



World Heritage & Nature:

Regional Framework for Priorities in South-East Asia

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IUCN (International Union for the Conservation of Nature) is a membership Union composed of both government and civil society organisations. It harnesses the experience, resources and reach of its more than 1,400 Member organisations and the input of more than 19,000 experts. IUCN is the global authority on the status of the natural world and the measures needed to safeguard it.

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Executive Summary	4
Introduction	4
Background	4
How the World Heritage Convention works	5
Criteria and requirements for World Heritage listing	6
Types of World Heritage Properties	7
Snapshot of natural World Heritage in Asia	7
History and characteristics of natural World Heritage in Asia	7
State of conservation and IUCN World Heritage Outlook assessments	11
Capacity-building needs	12
Focus on South-East Asia	12
Identification of possible priorities and opportunities for new nominations and extensions of existing properties in South-East Asia	13
Methodology	13
Potential candidate sites	14
Features and approaches proposed for the region over the years, or as mentioned in IUCN guidance documents	15
Identification of possible priorities for extensions	22
Country overview of possible priority sites, regions and features	22
Malaysia	24
Singapore	24
Philippines	26
Indonesia	28
Brunei Darussalam	29
Viet Nam	31
Timor-Leste	31
Cambodia	33
Lao PDR	33
Myanmar	35
Thailand	36
Other recommendations	38
References	39
Annex 1: Consulted IUCN literature	40
Annex 2: Disclaimer	41

Executive Summary

South-East Asia's natural World Heritage properties are a testament to the region's incredible biodiversity, geological wonders, and cultural significance of globally outstanding landscapes. These properties include the most significant habitat for tigers, the world's largest flower, unique tower-karst landscapes, and sacred places which inspired people for generations, for example.

To reinforce a better representation of nature conservation sites in the South-East Asia global biodiversity hotspot, the UNESCO Offices in Bangkok and Jakarta and IUCN have developed this practical guidance to support States Parties identifying priorities for natural World Heritage in the next 5 to 10 years in 11 countries in South-East Asia (Brunei Darussalam, Cambodia, Lao People's Democratic Republic, Indonesia, Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor-Leste, Viet Nam) with an aim to support the implementation of the Regional Framework Action Plan for Asia and the Pacific (2023-2030) as a result of the Third Cycle of Periodic Reporting.

This stocktake was developed primarily by combining a literature review with spatial prioritization frameworks. It presents a map of the 42 sites which States Parties have indicated they intend to consider nominating for the UNESCO World Heritage List (Tentative List), as well as a map of the over 30 possible priorities / opportunities for areas with World Heritage quality as identified in IUCN gap studies, in addition to various themes which, with further research, would likely generate additional ideas. The opportunities which were found for all but one of the 11 assessed countries have been presented in a practical overview tailored to each country.

The recommendations made are without prejudice whatsoever to either the decision of

any State Party to consider nominations on its territory, whether mentioned or not mentioned in this volume, or to the outcomes of potential evaluations of IUCN's World Heritage Panel (or of the equivalent body in ICOMOS) regarding any future nomination of any property for World Heritage Property status.

This document identifies potential priorities based on currently available ecological, geological and species data only. It does not assess the presence of Indigenous Peoples and local communities, nor the status of their rights, governance systems, or relationships to land and resources. Many of the areas identified are likely to overlap with Indigenous lands and territories, whether customary or statutory. As such, these findings should not be interpreted as recommendations for nomination without further, site- and context-specific analysis. Any future consideration would require engagement with Indigenous Peoples and local communities and careful assessment of rights, access, governance, and values, and the application of free, prior and informed consent (FPIC), in accordance with international standards.

Introduction¹

Background

The UNESCO World Heritage Convention aspires to identify, protect and preserve the world's cultural and natural heritage considered to be of outstanding value to humanity.

In 1994 the World Heritage Committee launched the Global Strategy for a Representative, Balanced and Credible World Heritage List, which aims to ensure that the World Heritage List reflects the world's cultural and natural diversity. Nevertheless, in 2025 natural values remain underrepresented on

¹ Large parts of this chapter are based on Howard, P. C. and Bertzky, B. (2020).

the World Heritage List, the gap between the number of World Heritage properties inscribed for their cultural values versus natural values is growing, and calls have been made to prioritize a better representation of nature conservation sites².

IUCN is the official Advisory Body for nature under the World Heritage Convention³. In that role IUCN has developed more than 30 thematic and geographical studies of possible gaps on the World Heritage List since the 1980s⁴, looking at specific regions, type of ecosystem, or World Heritage values. Such IUCN gap studies have aided States Parties in prioritising their nomination processes for natural heritage, but there remains further potential to highlight underrecognized and underrepresented ecosystems, countries and regions⁵.

