

The Indo-Burma Hotspot

Ecosystem Profile Summary





Cover photos left to right:
Fishing in Pauk Inn wetlands, Myanmar. © SEI/Wichai Juntavaro
Ban Tha, Laos. © O. Langrand

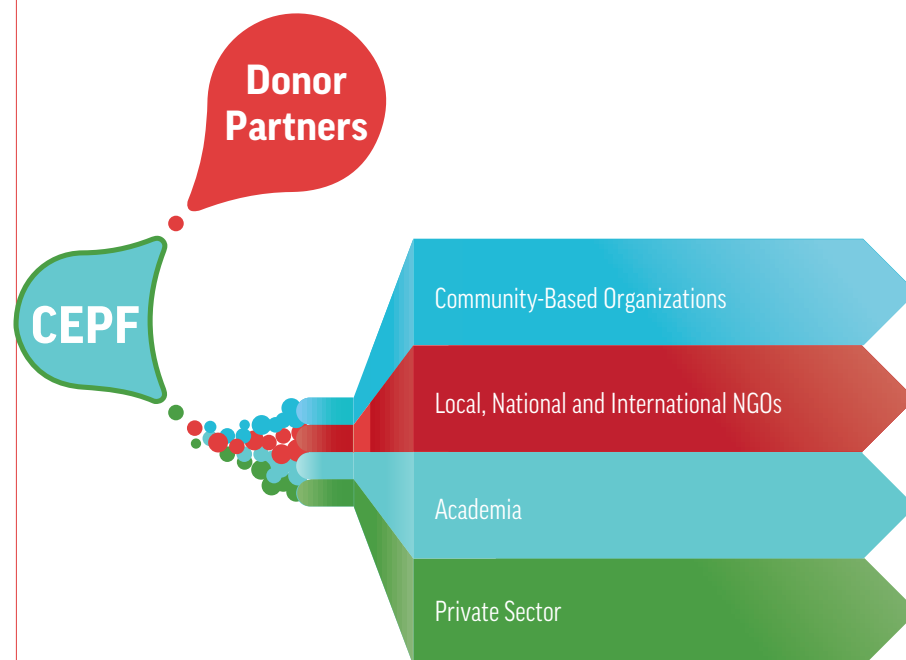
^ Critically Endangered Southern River terrapin (*Batagur affinis*). © Thida Leiper

About CEPF

Established in 2000, the Critical Ecosystem Partnership Fund (CEPF) is a joint initiative of l'Agence Française de Développement, Conservation International, the European Union, the Global Environment Facility, the Government of Japan and the World Bank.

CEPF brings together global institutional donors and civil society organizations working in the world's biodiversity hotspots to protect the biological diversity humanity depends on. Together, we strengthen local conservation leadership and implement strategies to safeguard some of the most important ecosystems for the future of life on Earth.

How CEPF Works



The Hotspot

With a population of 350 million, Indo-Burma holds more people than any of the other 35 biodiversity hotspots. It is also, arguably, the most threatened.

In the last decade, rapid and increasingly large-scale development has had substantial impacts on the region's environment and its natural resource-dependent communities. This growth has brought much of the population out of poverty and seen many of the cities transformed into major metropolises. Most countries have seen an increase in the road network, opening up previously remote areas. Market economies have become more established and agricultural economies have tended toward cash crops.

CEPF has now completed two phases of investment in the Indo-Burma Hotspot, engaging more than 100 civil society organizations, ranging from community groups to big international NGOs.

The second phase, which ran for seven years from 2013 to 2020, was the largest CEPF investment in any hotspot to date. A record 187 grants were awarded, of which more than two-thirds went to local civil society organizations.

