburi District and support a number of threatened plant and animal species. These ecological characters were the basis of the proposed enlistment of one of the islands, Ko Phra Thong, as a Non Hunting area.

### 13. Ramsar Criteria:

Tick the box under each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11). All Criteria which apply should be ticked.

1 • 2 • 3 • 4 • 5 • 6 • 7 • 8 • 9

### 14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

#### Criteria 1.

The proposed site supports a rare and complex habitat mosaic in the Andaman Sea Coral Coast ecoregion. These include several wetland types including a rare sandy beach forest and grassland, freshwater peat forest, mangroves and lowland mixed forest, sandy, rocky and muddy shorelines, sea-grass beds, coral reef, extensive and productive estuaries and freshwater swamps. Ko Ra, north of Ko Phra Thong, is a rocky island covered with moist evergreen forest.

#### Criteria 2

English Name	Scientific Name	IUCN Category	CMS Appendix	CITES Appendix	National Protection Class	Thailand Red Data
Birds						
Lesser Adjutant	<i>Leptoptilos Javanicus</i>	VU	-	-	-	CR
Chinese Egret	<i>Egretta eulophotes</i>	VU	-I	-	-	EN
Pale-capped Pigeon	<i>Columba punicea</i>	VU	-	-	-	-
Mammals-						
Dugong	<i>Dugong dugon</i>	VU	II-	I-	-	CR
Sambar deer	<i>Cervus unicolor</i>	VU	-	-	-	VU
Sunda pangolin	<i>Manis javanica</i>	EN	-	II-	-	NT
Smooth-coated otter	<i>Lutrogale perspicillata</i>	VU	-	II-	-	VU
Striped dolphin	<i>Stenella coruleoalba</i>	-	-	-	-	EN
Bryde' swhale	<i>Balaenoptera edeni</i>	DD	-	-	-	EN
Indo-Pacific hump-backed dolphin	<i>Sousa chineensis</i>	NT	-	-	-	VU
Reptiles						
Green Turtle	<i>Chelonia mydas</i>	-	I,II-	-I	-	CR
Hawksbill Turtle	<i>Eretmochelys imbricata</i>	CR	-I,II	-I	-	CR
Oliver ridley Turtle	<i>Lepidochelys olivacea</i>	-	-I,II	-I	-	CR
Leatherback Turtle	<i>Dermochelys coriacea</i>	CR	I,II-	I-	-	CR
Elongated Tortoise	<i>Indotestudo elongata</i>	EN	-	II-	-	EN
Sunburst Turtle	<i>Heosemys spinosa</i>	EN	-	II-	-	VU
Burmese Mountain Tortoise	<i>Manouria emys</i>	EN	-	II-	-	EN
Asian Box Turtle	<i>Cuora amboinensis</i>	-	-	II-	-	VU
Black Marsh Turtle	<i>Siebenrockiella crassicollis</i>	VU	-	II-	-	VU

### Criteria 3.

This site is a hotspot for biodiversity in the Andaman Sea Coral Coast ecoregion. About 135 fish species (marine and freshwater), 44 reptilians, 8 amphibians, 138 birds, 21 mammals and 55 Coral species are known to inhabit or visit the site. 351 floristic taxa are present on the islands, 10 seagrass species occur in the northern part of the site. The site supports at least 5 species of sea turtles found on western part of Indian Ocean.

### Criteria 4.

Ko Phra Thong is the last remaining site in Thailand known to support a significant breeding population of the globally threatened Lesser Adjutant (*Leptoptilos javanicus*).