The inscription of Hin Nam No National Park (Lao People's Democratic Republic – Lao PDR) on the UNESCO World Heritage List in 2025 underlines the pertinence of this type of work. IUCN recommended already in 1999 that this park be inscribed on the List together with transboundary areas in Viet Nam to protect the “largest surviving area of karst forest in South-east Asia.”⁶

South-East Asian countries encompass four global biodiversity hotspots⁷, have a significant potential contribution towards the reduction of global terrestrial species extinction risk from threat abatement actions (Figure 1), and have been captured in previous global studies, but a specific stocktake focussed on South-East Asia had not been undertaken. This practical guidance aims to support 11 States Parties in

South-East Asia to identify priorities for natural World Heritage in the next 5 to 10 years. It was developed primarily through a literature review, collection of additional information and spatial analysis. It is hoped that the methodology applied here can unlock similar work in other regions of the world.

How the World Heritage Convention works

The World Heritage Convention is a conservation instrument that promotes international cooperation in the protection and management of natural and cultural heritage by maintaining a list of the world's most outstanding properties. By the end of 2025, a total of 196 countries had ratified the Convention, becoming ‘States Parties’. Each property on the World Heritage List is voluntarily nominated by the country(ies) in which it is located, and its inclusion on the List follows a rigorous, independent evaluation procedure to determine whether it has ‘Outstanding Universal Value’ and fully satisfies the criteria and requirements for listing (see below).

The protection and management of each World Heritage property (or ‘site’) remains the responsibility of the State Party concerned. Maintaining the World Heritage List and monitoring the conservation status of listed properties is the responsibility of the World Heritage Committee. The Committee meets once a year to review the state of conservation of existing World Heritage properties, to consider new nominations, and to oversee the World Heritage Fund. The Committee is made up of representatives from 21 elected States Parties, with rotating membership. It is

² [Open-ended Working Group of States Parties to the World Heritage Convention](#)

³ [World Heritage | IUCN](#)

⁴ [Nominating new World Heritage sites | IUCN](#)

⁵ [Report of the Open-ended Working Group Decision 47 COM 11](#).

⁶ IUCN (1999). World Heritage Nomination – IUCN Technical Evaluation Phong Nha Cave (Vietnam).

⁷ Almost all South-East Asia is a biodiversity hotspot. The [Critical Ecosystem Partnership Fund](#) considers only 36 recognized biodiversity hotspots. These are Earth's most biologically rich—yet threatened—terrestrial regions. To qualify as a biodiversity hotspot, an area must meet two strict criteria: 1) Contain at least 1,500 species of vascular plants found nowhere else on Earth (known as "endemic" species); and 2) Have lost at least 70 percent of its primary native vegetation.

supported by a Secretariat, the Paris-based World Heritage Centre, and three technical Advisory Bodies. These are the International Union for Conservation of Nature (IUCN), the International Council on Monuments and Sites (ICOMOS) and the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM). Guidance on the implementation of the Convention is provided in detail in its Operational Guidelines.

The World Heritage Centre maintains a very comprehensive website which catalogues resources for every property (including a Statement of Outstanding Universal Value; the full text of Committee Decisions, nomination and evaluation documents, state of conservation and mission reports, maps, photographs and videos). It also provides details of all Committee meetings (including live streaming services when meetings are underway), policies, news items, and downloadable publications (including, for example, the resource manuals on Managing World Heritage and Preparing World Heritage Nominations)⁸.

Criteria and requirements for World Heritage listing

To be inscribed on the World Heritage List, a property must be considered to have 'Outstanding Universal Value' (OUV). This is defined as being 'cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity.' The State Party preparing a nomination is required to demonstrate that the proposed property is exceptional in a global context and that it meets requirements of OUV through an effective and inclusive participatory process. One aspect of the nomination process is to document comparative analyses of the nominated property with other relevant properties of local, national and international importance, with a view to demonstrating global significance distinguishing the

nominated site from properties on the World Heritage List, other international designations and sites at the national and local levels. OUV is established in terms of ten World Heritage criteria (four of which relate to natural heritage) and also requires that a property satisfies 'conditions of integrity' (in terms of wholeness and intactness) and is adequately protected and managed. These elements constitute the 'three pillars' of a property's OUV.

As far as natural heritage is concerned, nominated properties must satisfy at least one of the following four criteria of Outstanding Universal Value:

- Criterion (vii): contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance.
- Criterion (viii): be outstanding examples representing major stages of Earth's history, including the record of life, significant ongoing geological processes in the development of landforms, or significant geomorphic or physiographic feature.
- Criterion (ix): be outstanding examples representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animal.
- Criterion (x): contain the most important and significant natural habitats for in situ conservation of biological diversity, including those containing threatened species of Outstanding Universal Value from the point of view of science or conservation.

To be considered as having OUV, nominated properties must:

- 1) Meet one or more World Heritage criteria, demonstrating the property's

⁸ [World Heritage Centre - Preparing World Heritage Nominations](#)

global significance;

- 2) Meet the conditions of integrity (for natural and cultural sites) and authenticity (for cultural properties);
- 3) Meet the requirements for protection and management.