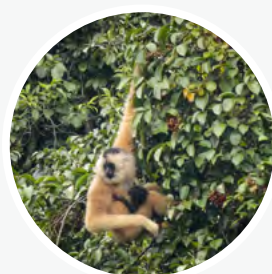
Long-term conservation programs were put in place for core populations of 31 priority species. Initiatives to reduce wildlife trafficking across international borders resulted in intelligence-led seizures of major shipments of ivory,

pangolin scales and other illegally traded products, and public commitments by private companies of zero tolerance towards illegal wildlife trade. Protection and management of biodiversity was strengthened at 55 Key Biodiversity Areas (KBAs): sites that contribute significantly to the global persistence of biodiversity. Community-based conservation models were piloted at 16 KBAs, including community forests, community fisheries and community-managed protected areas. Tangible wellbeing benefits were received by 162 local communities, including improved land tenure, food security and access to ecosystem services.



The Indo-Burma Hotspot map

Biological Importance of the Hotspot



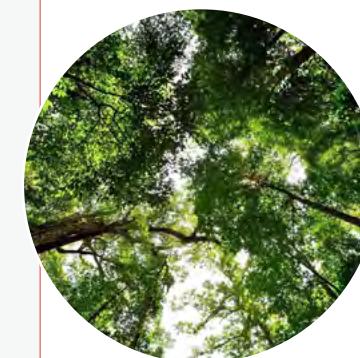
Cao Vit gibbon (*Nomascus nasutus*). © FFI/Ryan Deboodt

INDO-BURMA HOLDS
20 GLOBALLY
THREATENED
PRIMATE

SPECIES FOUND NOWHERE ELSE:
Cao Vit gibbon (*Nomascus nasutus*), Tonkin snub-nosed monkey (*Rhinopithecus avunculus*) and red-shanked douc langur (*Pygathrix nemaeus*) among them.



380
AMPHIBIAN
SPECIES are
known to occur
in the hotspot.



Khau Ca, Vietnam. © FFI

Preliminary estimates suggest that the **HOTSPOT MAY SUPPORT 15,000 TO 25,000 SPECIES OF VASCULAR PLANT**, including many endemic and threatened orchid and tree species.

100+
BIRD SPECIES
IN THE HOTSPOT ARE
CLASSIFIED AS
**GLOBALLY
THREATENED.**



Critically Endangered
Bengal florican (*Houbaropsis bengalensis*).
© Allan Michaud

**REPTILE SPECIES
IN THE HOTSPOT ARE BEING
DISCOVERED AT
A RAPID PACE.**



For example, 35 species of *Cyrtodactylus* gecko have been recorded in Vietnam since 1997.

