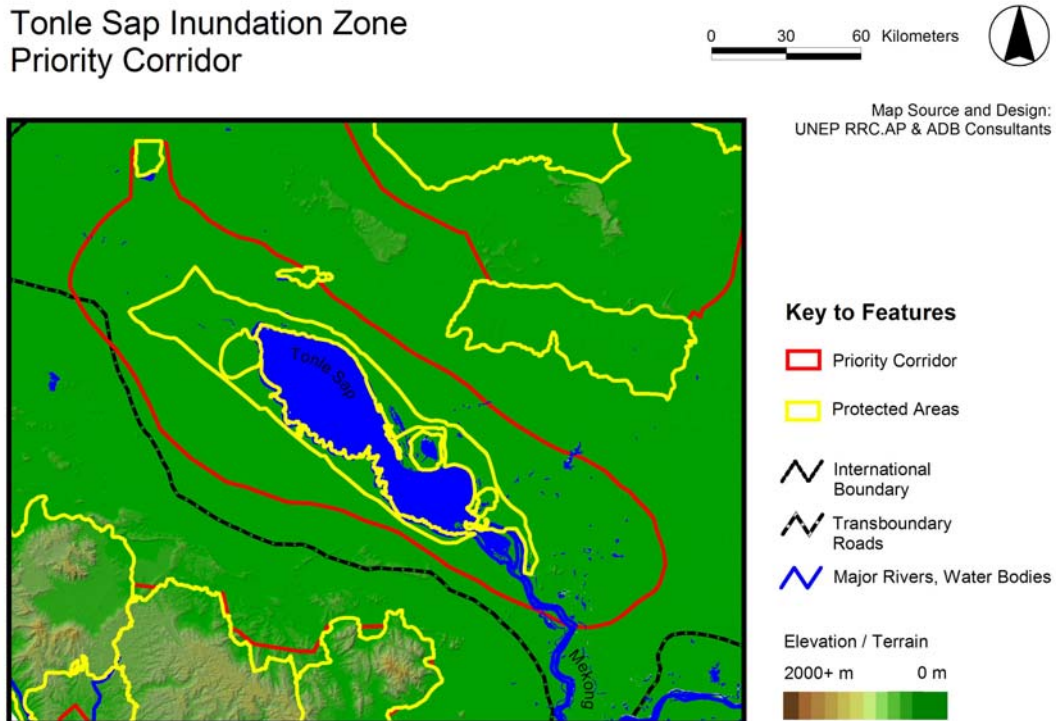


## ANNEX 3.2: Description of GMS Priority Biodiversity Conservation Corridors

### Tonle Sap Inundation Zone (Cambodia)

Figure 1: Ton Le Sap inundation Zone



### Tonle Sap Lake and Inundation Zone

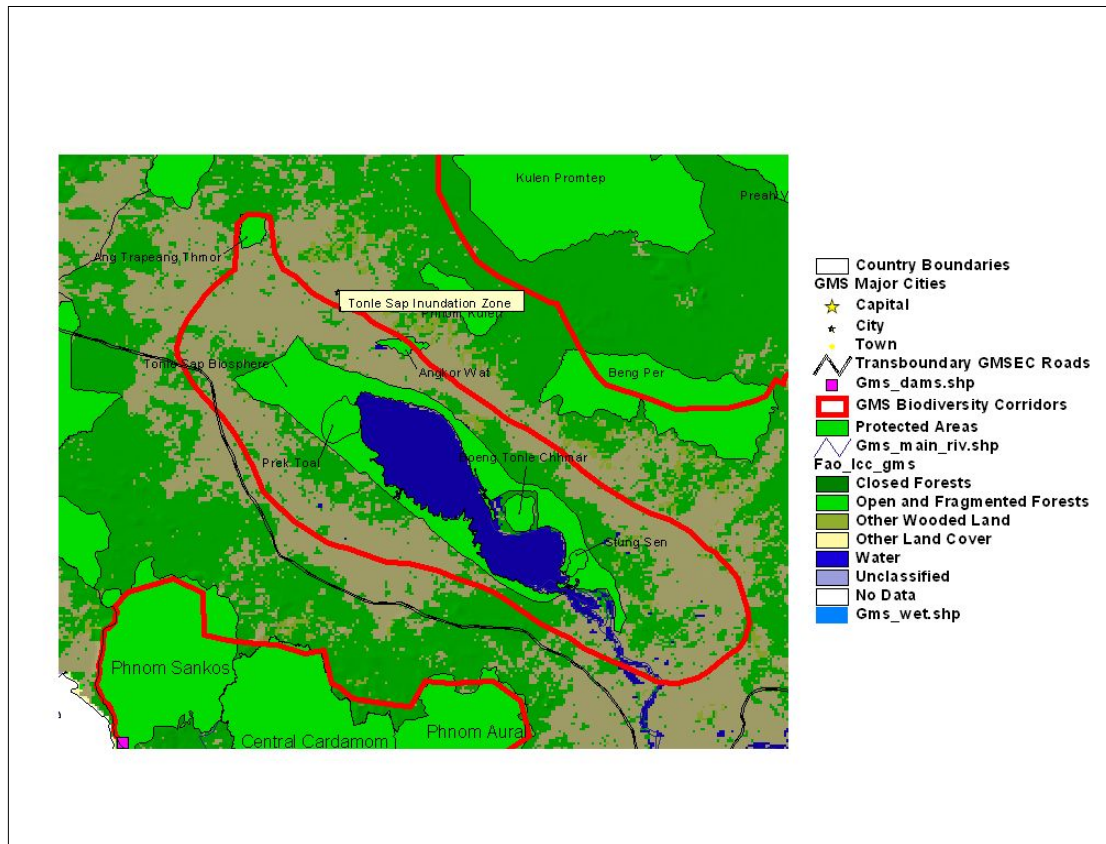
**Country:** Cambodia

**Provinces/Districts:** Siem Reap, Banteay Mean Chey, Bat Dambang, Pousat, Kampong Chhnang, and Kampong Thum

This GMSBCC primarily represents the Tonle Sap Freshwater Swamp Forests ecoregion. It covers the seasonal inundation zone surrounding the Tonle Sap Lake, which is the largest freshwater body in Southeast Asia. During the August to January wet season, the water from the Mekong River flows into the Tonle Sap, raising its water level and flooding the surrounding forests.

The GMSBCC is characterized by two forest associations; a shrubland with short-stature trees that covers most of the area and a stunted swamp forest immediately around the lake. The structure, composition, and even the phenology of the floodplain vegetation are influenced by the seasonal flood dynamics. For instance, some trees fruit and set seed at the time of submergence, suggesting that fish may serve as important dispersal agents. The shrub and forest lands are interspersed with areas of grasslands, marshlands, and permanent pools, especially in the Khomphong Thom and Khomphong Chhnang, to create a landscape mosaic.

**Figure 2: The Tonle Sap Lake and Inundation Zone GMSBCC, showing the protected areas, major transnational roads, dams, and remaining forest cover**



There are six IUCN protected areas within the landscape. The large Tonle Sap Biosphere reserve encompasses three--Boeng Tonle Chhamar, Stung Sen, and Prek Toel—within it as specific management areas within the large Biosphere Reserve (Baltzer *et al.* 2001). The other two, Angkor Wat and Ang Trapeang, are isolated (see Figure above).

Although there are no known birds or mammals that are endemic to the landscape, it is considered to represent one of the most complete and richest wetland ecosystems in the GMS, and is a conservation priority in this regard (Baltzer *et al.* 2001, CEPF 2004).