Types of World Heritage Properties

Natural World Heritage properties meet at least one natural criteria (vii-x), cultural properties meet one or more of the cultural criteria (i-vi), while mixed properties meet at least one cultural and one natural criteria.

Spatially, World Heritage properties can take different forms, from single land and/or sea areas located within the borders of a single country to serial transnational properties. They are usually nominated as either 'natural' or 'cultural' properties, with few 'mixed' properties inscribed under at least one 'natural' and one 'cultural' criterion. In addition, 'cultural landscapes' (which explicitly recognize the linkages between nature, culture and people in the use of the natural environment) are normally inscribed under cultural criteria but may (in a few cases) be 'mixed' cultural landscapes that satisfy at least one natural criterion as well as cultural criteria. Properties may also be configured as:

- Transboundary properties involving single land and/or sea areas that lie across an international border (only one such example in Asia: Phong Nha-Ke Bang National Park and Hin Nam No National Park);
- Serial properties involving multiple separate land and/or sea areas within a single country (such as India's Western Ghats); or
- Serial transnational properties involving multiple separate land and/or sea areas spread between two or more countries (such as Western Tien-Shan, Cold Winter Deserts of Turan, or Uvs Nuur Basin).

Snapshot of natural World Heritage in Asia

History and characteristics of natural World Heritage in Asia⁹

Asia's natural World Heritage properties are a testament to the continent's incredible biodiversity, geological wonders, and cultural significance of globally outstanding landscapes. Starting with the 1979 inscription of Nepal's Sagarmatha National Park (home to Mount Everest), the network has expanded to [64 properties across 20 countries](#). These properties include the world's largest mangrove forest, the youngest plateau, the deepest gorges, tallest mega-dunes, and the most biologically diverse temperate region on earth. They also provide the most significant habitat for pandas, tigers, gibbons, rhinos, elephants, antelopes, migratory birds – as well as the Komodo lizard, wild yak, the world's largest flower, and thousand-year-old cedar trees. Several properties inscribed both for cultural and natural values hold significant importance for Buddhism, Hinduism and Confucianism, and are linked with the appearance of writing while they have inspired some of the most renowned works of art.

Natural World Heritage in Asia experienced a slow start compared to the global picture but there has been an increase in recent years (Figure 2), and since 2012 natural World Heritage properties in Asia comprise about 30% of all natural and mixed properties in the world¹⁰.

⁹ Asia is defined according to the regional classification of the UNESCO World Heritage Centre, covering 36 countries minus those in the Pacific as classified to fall under "Asia and the Pacific".

¹⁰ Statistical information about regional distribution of World Heritage sites over the years as available on whc.unesco.org is only available for UNESCO regions. There are currently 85 natural/mixed sites in the Asia and Pacific Region

Many natural heritage areas in South-East Asia hold profound cultural and spiritual significance for Indigenous Peoples and local communities, including as forests of faith, burial grounds, ancient crematory groves, places of prayer, or as a space for meditation¹¹. Indigenous peoples are also custodians to natural heritage areas, reflecting the interconnection between people and places in countless ways.

Looking at the type of ecosystems represented on the World Heritage List, the IUCN Global Ecosystem Typology was used¹². This comprehensive classification framework for Earth's ecosystems was finalized in 2020 and helps identify the ecosystems that are most critical for biodiversity conservation, research, management and human wellbeing into the future. The Typology distinguishes 10 realms, 25 biomes, and 110 ecosystem functional groups – of which 21 biomes and 59 groups are represented in Asia's natural World Heritage properties. Forests, aerobic caves, grasslands and streams are each represented in over 10 properties, while seagrass meadows, sea ice or boreal fens are present in only 1 property. Non-represented biomes and groups are discussed further down in this report.

Forest ecosystems are well-represented in 54 properties, including tropical/subtropical lowland rainforests (eg. Western Ghats, India; Kinabalu Park, Malaysia; Sinharaja Forest Reserve, Sri Lanka), tropical/subtropical dry forests and thickets (eg. Chitwan National Park, Nepal), tropical/subtropical montane rainforests (eg. Lorentz National Park, Indonesia, Kaeng Krachan Forest Complex, Thailand), boreal and temperate high montane forests and woodlands (eg. Yakushima, Japan; Hubei Shennongjia, China), deciduous temperate forests (eg. Nanda Devi, India; Shirakami-Sanchi, Japan), and warm temperate laurophyll forests (eg. Fanjingshan, China; Ogasawara Islands, Japan).

Lakes and freshwater features are represented in 45 properties, including the alluvial grasslands of the Manas Wildlife Sanctuary, the Korgalzhyn-Tengiz lakes which provide feeding grounds for up to 16 million birds, or an underground river Puerto-Princesa.

Mountainous ecosystems are represented in 31 properties, including the Mount Emei Scenic Area (China), Great Himalayan National Park Conservation Area (India), or Mount Hamiguitan (Philippines).

Marine and coastal features are represented in 13 properties, including the mangroves of the Sundarbans, coral reefs in Tubbataha and Komodo, salt marshes along the Coast of Yellow Sea, and sea ice features in Shiretoko.