**MORE THAN
HALF
ARE FOUND NOWHERE ELSE.**



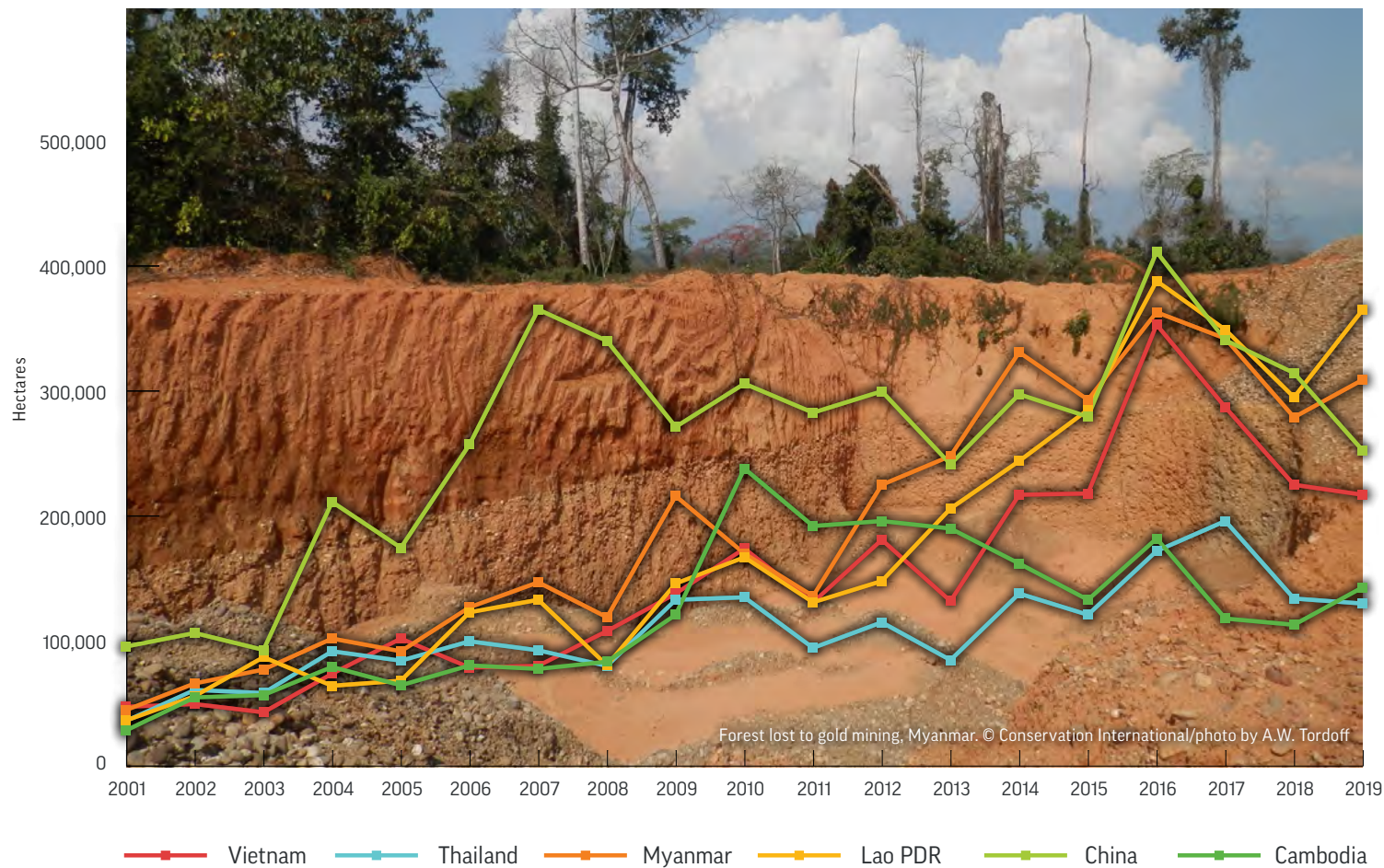
AT LEAST
1,440 SPECIES OF FISH
ARE FOUND HERE.

The Mekong giant catfish (*Pangasianodon gigas*) is perhaps the best-known globally threatened fish in the hotspot. A century ago, the species could be found in the Mekong River in abundance. Today, the species is at risk of extinction.



Endangered pileated gibbon (*Hylobates pileatus*) rescued from wildlife trade. © Conservation International/photo by Emilie Verdon

ANNUAL TREE COVER LOSS BY COUNTRY



Threats

Based on the proportion of original habitat remaining, Indo-Burma is the most threatened of the 36 hotspots.

Annual forest loss has increased in all six of the hotspot countries since 2001, with commercial timber extraction and industrial agriculture the primary drivers.

Populations of many species in the hotspot are plummeting due to poaching, the wildlife trade and bushmeat.

While climate change has, to date, had only a modest

negative impact on the hotspot, it has the potential to become one of—if not the most—severe threat in the coming decades.

Since the 2011 update of the ecosystem profile, rapid and increasingly large-scale development, based significantly on exploitation of natural resources, has had substantial impacts on the region's environment and its natural resource-dependent communities.



A highway cuts through the Mahamyaing Forest area. © SEI/Wichai Juntavaro

Previous CEPF Investment

Key Results

A SEVEN-YEAR INVESTMENT in the Indo-Burma Biodiversity Hotspot concluded in 2020 with a total of **US\$15.4 MILLION**

IN FUNDING TO

189 PROJECTS.



Long-term conservation programs established for core populations of **31 PRIORITY SPECIES.**



Five pilot models for **BIODIVERSITY-FRIENDLY PRODUCTION**

established, including **rice farming, medicinal plant collection and cement manufacture.**



Benefits gained by

162

local communities,

including improved land tenure, food security and access to ecosystem services such as **fresh water and food.**



24 alliances and networks

formed among civil society organizations.

