

Site Nomination for Peat Site Profiles in Southeast Asia	
Category:	Protected Area
Name of Site:	Phru Ban Mai Khao
Country:	Thailand
GPS Point:	Latitude: 8° 07' – 08' Longitude: 98° 18' – 20'
Location & Access:	Mu 3 and 4, Mai Khao sub-district, Thalang district, Phuket province
Total Area:	40.32 hectare(s)
Background of Site:	<p>Phru Ban Mai Khao (Ban Mai Khao peat swamp forest) is located landward of sandy beaches on the western coastline of Phuket island. The area was originally a large swamp, but is now separated into 10 distinct small patches by construction, development and encroachment. Some swamps, such as Phru Pet Nam, Phru Tub Kheoy and PhruYai Rat, are no longer considered as swamp as PhruYai Rat has dried out, believed to be result of encroachment. Others such as Phru Thung Tien, Phru Yang and Phru Jaei San have been converted into freshwater ponds. Those that still have characteristics of swamp include Phru Lang Wat Mai Khao (behind Mai khao Temple), Phru Juud, Phru Laem Yud, Phru Jik and Phru Ban Mai Khao. The area is the last remaining swamp of Phuket province.</p> <ul style="list-style-type: none"> • The permanent swamp located behind Mai Khao temple is in good condition, despite the fact that its size has been greatly reduced. The swamp covers an area of approximately 0.056 square kilometers (35 rai), and consist of natural reservoir and some swamp forests and grassland. Local villagers collect wild plants and fish from the swamp. Mai Khao temple has attempted to maintain the area. The swamp is, however, under threat from shrimp farming which intentionally or unintentionally discharges seawater into the swamp. • PhruJuud is located behind Ban Mai Khao school. The swamp covers an area of roughly 0.2512 square kilometers (157 rai). A 60x20x4.5 meters pond with a capacity of 5,400 cubic meters has been constructed in the area by the Office of Rural Development Acceleration. Approximately 0.112 square kilometers (70 rai) of forests are in good condition. There are also natural ponds and reed swamps, surrounded by privately owned lands. The swamp is used by local villagers for collecting wild plants and fishing. • Phru Yao originally covered an area of approximately 0.0656 square kilometers (over 41 rai). The swamp has lately been converted into a large water reservoir to provide a water supply for nearby villages. However, the water reservoir has never been used and the vegetation still remains. • Phru Laem Yud is a small swamp of approximately 0.016 square kilometers (10 rai), located next to Phru Yao pond. The pond is used for local water supply. The swamp is relatively dry and populated with Melalueca in the rainy season. There are eucalyptus plantations in the surrounding areas. The swamp originally covered an area of over 0.072 square kilometers (45 rai). It is approximately 0.1232 square kilometers (77 rai). • Phu Jik is a swamp forest which is still in good condition. The swamp consists of a large pond with tall grass, many aquatic plant species and a considerable diversity of plant and animal species. The swamp is used by local villagers for fishing and collecting wild plants such as reed and other plant species. The sub-district administration has proposed the construction of a water gate to provide drainage to the sea and hence protect the surrounding area from flooding. The administration also proposed the construction of a freshwater pond to supply water for consumption and agriculture. Both of the proposals have been suspended, however the surrounding areas of the swamp are mostly private lands owned by the residents. <p>These swamps receive rainwater all year round. The water in the swamp is acidic, but is within standards for consumption.</p>
Significant Value of Site:	<ul style="list-style-type: none"> - Soil/Carbon - Socio-economic <p>Notes:</p> <ul style="list-style-type: none"> -Soil: The area is also of ecological importance by regulating flooding, controlling climate and maintaining soil fertility. -Socio-economic: The swamp is the source of food, herbs, timber, fuel-wood, fishes and water for rice cultivation and farming.
Designated use (status/legal classification):	<ul style="list-style-type: none"> - Watershed/Water Catchment <p>Notes:</p>

	<ul style="list-style-type: none"> • Most of PhruThungTien has been converted into a freshwater pond of 70x120x3.5 meter dimensions and with a capacity of 34,275 cubic meters. The pond, which was completed on December 28, 1990, was constructed by the Office of Rural Development Acceleration and is aimed to provide water supply for agricultural lands. A pocket of vegetation, covering an area of approximately 0.0072 square kilometers (4.5 rai) can be found next to the dried-out swamp area. The pocket consists of dense swamp forest with some shrubs and grassland, and is connected to a coconut plantation and sand dunes on the shoreline. Information retrieved from interviews by local people indicates that the swamp is rarely used except for cattle which are found consuming the water. • Phru Jaei San is located at the upstream of all other swamps in the area. The swamp originally covers an area of over 0.32 square kilometers (200 rai), but has now been reduced to approximately 0.072 square kilometer (45 rai). The surrounding areas of the swamp are privately owned by large-scale investors. The swamp itself is however, certified public land. In 1989, the provincial authority used the special Kor Sor Chor budget of 1,200,000 Baht to build 10 meter wide dykes to encircle the swamp. The swamp was later dredged by the Office of Rural Development Acceleration, to create a pond with a capacity of 669,130 cubic meters. The pond was completed on June 28, 1994. These development projects have all contributed to a reduction of diversity of plant species. The water area of the swamp has however been increased by the projects. There was a plan to build recreation areas and develop the swamp into a tourist site. However, the targeted areas are privately owned.
Major Issues:	One of the coastal peat swamps in Phuket province, Phru Ban Mai-Khao, has been fragmented into several small swamps, due to natural succession and human activities. Some of the small fragment area of Phru Ban Mai-khao which is the permanent swamp located behind Mai Khao temple is in under threat from shrimp farming which intentionally or unintentionally discharges seawater into the swamp.
Site Jurisdiction & Administration:	Sub-district Administration Organization, Ministry of Interior
Peatland Type:	Lowland
Management activities:	<p>a) Past</p> <p>b) Current Some parts of the swamp forest are reserved forests, while the remaining are generally public lands. The surrounding areas are privately owned.</p> <p>The area is also of ecological importance by regulating flooding, controlling climate and maintaining soil fertility.</p> <p>The swamp is the source of food, herbs, timber, fuel-wood, fishes and water for rice cultivation and farming.</p> <p>c) Potential</p>
Facilities & Activities Available on Site:	
Institution Responsible for the Site:	<p>Name of Organization: Mai Khao Sub-district Administration Organization</p> <p>Postal Address: 100 Moo 5, Thape Ka Satri Road, Mail Khao Sub-district, Thalang district, Phuket Province 83110</p> <p>Phone: +667-634-8201</p> <p>Fax: +667-634-8201</p> <p>Website: http://www.maikhaow.go.th</p>
Nominated by:	<p>Name: Ms. Tippawan Sethapun</p> <p>Organization: Department of National Park, Wildlife and Plant Conservation</p>