Deserts are represented in 6 properties, including cold deserts in central Asia, desert-steppes in Mongolia, one of the hottest places on earth in Iran, or the densest collection of stabilized mega-dunes globally in northwestern China.

Looking beyond ecosystems, there are also nine properties with caves and karst, including South China Karst (China), Gunung Mulu National Park (Malaysia) and Phong Nha-Ke Bang National Park and Hin Nam No National Park (Viet Nam/Lao PDR). Only two properties are considered fossil sites: Chengjiang (China), known for its fossils from the Cambrian period, 530 million years before present, and Lorentz National Park (Indonesia), containing fossil sites which provide evidence of the evolution of life on New Guinea. Finally, ten properties have been recognized for their earth features, including the Badain Jaran Desert (China), Jeju Volcanic Island (Republic of Korea) and Tajik National Park (Tajikistan).

In terms of the four criteria used in determining OUV, Asian properties are distinctive from those elsewhere with a slightly higher proportion of properties listed for their outstanding biodiversity values, and

(APA), including 64 in Asia and 21 in the Pacific (including Australia and New Zealand).

¹¹ [How Indigenous Peoples and Local Communities Shaped Cambodia's National Ecosystem Assessment - BES Net](#)

¹² [IUCN Global Ecosystem Typology - resource | IUCN](#)

significantly fewer for their geological values (Figure 3). In general, terrestrial properties in Asia are much smaller than those elsewhere in the world, and about one third are of medium size (500 to 2,000 km²).