5 initiatives to **reduce wildlife trafficking**

across country borders.

PROTECTION and MANAGEMENT strengthened for



1.4 MILLION HECTARES

—roughly the size of Montenegro—within

55 KEY BIODIVERSITY AREAS.



5 CEPF Grantee Successes

1.

GreenViet formed a network of champions who convinced local authorities to carry out an investigation into the tourism master plan for Vietnam's Son Tra Nature Reserve, which threatened to divert some 4,000 hectares of lowland forest to other uses. As a result of the campaign, the forest was put back under protection, and the number of planned resorts was massively scaled back, thereby reducing impact on the reserve's population of red-shanked douc langur (*Pygathrix nemaeus*), a Critically Endangered monkey species.



Red-shanked douc langurs, Vietnam. © GreenViet

2.

In Vietnam, PanNature developed a set of voluntary guidelines on mitigating socio-environmental risks that were adopted by five companies, including Vietnam Rubber Group, which manages more than 30% of the total area of rubber plantations in Cambodia, Lao PDR and Vietnam.



Hoang Anh Gia Lai, a Vietnamese-owned rubber concession in Cambodia. © Conservation International/photo by A.W. Tordoff

3.

Wetlands in China's Guangdong and Guangxi provinces are part of an important bird migration route, but illegal mist net hunting kills thousands each year. Waterbird populations have been collapsing, with many once-common birds added to the IUCN Red List of Threatened Species. The Hong Kong Birdwatching Society trained public groups to monitor bird populations and use satellite images to locate mist nets; nearly 200 illegal mist nets were confiscated.



Volunteers helping to eradicate an invasive cordgrass and removing rubbish on the mudflat in Leizhou, Guangdong, China. © Ye Zhi-ying

4.

Myanmar roofed turtles (*Batagur trivittata*) once dotted the shoreline of the Chindwin River. Today, due largely to egg overharvesting by the local people, the species is the second rarest turtle on Earth. With support from CEPF, the organization Turtle Survival Alliance and its partners established captive facilities where hatchlings could be "head started," or raised to a size large enough to be in less danger of being eaten by predators once in the wild. Post-release monitoring, which uses radio telemetry, indicates that survivorship of the head-started turtles is good.



Critically Endangered Myanmar roofed turtle. © Kalyar Platt

5.

Despite plummeting numbers, demand for Jullien's golden carp (*Probarbus jullieni*) in Lao PDR remains high. FISHBIO established four fish conservation zones (FCZs) in the Mekong River to protect the species' spawning and refuge areas, helping to allow the population to recover. Management of these FCZs is shared among several villages, and FISHBIO provided training to the community enforcement teams. These groups administer fines to those caught fishing in the protected areas and confiscate gill nets and illegal fishing gear.



FISHBIO staff member visits community member as part of FCZ survey. © FISHBIO

Developing the Ecosystem Profile

Before providing funding to a hotspot, CEPF develops an “ecosystem profile,” an assessment of the hotspot and strategy for CEPF’s investment. This work identifies threats, the current economic situation and conservation priorities.

The original ecosystem profile for Indo-Burma was developed in 2003 and set the stage for CEPF’s initial investment (2008 – 2013). The document was then updated in 2011 ahead of the second investment phase (2013 – 2020). More than 170 stakeholders were consulted to update the 2020 profile, which factored in lessons learned from the previous two investments as well as the ever-evolving threats to biodiversity in the hotspot. To read the complete ecosystem profile, visit cepf.net/indo-burma/profile.



Ecosystem profile consultation. © IUCN, photo by Ann Moey

CEPF Strategic Directions and Investment Priorities

1 **STRATEGIC DIRECTION**
Safeguard priority globally threatened species by mitigating major threats.

INVESTMENT PRIORITIES

- Sustain long-term conservation programs for core populations of priority species.
- Reestablish viable wild populations of priority species in line with global guidelines.
- Conduct research on globally threatened species for which there is a need for greatly improved information on status and distribution.
- Research and pilot innovative funding sources for species conservation.
- Support species champions at the community level to implement locally identified actions for priority species.