The site also provides appropriate habitat for nesting and foraging for four threatened turtle species, the Green Turtle (*Chelonia mydas*), Oliver Ridley Turtle (*Lepidochelys olivacea*), Hawksbill turtle (*Eretmochelys imbricate*) and Leatherbacked Turtle (*Dermochelys coriacea*) and for the vulnerable Dugong (*Dugong dugon*)

The site supports three threatened birds such as Chinese Egret (*Egretta eulophotes*), Lesser Adjutant (*Leptoptilos javanicus*), and Great Crested Tern (*Sterna bergii*) in terms of feeding grounds and providing a refuge

### Criteria 8.

The 7 km<sup>2</sup> seagrass bed is an important nursery ground for 268 species of coastal fishes and numerous marine species. (Variable sabertooth blenny (*Petroscirtes variabilis*), Brown-striped wrasse (*Halichoeres bicolor*), Belly-lined goby (*Acentrogobius multifasciatus*), Immaculate pufferfish (*Arothron immaculatus*), Flat-tail cardinalfish (*Apogon truncates*) etc.)

---

### 15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

#### a) biogeographic region:

Western Indo-Pacific realm-Andaman Sea province- Andaman Sea Coral Coast ecoregion

#### b) biogeographic regionalisation scheme (include reference citation):

Marine Ecoregions of the World-(Spalding et al 2007)

---

### 16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc

The wetlands of Ko Ra - Ko Phra Thong and adjacent areas are formed on a sand bar from alluvial deposits dating back to the Quaternary formation and Holocene Marine Geomorphologic units. They comprise of sub-tidal mudflats, young sandy beaches, old sandy beaches, intertidal mudflats. These wetlands contain mangrove

areas in its eastern part and sedimentary rock formations in the northern part. The water levels in this network are influenced by the sea's tides and freshwater run-off. The surface water on the islands mainly consists of six types of reservoirs; which are shallow wells, dredging ponds, old mining pools, natural ponds, canals and peat swamps. The most recent measure of sea water quality around the islands found the pH value to be 8.25 on average with conductivity of 50.6 uS/cm, salinity of 33 ppt, dissolved oxygen of 6.7ppm, suspended solid of less than 2.5 and transparency of 5.9. Ko Ra- Ko Phra Thong has two high tides and two low tides each day, so-called semi-diurnal tides. The semi-diurnal range (the difference in height between high and low waters over about half a day) varies in a two-week cycle. Approximately twice a month, the spring tide which the tide's range is at its maximum, local people can use boats to travel around the canals of the island during high water. Spring tides result in high waters that are higher than average, low waters that are lower than average, 'slack water' time that is shorter than average and stronger tidal currents than average. The boats cannot be used during low water of the spring tide. Water level is rather low, almost dry in the canals during neap tide, when the tide's range is at its minimum. Neaps result in less extreme tidal conditions. However, the boats still can be used while low water during neap tides. There is about a seven-day interval between springs and neaps. Soil found on the islands comprises of sandy soil, clay soil, sandy loam, clay, and peat with pH value between 5.5-8.0.

The islands have a typical tropical climate with an annual average rainfall of 260 mm. The rainy season lasts from July to October and is dominated by a southwesterly monsoon which produces a period of the heaviest rainfall. The average temperatures in summer is 28.7 celsius

---

#### **17. Physical features of the catchment area:**

Describe the surface area, general geology and geomorphological features, general soil types, and climate (including climate type).

The catchment area lies within the site since the site encompasses the entire island of Ko Ro-Ko-Phra Thong. The site, Ko Ra - Ko Phra Thong islands and adjacent areas, lies off the west coast of Southern Thailand and is underlain by Quaternary bedrock. The majority of the wetlands are overlain by Quaternary sands and alluvial deposits. The sand deposits from the influence of wind and sea currents have resulted in coastal and alluvial plains and channels, forming a complex network of canals and wetlands ecosystems.

---

#### **18. Hydrological values:**

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

There is good connection between the site's inland freshwater wetland and the coastal brackish and saline ecosystems. The main channel between the site's two islands and the mainland is of great value to the local coastal villagers as fishery ground and transportation routes.

The six major surface water types in this area are shallow wells, dredging ponds, old mining pools, natural ponds, canals and peat swamps. These act as water reservoirs, and are important for sediment trapping and flood control.

Moreover, there are many groundwater sources under the site because of the presence of a clay bed under the site, hard pans, thus the site is important for groundwater recharge.