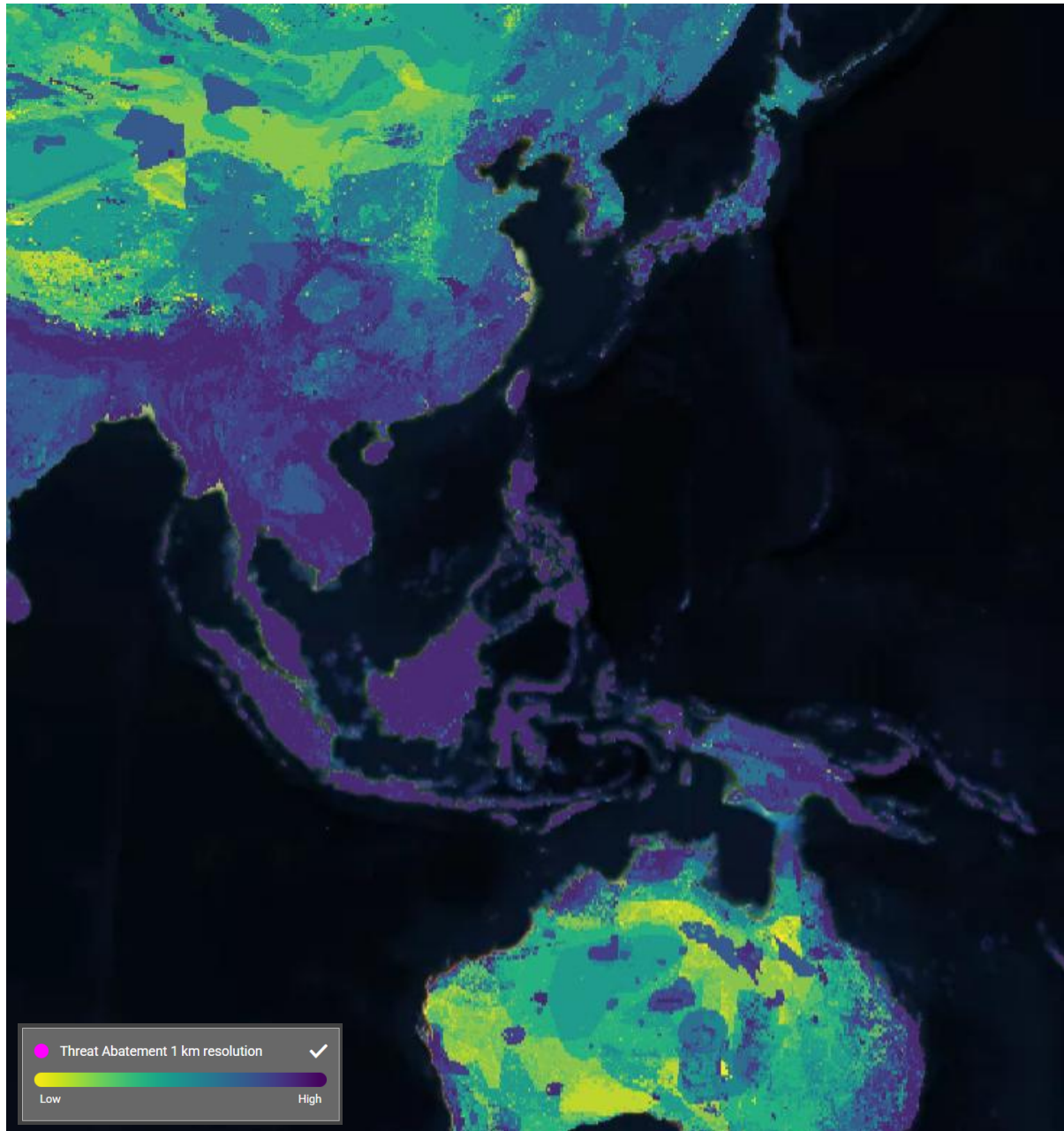


Figure 1: Map showing the significant potential contribution of South-East Asia towards the reduction of global terrestrial species extinction risk from threat abatement actions. The Species Threat Abatement and Restoration Metric (STAR) allows quantification of the potential contributions that species threat abatement ($STAR_T$) and restoration ($STAR_R$) activities offer towards reducing extinction risk across the world. $STAR_T$ represents the summed scores of the proportion of each species' habitat range present, weighted by the species' IUCN Red List status. Marine and freshwater data are upcoming. For more information: [STAR](#). Source: [IBAT](#).

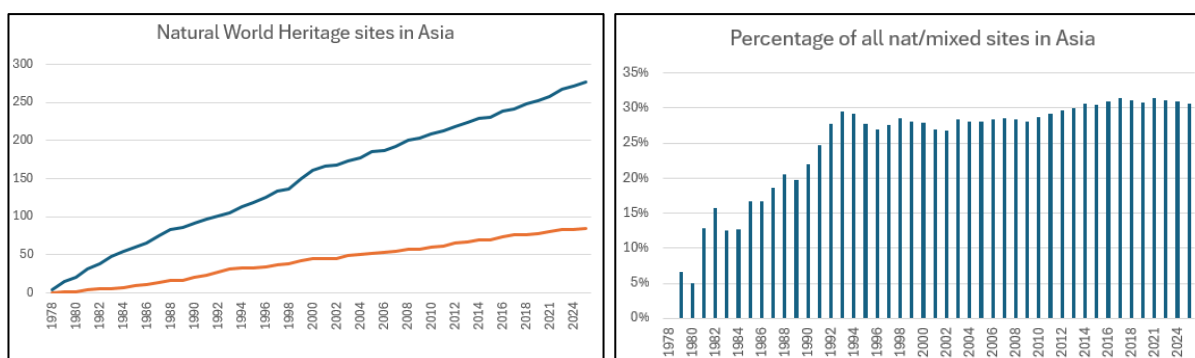


Figure 2. Development of the natural World Heritage network in Asia, compared with the rest of the world. Left: Cumulative number of natural/mixed properties inscribed in Asia (orange) and globally from 1978 to 2025 (blue). Right: Proportion of the global cumulative total of inscribed natural/ mixed properties located in Asia from 1978 to 2025.

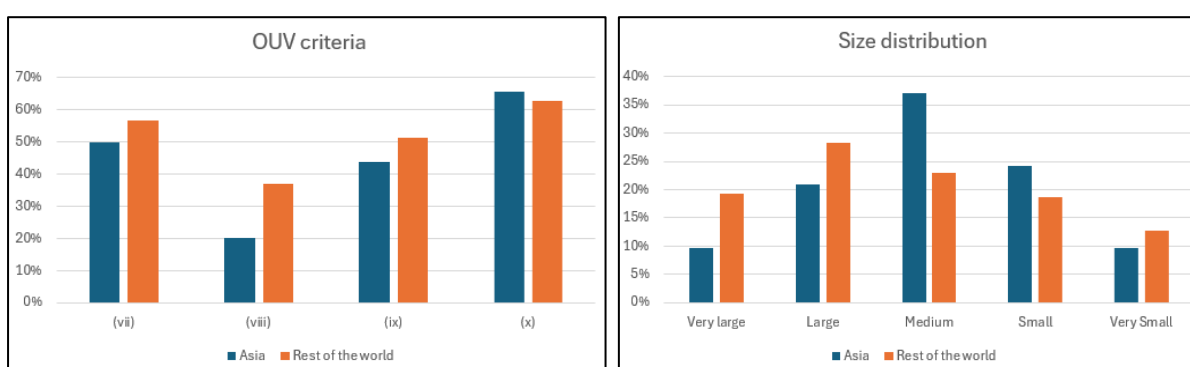


Figure 3. Left: Application of the four World Heritage natural criteria in Asia (64 properties) and the rest of the world (276 properties). Note that some sites satisfy more than one criterion. Right: Size distributions of terrestrial natural/mixed World Heritage Sites in Asia (63 properties) and the rest of the world (276 properties). Sizes are considered very large (over 10,000 km²), large (2,000 to 10,000 km²), medium (500 to 2,000 km²), small (100 to 500 km²) and very small (under 100 km²).