2 **STRATEGIC DIRECTION**
Mitigate zoonotic disease risks by reducing illegal trade and consumption of and threats to wildlife.

INVESTMENT PRIORITIES

- Support enforcement agencies to unravel high-level wildlife trade networks by promoting the application of global best practice with investigations, intelligence and informants.
- Facilitate collaboration among enforcement agencies involved in combatting illegal wildlife trade, as well as with other sectors as part of a One Health approach.
- Work with private and state-owned companies, with a particular focus on logistics and online platforms, to reduce their involvement in wildlife trafficking.
- Support targeted campaigns to reduce demand and mobilize public participation in detecting and reporting wildlife crime.
- Understand and support action to address linkages between biodiversity and human health, including the role of biodiversity loss in the emergence of zoonotic diseases.

3 **STRATEGIC DIRECTION**
Strengthen management effectiveness at protected areas as a tool to conserve priority sites.

INVESTMENT PRIORITIES

- Support the use of global standards and tools for protected area management by all stakeholders and embed in national policy.
- Develop accredited training programs for protected area practitioners within domestic academic institutions and other qualified bodies.
- Pilot the direct involvement of civil society organizations in protected area management and document best practice.
- Support the use of the results of global standards and tools for adaptive protected area management and budgeting.

4 **STRATEGIC DIRECTION**
Empower local communities to engage in conservation and management of priority sites.

INVESTMENT PRIORITIES

- Support communities to analyze conservation issues and inform them about rights and opportunities related to natural resource management and conservation.
- Pilot, amplify and develop sustainability mechanisms for community forests, community fisheries and community-managed protected areas through authentic, community-led processes.
- Develop co-management mechanisms for protected areas that enable community participation in zoning, management and governance.
- Revise Key Biodiversity Area identification in the hotspot using the new Key Biodiversity Area standard.
- Undertake third-party evaluation of project impacts in the priority sites.

5 **STRATEGIC DIRECTION**
Strengthen biodiversity conservation by promoting sustainable livelihoods and incentives for local communities at priority sites.

INVESTMENT PRIORITIES

- Promote sustainable livelihood projects that demonstrably link livelihood and socio-economic improvements to conservation outcomes at priority sites, and document and share practices and lessons.
- Develop and strengthen best-practice ecotourism initiatives at priority sites.

6 **STRATEGIC DIRECTION**
Demonstrate scalable approaches for integrating biodiversity and ecosystem services into development planning in the priority corridors.

INVESTMENT PRIORITIES

- Analyze development policies, plans and programs; evaluate their impact on biodiversity and ecosystem services; and propose and actively support the application of alternative development scenarios, nature-based solutions and mitigation measures.
- Develop demonstration projects for ecosystem restoration with protocols suitable for replication.
- Engage the media in order to increase awareness, inform public debate and influence decision-making on mainstreaming biodiversity into development planning.
- Pilot and scale-up models for biodiversity-friendly production, including certification and eco-labelling.

7 **STRATEGIC DIRECTION**
Minimize the social and environmental impacts of agro-industrial plantations and hydropower dams in the priority corridors.

INVESTMENT PRIORITIES

- Support land registration for local and Indigenous communities at priority sites.
- Upgrade the legal status of unprotected priority sites threatened by incompatible land uses.
- Strengthen the voices of communities who are potentially or actually affected by agro-industrial plantations and hydropower dams.
- Work with the private sector to ensure that agro-industrial plantations and hydropower dams are developed and operated in an environmentally and socially responsible manner.
- Identify water, food and energy nexus models and develop policy options.
- Support research and monitoring of the impacts of agro-industrial plantations and hydropower dams.

8 **STRATEGIC DIRECTION**
Strengthen the capacity of civil society to work on biodiversity, communities and livelihoods at regional, national, local and grassroots levels.