Some of the Globally Threatened species in this wetland ecosystem include the Greater Adjutant, White-shouldered Ibis, Bengal Florican, Milky Stork, Spot-billed Pelican, Lesser Adjutant, and Greater Spotted Eagle (Baltzer *et al.* 2001). It is possible that populations of the Globally Threatened Siamese Crocodile occurs here. Other species of conservation significance include the Globally Threatened Hairy-nosed Otter, Sarus Crane (seasonally), and Black-headed Ibis.

In addition to these species, this GMSBCC is important because of the ecosystem process and services it provides. The seasonal inundation is important for spawning of several species of fishes, and the high fish productivity contributes to Cambodia's food security and to the hydrological regime of the Mekong River system (Baltzer *et al.* 2001, SEF 2002<sup>1</sup>).

<sup>1</sup> SEF 2002. Vol III

### ***Key Conservation Issues and Threats to Biodiversity***

Habitat clearing and conversion for agriculture is a significant conservation issue. Increased use of fertilizers and the runoff into the lake and tributaries has adverse effects on the fish and the people who live there. Trees are cut to make fishing gear, including drift fences and fish traps. Fishing pressure is high because of intensive, and even illegal, methods. Depletion of fish stocks can not only deplete fish populations, but also have cascading effects throughout the trophic structure of the ecosystem.

Hunting of waterbirds, mammals, and reptiles is common. Hunting practices include shooting, trapping, and even capture of birds, turtles, and snakes with hook and line, (Baltzer *et al.* 2001).

### ***Impacts of the GMSEC***

The main artery of the Bangkok-Phnom Penh Highway skirts the landscape to the south, but its zone of influence extends deep into the core zone (see Figure above). However the northern arm of the road cuts through the length of the landscape.

Although no dams are planned within this GMSBCC, the dams elsewhere in the Mekong River basin could change the hydrologic relationship with the Tonle Sap (SEF 2002).