State of conservation and IUCN World Heritage Outlook assessments

World Heritage properties have the potential to act as ‘models’ of conservation management, and given priority by national authorities and partner institutions because of their internationally recognised status. Providing the necessary protection and management to sustain a property’s OUV is an obligation for the States Parties concerned, and monitoring the state of conservation of the key attributes of OUV is necessary to ensure that management programmes are effective.

The two main provisions for monitoring under the Convention are the periodic reporting and reactive monitoring processes, as specified in the Convention’s Operational Guidelines¹³. The periodic reporting process requires States Parties to report every eight years or so on the state of conservation of their ‘properties’, using an online reporting tool. They are also required to inform the World Heritage Centre if they plan to undertake any development that could affect the OUV of the property so that appropriate advice can be provided to mitigate any possible negative impacts. Occasionally the World Heritage Centre or Advisory Body will receive a report of developments affecting a property from another source, in which case the State Party will be requested to comment on the information and consider what action may need to be taken.

Whenever a specific threat or a combination of threats to a World Heritage property are identified, the reactive monitoring process may be triggered. This is a reporting mechanism by UNESCO and the Advisory Bodies to the World Heritage Committee on the state of conservation of specific World Heritage properties under threat, informed through State Party’s reports and third-party information in accordance with the Operational Guidelines. The World Heritage

Committee may request for a reactive monitoring mission to the property for site-level assessment of threats and dialogue with the State Party and relevant rightsholders and stakeholders, the findings of which are reported back to the Committee. In some cases the States Parties may decide to invite an advisory mission for expert advice.

The Reactive Monitoring is the procedure for the inclusion of properties on the List of World Heritage in Danger in cases where the specific requirements and criteria are met. When properties are added to the List of World Heritage in Danger, a set of specific, measurable indicators are set to guide corrective measures towards the removal of the property from the Danger List. In Asia, there have been two natural World Heritage properties with a history of being added to the List of World Heritage in Danger: Manas Wildlife Sanctuary (India) from 1992 to 2011; and the Tropical Rainforest Heritage of Sumatra (Indonesia) from 2011 to the present.

To complement the statutory monitoring process of the World Heritage Convention, IUCN, in 2014, launched its World Heritage Outlook, a global assessment of natural and mixed World Heritage properties. By assessing the status of all properties inscribed under the natural criteria at a single point in time, it allows for an independent global assessment of the status and the future conservation prospects of natural World Heritage properties. It allows for a global as well as regional and site-level analyses of the most pressing threats and challenges as well recognising good conservation practice. Based on expert knowledge with contributions from hundreds of experts including site managers, management authorities, civil society organisations, Indigenous peoples organisations, scientists and researchers, each site assessment details the trend of values, current and potential threats to the OUV of the property, and assesses the effectiveness of their protection and management.

¹³ See details at: <https://whc.unesco.org/en/periodicreporting/> ;

<http://whc.unesco.org/en/reactive-monitoring/> ; and <https://whc.unesco.org/en/guidelines/>.

The most recent [IUCN World Heritage Outlook 4](#) was published in October 2025, which includes updated assessments for the natural and mixed properties in Asia. Compared to the global picture of 61% of properties being assessed with a positive overall outlook, properties in Asia rated higher at 68%. On the reverse, this points to 32% of properties being assessed as ‘critical’ or ‘significant concern’, and for four the conservation outlook declined since 2020. Climate change, unsustainable tourism and invasive alien species were identified as the top three greatest threats to natural World Heritage properties in Asia, and about half of the properties (51%) have ineffective management.

Capacity-building needs

Every eight years or so, States Parties conduct a self-assessment of the application of the World Heritage Convention, the Periodic Reporting¹⁴. UNESCO uses these data to identify progress and develop action plans. The latest cycle for Asia was examined in 2023 and identified capacity building as a priority area both at the national level, and the property level (especially for marketing and promotion, risk preparedness, environmental sustainability, community participation)¹⁵. It also identified new learning areas, such as climate change, and the importance of linking World Heritage with other international designations (Biosphere Reserves, Global Geoparks, etc.).

The 2023-2030 Action Plan for the Asia and Pacific Region¹⁶ includes several priorities for which this Regional Framework will be particularly useful:

- Capacity-building activities for heritage inventories;
- Capacity-building activities (online, in person) on the development of nomination dossiers (incl. Upstream

Process);

- By 2030, at least 15 capacity-building activities on the Upstream process and available options for preparatory assistance are organised across the sub-regions.

The IUCN World Heritage Outlook 4 findings also indicated that for the Asia region, a particular focus on tourism and visitor management is needed as one of the key priorities, while the IUCN Green List Standard can act as a tool towards improving management effectiveness¹⁷.

Focus on South-East Asia

The first properties in South-East Asia were inscribed in 1991, almost 20 years after the adoption of the World Heritage Convention.