Seagrass beds, coral reefs, mangrove areas, tidal flats are important for nutrient retention and export, climate change modification, sediment trapping and shoreline stabilization.

---

#### **19. Wetland Types**

**a) presence:**

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

Marine/coastal: **A** • **B** • **C** • **D** • **E** • **F** • **G** • **H** • **I** • J • K • Zk(a)  
Inland: L • **M** • **N** • O • P • Q • R • **Sp** • Ss • Tp • **Ts** • U • Va •  
Vt • W • Xf • Xp • Y • Zg • Zk(b)  
Man-made: 1 • **2** • 3 • 4 • 5 • 6 • 7 • 8 • 9 • Zk(c)

**b) dominance:**

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

The dominance wetlands of the sites include marine waters A mangrove forests I peat swamp forests Xp Beach forest sea-grass beds B coral reefs C and Streams. (Permanent and seasonal streams)

---

**20. General ecological features:**

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

The major wetland habitat and vegetation types are:

- 1. Mangrove / intertidal forest** along the coastline and estuary. The dominant species are *Rhizophora mucronata* (Lamk.) and *Avicennia officinalis* L.
- 2. Grassland**, approximately 13 km<sup>2</sup>, lies along the western side of Koh Phra Thong. The dominant species are *Holarrhena antidysenterica* (L.) Wall.ex A.DC., *Melastoma malbotheticum* (L.), *Catunaregam longispina* (Roxb.ex Link) Tirveng, *Melaleuca cajuputi* (Myrtaceae), along with other grasses and herbs.
- 3. Forested peatlands (peats swamp forest)** which is evergreen forest of a specific structure and diversity of plant species. There are three types of peat swamp forest in this site: 1) primary swamp forest 2) secondary swamp forest and 3) swamp forest in old mining pools. The dominant species are *Eleiodoxa conferta*, *Licuala Longecalyculata*, *Horsfieldia crassifolia*, *Pinanga riparia*, and *Melaleuca cajuputi* (Myrtaceae).
- 4. Beach Forest** which covers the sand bar along the coastline. It plays a critical role in maintaining the coastline and is often neglected, not being considered an important ecosystem. The dominant vegetation is *Casuarina equisetifolia*.
- 5. Sea-grass beds** which are shallow to moderate depth, in a narrow strip along the mouth of channel and adjacent to the mangrove area. There are eight seagrass species, as follows: *Halophila ovalis*, *Halophila beccarir*, *Halophila decipiens*, *Halophila minor*, *Haloduleu ninervis*, *Haloduleu pinifolla*, *Enlalus acoroides*, and *Thalassia hemprichii*.
- 6. Coral reefs** are scattered around the small island which lies northwest of Ko Phra Thong. The dominant species are *Porites* sp., *Favis* sp., and *Acropora Formosa*. (Staghorn coral)
- 7. Freshwater** ponds which were formed by old mining pools, often small and shallow. The dominant vegetation types are grasses and herbs.

---

**21. Noteworthy flora:**

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14, Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

351 have been found in this wetland

#### Orchids

There are at least 54 species in the site and 28 species waiting for scientific identification. The dominant species is *Dendrobium cruntum* which is in appendix I of CITES.

#### Mangrove forest plant

There are 40 species in the site. The dominant species are *Rhizophora mucronata* (Lamk.) and *Avicennia officinalis* L.

#### Swamp forest plant and Terrestrial forest plant

At least 201 species of swamp and terrestrial plants. The dominant species are *Eleiodoxa conferta*, *Licuala Longecalyculata*, *Horsfieldia crassifolia*, *Pinanga riparia*, and *Melaleuca cajuputi* (Myrtaceae)

#### Sea-grass beds

There are 10 species in the site. The dominant species is *Halophila ovalis*

---

## 22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

There are 556 animal species that have been found in this wetland.

#### Mammals

There are 21 mammal species with 15 terrestrial species and 6 coastal species. A group of dugong is also found in the site. Important mammal species are Sambar deer (*Cervus unicolor*), Sunda pangolin (*Manis javanica*), Dugong (*Dugong dugon*) and Indian Ocean bottlenose dolphin (*Tursiops aduncus*) etc.

