



Panel 1: Ecosystems Connectivity and Biodiversity

Current status of biodiversity in the
GMS countries, with a particular
focus on the pilot sites of the
Biodiversity Conservation
Corridors Initiative

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Current status of biodiversity in the GMS



The GMS is a region of extremely high significance for biodiversity conservation:

- it lies almost entirely within Biodiversity Hotspots (CI 2004);
- it supports over 500 globally threatened species (IUCN 2004);
- the products and services provided by its natural ecosystems support the livelihoods of millions of people.

Current status of biodiversity in the GMS



The complex geological and evolutionary history of the GMS has enabled the development of a wide diversity of natural habitats.

The fauna and flora of northern and montane areas have strong Sino-Himalayan influences.

Peninsular Thailand and southern Myanmar have strong Sundaic influences.

Current status of biodiversity in the GMS



The biota of the GMS also has a significant endemic element.

Endemic species are concentrated on montane isolates, in limestone karst formations and in lowland wet evergreen forests.

Centres of endemism include:

- Annamite Mountains;
- Cardamom and Elephant Mountains;
- limestone ranges.

Current status of biodiversity in the GMS



Natural habitats, particularly in lowlands, have been extensively cleared, to make way for agriculture, human habitation and industry.

In some areas, remaining natural habitats have been heavily fragmented and typically persist as isolated patches.

In other areas, large, continuous landscapes of natural habitat remain, and retain the potential to support full biotic communities, including megafauna species such as Tiger, Asian Elephant and Gaur.

Current status of biodiversity in the GMS



Population expansion, economic growth and increasing consumption are causing loss and degradation of natural habitats.

These threats are compounded by exploitation of plant and animal species, driven in many cases by demand from the rapacious wildlife trade.

As a result, many species in the GMS are threatened with global extinction.

Current status of biodiversity in the GMS

Population estimates for selected globally threatened species in Vietnam

Species	Status	Popn.
Delacour's Leaf Monkey*	CR	<500
Cat Ba Leaf Monkey*	CR	<100
Tonkin Snub-nosed Monkey*	CR	<500
Lesser One-horned Rhinoceros	CR	<10
Asian Elephant	EN	<100
Taiwania	VU	c.100
Golden Vietnamese Cypress*	CR	c.500



Current status of biodiversity in the GMS



Effective measures are urgently required if the GMS is to avoid a wave of species extinctions and an accompanying decline in the ecosystems whose products and services underpin sustainable economic development in the region.

Options for monitoring the status of biodiversity in the BCI pilot sites



Seven pilot sites have been identified for implementation of site-level activities during the first phase (2006-2008) of the BCI.

For all sites, it will be possible to monitor large-scale changes in condition and extent of natural habitats by means of remote sensing data, supported by ground truthing.

Site-level monitoring will also be required to detect trends in population densities of animal and plant species, resulting from exploitation, disturbance, habitat degradation, etc.

Options for monitoring the status of biodiversity in the BCI pilot sites



At each site, it will be necessary to monitor the populations of a suite of indicator species, which:

- respond to pressures in a similar fashion to other species of conservation concern;
- can be monitored with low to moderate resources, ideally, by local stakeholders;
- are expected to undergo measurable change over a 10-year period.

Options for monitoring the status of biodiversity in the BCI pilot sites



Potential indicator species for the Cardamom Mountains Pilot Site include:

- Pileated Gibbon (VU; endemic to the GMS);
- Asian Elephant (EN);
- Chestnut-headed Partridge (VU; endemic to the GMS);
- Siamese Crocodile (CR; endemic to the GMS).

Options for monitoring the status of biodiversity in the BCI pilot sites



Potential indicator species for the Eastern Plains Pilot Site include:

- Asian Elephant (EN);
- Banteng (EN);
- Eld's Deer (VU);
- Green Peafowl (VU);
- Giant Ibis (CR; endemic to the GMS).

Options for monitoring the status of biodiversity in the BCI pilot sites



Potential indicator species for the Khao Yai-Thab Lan Pilot Site include:

- White-handed Gibbon (NT);
- Pileated Gibbon (EN, endemic to the GMS);
- Asian Elephant (EN);
- Gaur (VU);
- large carnivores, particularly Tiger (EN);
- hornbills, particularly Great Hornbill (NT).

Options for monitoring the status of biodiversity in the BCI pilot sites



Potential indicator species for the Ngoc Linh-Xe Sap Pilot Site include:

- White-cheeked Crested Gibbon (DD; endemic to the GMS);
- Red-shanked Douc (EN; endemic to the GMS);
- Crested Argus (VU).

Options for monitoring the status of biodiversity in the BCI pilot sites



Potential indicator species for the Tenasserim Pilot Site include:

- White-handed Gibbon (NT);
- Asian Elephant (EN);
- Gaur (VU);
- large carnivores, particularly Tiger (EN);
- hornbills, particularly Great Hornbill (NT).

Options for monitoring the status of biodiversity in the BCI pilot sites



Potential indicator species for the Xe Pian-Dong Hua Sao-Dong Ampham Pilot Site include:

- Yellow-cheeked Crested Gibbon (VU; endemic to the GMS);
- Asian Elephant (EN);
- large carnivores, particularly Tiger (EN);
- hornbills, particularly Great Hornbill (NT).

Options for monitoring the status of biodiversity in the BCI pilot sites



Potential indicator species for the Xishuangbanna Pilot Site include:

- Asian Elephant (EN);
- Green Peafowl (VU);
- Rufous-necked Hornbill (VU).