- Komodo National Park (IND, 1991)
- Ujung Kulon National Park (IND, 1991)
- Thungyai-Huai Kha Khaeng Wildlife Sanctuaries (THA, 1991)
- Tubbataha Reefs Natural Park (PHI, 1993)
- Ha Long Bay - Cat Ba Archipelago (VIE, 1994)
- Lorentz National Park (IND, 1999)
- Puerto-Princesa Subterranean River National Park (PHI, 1999)
- Gunung Mulu National Park (MAL, 2000)
- Kinabalu Park (MAL, 2000)
- Phong Nha-Ke Bang National Park and Hin Nam No National Park (VIE/LAO; 2003/2025)
- Tropical Rainforest Heritage of Sumatra (IND, 2004)
- Dong Phrayayen-Khao Yai Forest Complex (THA, 2005)
- Mount Hamiguitan Range Wildlife Sanctuary (PHI, 2014)
- Trang An Landscape Complex (VIE, 2014)
- Kaeng Krachan Forest Complex (THA, 2021)

¹⁴ [UNESCO World Heritage Centre - Periodic Reporting](#)

¹⁵ [Report on the results of the Third Cycle of Periodic Reporting exercise in Asia-Pacific](#)

¹⁶ <https://whc.unesco.org/en/documents/201265>

¹⁷ [How is the Green List programme supporting World Heritage conservation? - Story | IUCN](#)

Identification of possible priorities and opportunities for new nominations and extensions of existing properties in South-East Asia

The aim of this chapter is to identify some examples of possible priorities for the natural World Heritage network in South-East Asia over the next 5-10 years.

First, an illustrative selection is presented of possible priorities for new nominations based on the best scientific knowledge currently available and consolidation of expert opinion developed over many years and documented in the series of World Heritage 'thematic studies' published by IUCN and/or UNESCO (see Annex 1 for bibliography). The list of possible new sites is intended to illustrate the diversity of opportunity for new sites in major regions, under each World Heritage criterion. It is not intended to be comprehensive, as other properties are likely to be identified in future with equally compelling claims of OUV. Furthermore, the short illustrative list presented here is focused on sites that hold the potential to fill significant gaps in World Heritage coverage and contribute to the Committee's 1994 Global Strategy to "develop a representative, balanced and credible" World Heritage List as well as the Committee's 2025 request "to achieve better representation of natural and mixed properties in the World Heritage List"¹⁸.

Second, a selection of possible extensions to existing properties is presented, based on past Committee Decisions, IUCN recommendations and expert's first-hand understanding of opportunities that may exist at other

properties. The purpose of such extensions would be to confer the benefits of World Heritage status on a wider land- or seascape, enhancing the property's ecological integrity, the viability of its animal and plant populations, its suite of values and its resilience to climate change and other external factors.

Methodology

The following procedure was used to identify an illustrative shortlist of candidate sites, areas and features:

- **Step 1.** A list was compiled of possible candidate sites included on States Parties' Tentative Lists and/or IUCN thematic studies;
- **Step 2.** Against the background of each of the four natural criteria of OUV, a list was compiled of features (for which coordinates are most likely not available) and approaches proposed for the region over the years, or as mentioned in IUCN guidance documents;
- **Step 3.** An initial 'shortlist' was developed of possible priority sites, regions and features, organized per country, including by looking at possible priorities for extensions of existing World Heritage properties;
- **Step 4.** Input was solicited and collected through [a regional review process](#) targeting World Heritage focal points, IUCN Expert Commissions (including World Commission on Protected Areas, Species Survival Commission), and Indigenous Peoples and local communities (through the International Indigenous Peoples Forum for World Heritage (IIPFWH) and the Asia Indigenous Peoples Pact (AIPP);
- **Step 5.** The Regional Framework was reviewed and finalized.

¹⁸ Report of the Open-ended Working Group established by the extended 45th Session of the

World Heritage Committee, 28 April 2025.
[Decision 47 COM 11.](#)

Potential candidate sites

- **Tentative List:** a total of 42 potential natural/mixed sites are included in the Tentative Lists of the 11 States Parties in South-East Asia (2 States Parties have not identified any natural/mixed sites) (Figure 4), and about 15 potential Tentative List sites are known to be informally considered but have not yet gone through the formal process^{19 20}.
- **IUCN thematic gap studies:** over 30 possible priorities have been identified in studies looking at islands (1991), fossils (1996), forests (1997, 2005), wetland and

marine (1997, 2013), mountains (2002), caves and karst (2008), volcanoes (2009, 2019), wilderness (2007, 2017) and deserts (2011) (Figure 5). There have also been studies identifying global priorities for natural properties (1982, 2004, 2013), as well as 12 regional studies but none are relevant for South-East Asia. IUCN thematic gap studies have identified specific sites (point location), regions / bioprovinces (areas), or features (no coordinates available).