INVESTMENT PRIORITIES

- Support networking mechanisms that enable collective civil society responses to priority and emerging threats.
- Provide core support for the sustainable organizational and technical capacity development of domestic civil society organizations.
- Establish mechanisms to match volunteers to civil society organizations' training needs.

9

STRATEGIC DIRECTION

Conduct targeted education, training and awareness raising to build capacity and support for biodiversity conservation among all sections of society.

INVESTMENT PRIORITIES

- Invest in the professional development of future conservation leaders through support to vocational, certificate, diploma and graduate programs at domestic academic institutions, and promote regional replication to each country.
- Investigate the feasibility of establishing an Indo-Burma Conservation Field Studies Center.
- Foster leadership for sustainable development by investing in professional development of key individuals.
- Implement programs of experiential education to connect school children to nature in priority corridors and beyond.
- Conduct targeted, effective outreach and awareness raising for behavioral change among rural and urban populations in regard to the values of natural ecosystems, with a focus on livelihoods, consumption patterns and lifestyle.
- Conduct targeted training and awareness raising activities for decision-makers in government and the private sector on biodiversity conservation, including impacts of development policies and projects on ecosystems.

10

STRATEGIC DIRECTION

Evaluate the impacts of conservation investment on biodiversity and human well-being.

INVESTMENT PRIORITIES

- Develop common standards and systems for monitoring the impacts and effectiveness of conservation actions.
- Develop common standards and systems for monitoring the negative impacts of development policies, plans and actions across multiple scales.
- Support systematic efforts to build capacity for monitoring and data analysis among domestic organizations.
- Develop and test mechanisms for ensuring that monitoring results inform national policy debates and local adaptive management.

11

STRATEGIC DIRECTION

Provide strategic leadership and effective coordination of conservation investment through a regional implementation team.

INVESTMENT PRIORITIES

- Build a broad constituency of civil society groups working across institutional and political boundaries towards achieving the shared conservation goals described in the ecosystem profile.

Note: The investment strategy is intended to inform investments by conservation funders in the Indo-Burma Hotspot. Within the overall strategy, Strategic Directions 1, 2, 4, 6, 8 and 11 are currently eligible for CEPF support.

Priority Sites and Corridors for CEPF Investment



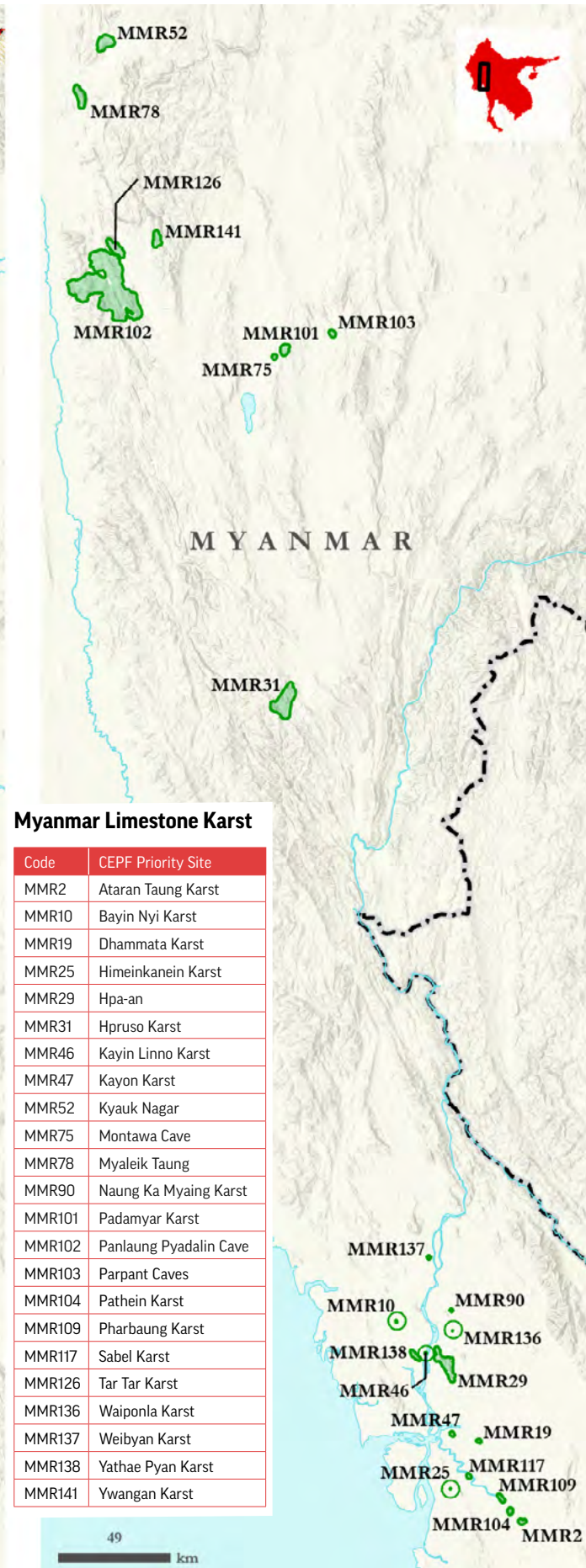
Mekong River and Major Tributaries Corridor