#### Birds

At least 138 bird species. Three globally near-threatened species: Cinnamon-headed Green Pigeon (*Treron fulvicollis*), Grey-headed Fish Eagle (*Ichthyophaga ichthyæetus*) and White-chested Babbler (*Trichastoma rostratum*). A fourth globally near-threatened species, Malaysian Plover (*Charadrius peronii*), has also been recorded at the site but not in significant numbers. In addition, the site supports populations of a number of nationally threatened species, such as Brahminy Kite (*Haliastur Indus*), Orange-breasted Pigeon (*Treron bicinctus*) and White-bellied Woodpecker (*Dryocopus javensis*). The site qualifies under criterion from IBA-A3 because it supports one species (Pale-capped Pigeon) which is restricted to the Indochinese tropical moist forests (Biome 09) and two species (Cinnamon-headed Green Pigeon and White-chested Babbler) restricted to Sudanic lowland forests (Biome 14).

#### Reptiles

There are 44 reptilian species such as Mangrove Snake (*Boiga dendrophila*), Green Cat Snake (*Boiga cyanea*), Common Tree Snake (*Dendrelaphis punctulata*), Copper-headed Racer (*Elaphe radiata*), Green Turtle (*Chelonia mydas*), Hawksbill Turtle (*Eretmochelys imbricata*) and Olive Ridley Turtle (*Lepidochelys olivacea*) etc.

#### Fishes



At least 135 fish species are found in marine environment. Most of them are in the Order Perciformes which are economically important, such as Giant Perch (*Lates calcarifer*), Red Snapper (*Lutjanus argentimaculatus*), and Striped Snake-head fish (*Channa striata*). There are at least 7 orders, 13 families and 20 species of freshwater fishes found in the area. The most common group is in the family *Belontiidae*.

---

**23. Social and cultural values:**

a) Describe if the site has any general social and/or cultural values e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values:

There are four local communities with 1,064 people (2004) surrounding Ko Phra Thong; Ban Thung Dab, Ban Pae Yoay, Ban Koa Ra, and Ban Pak Jok. Most of them are coastal capture fishing communities. Most of the people are fishermen.

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning?

If Yes, tick the box  and describe this importance under one or more of the following categories:

- i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:
  - ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
  - iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
  - iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:
- 

**24. Land tenure/ownership:**

a) within the Ramsar site:

Public land and reclaimed owned land by locals and outsiders for cash crop farming, tourism businesses

b) in the surrounding area:

The surround coastline on the mainland is entirely covered with mangrove forests and without any private land ownership.

---

**25. Current land (including water) use:**

a) within the Ramsar site:

Small villages, cash crops (oil palm), orchards (coconut, fruits), tourism business., fishing Aquaculture

b) in the surroundings/catchment:

Coastal fishery

---

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

a) within the Ramsar site:

The main threats to biodiversity at the site are the collection of Lesser Adjutant nestlings (for food) and unsustainable tourism development. Disturbance resulting from increasing tourism has recently caused the Lesser Adjutants to leave their nests. In addition, tourism developments are encroaching into natural habitats at the site.

Public land encroachment and land reclamation of Ko Phra Thong by locals and outsiders make it very difficult for conservation, monitoring and area demarcation.

b) in the surrounding area:

Over-fishing and the use of destructive fishing methods have been identified as the main threat to marine habitats particularly coral reefs and seagrass beds, as well as to rare and endangered marine wildlife like dolphins, dugongs and sea turtles. Forest encroachment and illegal harvest of timber and non-timber products were found to be the major threat to mangrove forests on the surrounded coastline.

In 2004, the tsunami caused habitat alteration of freshwater peat swamp forests by seawater intrusion, and spread of exotic weeds from the mainland. The tsunami also caused significant coastal erosion, but some areas have recovered recently.

---

### 27. Conservation measures taken:

a) List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar site:

In particular, if the site is partly or wholly a World Heritage Site and/or a UNESCO Biosphere Reserve, please give the names of the site under these designations.