Code	CEPF Priority Site
KHM19	Mekong River from Kratie to Lao PDR
KHM28	Sekong River
KHM29	Sesan River
KHM33	Srepok River
KHM38	Thala Stuong Treng
KHM43	Western Siem Pang
LAO12	Lower Nam Ou
LAO13	Mekong Confluence with Nam Kading
LAO14	Mekong Confluence with Xe Bangfai
LAO15	Mekong River from Luang Prabang to Vientiane
LAO16	Mekong River from Phou Xiang Thong to Siphandon
LAO30	Pakxan Wetlands
LAO38	Siphandon
LAO39	Upper Lao Mekong
LAO41	Upper Xe Kaman
LAO44	Xe Champhon
THA62	Mekong Channel near Pakchom
THA114	Ubon Mun River



Chindwin River Corridor

Code	CEPF Priority Site
MMR133	Upper Chindwin River: Kaunghein to Padumone Section

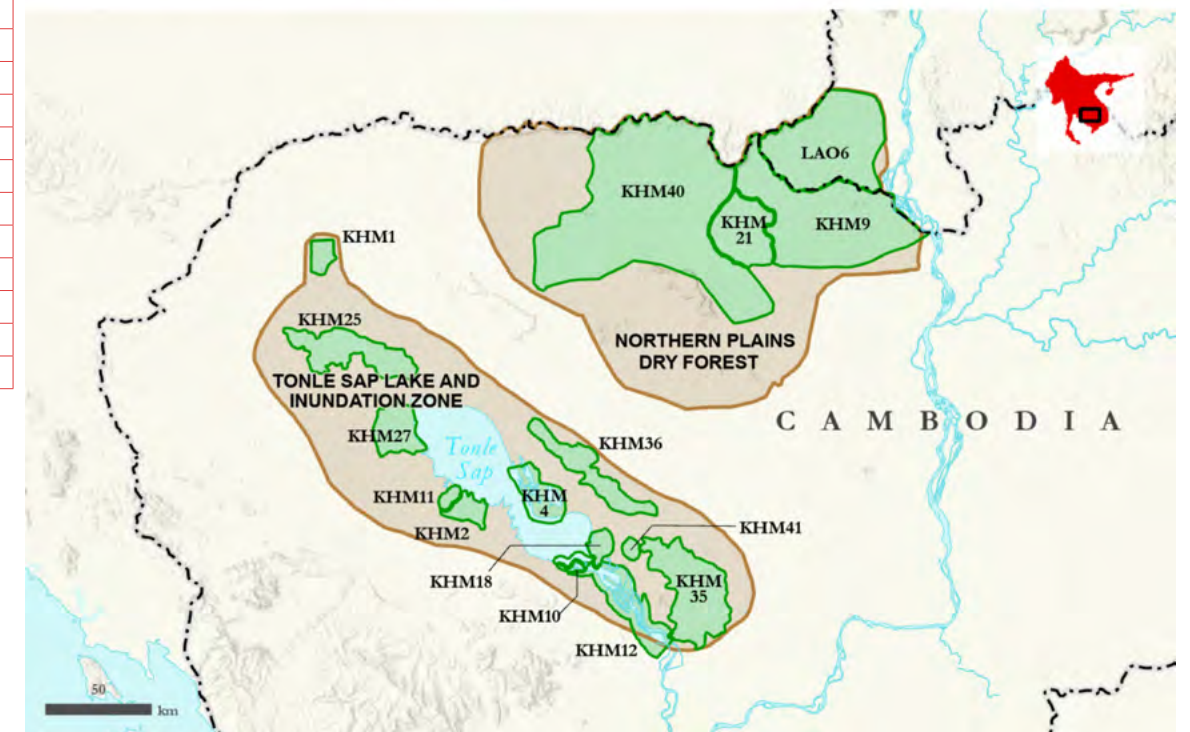


Myanmar Limestone Karst

Code	CEPF Priority Site
MMR2	Ataran Taung Karst
MMR10	Bayin Nyi Karst
MMR19	Dhammata Karst
MMR25	Himeinkanein Karst
MMR29	Hpa-an
MMR31	Hpruso Karst
MMR46	Kayin Linno Karst
MMR47	Kayon Karst
MMR52	Kyauk Nagar
MMR75	Montawa Cave
MMR78	Myaleik Taung
MMR90	Naung Ka Myaing Karst
MMR101	Padamyar Karst
MMR102	Panlaung Pyadalin Cave
MMR103	Parpant Caves
MMR104	Pathein Karst
MMR109	Pharbaung Karst
MMR117	Sabel Karst
MMR126	Tar Tar Karst
MMR136	Waiponla Karst
MMR137	Weibyan Karst
MMR138	Yathae Pyan Karst
MMR141	Ywangan Karst

Sino-Vietnamese Limestone Corridor

Code	CEPF Priority Site
CHN6	Bangliang
CHN10	Chongzuo
CHN13	Daweishan (Yunnan)
CHN17	Diding
CHN26	Funing Niaowangshan
CHN27	Fuping - Gula - Dingye
CHN34	Gulongshan
CHN51	Longhua
CHN52	Longhushan
CHN53	Longshan section of Nonggang
CHN55	Malipo
CHN60	Nonggang
CHN61	Paiyangshan
CHN66	Shangsi-Biannian
CHN80	Xidamingshan
VNM4	Ba Be
VNM9	Ban Bung
VNM10	Ban Thi - Xuan Lac
VNM12	Bat Dai Son
VNM17	Binh An
VNM25	Cham Chu
VNM42	Du Gia
VNM52	Khau Ca
VNM60	Lam Binh
VNM66	Na Chi
VNM84	Sinh Long
VNM90	Tat Ke
VNM91	Tay Con Linh
VNM94	Than Xa
VNM103	Trung Khanh
VNM105	Tung Vai



Northern Plains Dry Forest and Tonle Sap Lake and Inundation Zone Corridor

Code	CEPF Priority Site
KHM1	Ang Tropeang Thmor
KHM2	Bakan
KHM4	Boeung Chhmar / Moat Khla
KHM9	Chhep
KHM10	Chhnuk Tru
KHM11	Dei Roneat
KHM12	Kampong Laeng
KHM18	Lower Stung Sen

Code	CEPF Priority Site
KHM21	O Skach
KHM25	Preah Net Preah / Kra Lanh / Pourk
KHM27	Prek Toal
KHM36	Stung / Chi Kreng / Kampong Svay
KHM35	Stung Sen / Santuk / Baray
KHM40	Upper Stung Sen Catchment
KHM41	Veal Srongae
LAO6	Dong Khanthung



Tonkin snub-nosed monkey (*Rhinopithecus avunculus*). © FFI/Le Khac Quyet

CEPF is a joint initiative of l'Agence Française de Développement, Conservation International, the European Union, the Global Environment Facility, the Government of Japan and the World Bank.

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