Designation of National park was opposed from local people so Department of National Park, Wildlife and Plant Conservation changed proposal to designate as a non hunting area. The designation process is not yet complete. At present this site is not legally protected areas

b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):

Ia ; Ib ; II ; III ; IV ; V ; VI

c) Does an officially approved management plan exist; and is it being implemented?

Department for Marine and Coastal Resources (DMCR) formulated an action plan for the sustainable development of Ko Ra – Ko Pra Thong in 2006. The DMCR action plan of 2006 is currently being partially implemented.

d) Describe any other current management practices:

The sub-district administration of Ko Pra Thong is currently responsible for managing natural resources on both islands with participation of local communities on the islands, including organizing locally operated surveillance of marine resources. ( the Green Turtle (*Chelonia mydas*), Oliver Ridley Turtle (*Lepidochelys olivacea*) and Leatherbacked Turtle (*Dermochelys coriacea*) and for the critically endangered Dugong (*Dugong dugon*) etc.)

---

### 28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

The Department of National Park, Wildlife and Plant Conservation is proposing enlistment of one of the islands, Ko Phra Thong, as a Non Hunting area is in process.

---

### **29. Current scientific research and facilities:**

e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

An ongoing study on rare marine species of the islands has been carried out by Phuket Marine Biological Center which operated under Department for Marine and Coastal Resources (DMCR) since 2003. The Center also published a book on ecosystems and biodiversity of Ko Pra Thong in 2008.

---

### **30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:**

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

A tourist service centre was established and operated by the sub-district administration on Ko Pra Thong in order to provide education and interpretation services to visitors. And promote natural conservation by local participation. Organization related to education and public awareness (CEPA) activities include: Department for Marine and Coastal Resources (DMCR) and Local Government

---

### **31. Current recreation and tourism:**

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Recreation activities on the islands include diving, camping, hiking, bird/wildlife-watching and natural studies. According to The Department of National Park, Wildlife and Plant Conservation is record, both islands accommodated at total of 983 visitors in the year 2010.

---

### **32. Jurisdiction:**

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept of Agriculture/Dept. of Environment, etc.

Territorial Jurisdiction : The sub-district administration of Ko Pra Thong.

Functional Jurisdiction :Governor of the sub-district administration of Ko Pra Thong

---

### **33. Management authority:**

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

The sub-district administration of Ko Pra Thong located at Mu 2, Ko Pra Thong sub-district, Kuraburi District, Phang Nga Province, Southern Thailand by the Mayor of Tambon Authority Organization that has authority to conduct all administrative issue in the district. The new election of new Mayer will conduct every four years. So we cannot define by name. Tel. (+667) 6491 971

Email : Mrs. Nirawan : Nirawanfang@gmail.com

---

### **34. Bibliographical references:**

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

- Birds Conservation Society of Thailand, 2004. Directory of Important Bird Areas in the Kingdom of Thailand: Key sites for conservation. Bangkok: Birds Conservation Society of Thailand and Birdlife International.
- Faculty of Environment and Resources Studies, 2005. Effect of the Tsunami on the Pra Tong Island Ecosystem. Nakorn Prathom: Mahidol University.
- Office of Natural Resources and Environmental Policy and Planning (ONEP), 2007. Thailand Red Data : Vertebrates. Ministry of Natural Resources and Environment. Bangkok.
- Nabhitabhata, J. & Chan-ard, 2005. Thailand Red Data: Mammals, reptiles and amphibians. Office of Natural Resources and Environmental Planning, Bureau of Biodiversity.
- Sagnuansombat, W. 2005. Thailand Red Data: Birds. Office of Natural Resources and Environmental Planning, Bureau of Biodiversity.
- Vidthayanon, C. 2005. Thailand Red Data: Fishes. Office of Natural Resources and Environmental Planning, Bureau of Biodiversity.
- Worraluxr Sriyai (Editor) 2005. The Research Study on Koa Ra-Koa Pra Thong. Seub Nakhasathien Foundation.
-