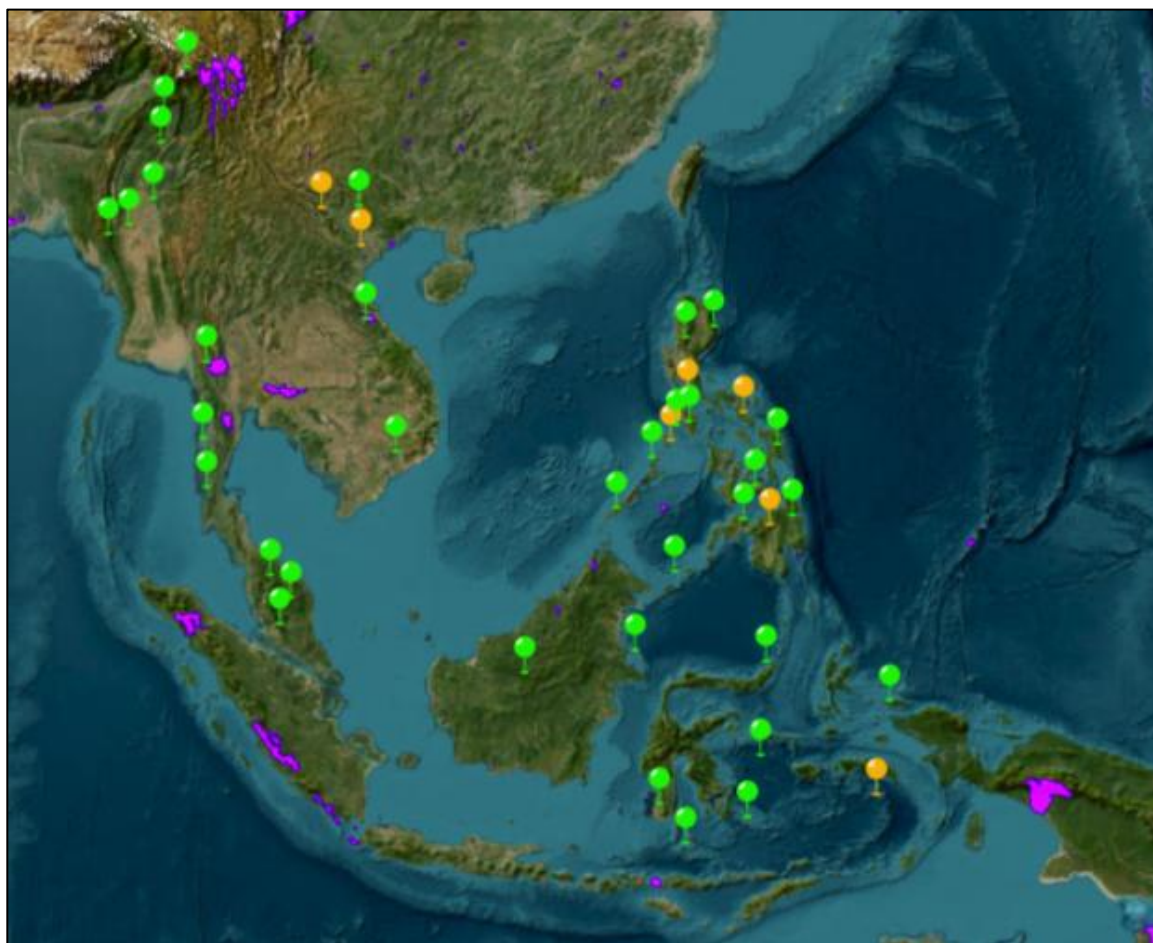


Figure 4: Overview of the 42 sites included on the Tentative List as a possible natural site (green) or mixed site (orange) (note that only 41 dots are shown because the 42nd TL site concerns a significant boundary modification of TRHS). Purple areas show existing natural and mixed World Heritage sites. Source: <https://whc.unesco.org/en/tentativelists/>

¹⁹ As discussed during workshops in 2024 and 2025 organized by the UNESCO Bangkok Office.

²⁰ A Tentative List is an inventory of those sites situated on its territory which each State Party

considers suitable for nomination to the World Heritage List. *Operational Guidelines*, Para. 62.

Features and approaches proposed for the region over the years, or as mentioned in IUCN guidance documents

Frameworks have been developed to consider geological criteria (2005, 2021), biodiversity criteria (2014), and superlative natural phenomena and exceptional natural beauty (2013). Full references of these resources are provided in Annex 1 and are highly recommended for more detailed guidance.

Criterion (vii)

Context

Two distinct concepts are embodied in this criterion: (1) superlative natural phenomena and (2) exceptional natural beauty and aesthetic importance. Guidance documents indicate that nominations of new properties proposed under this criterion can address one or the other of these ideas or both²¹. This criterion is usually applied in combination with at least one other criterion. It has been applied to 153 natural/mixed properties (56% of the global total), but only used as a sole criterion for eight properties, including four in China and one in Nepal – recognized in the early days of the Convention.

The first, ‘superlative natural phenomena’, can often be objectively measured and assessed (e.g. deepest canyon, highest mountain, largest cave system, highest waterfall). Yet rarely any individual feature measured to be the highest or the largest on Earth has been singled out to justify the inscription, and more often wording has been more cautious, indicating that a property contains ‘one of the largest, highest, deepest’.

The second concept, that of ‘exceptional natural beauty and aesthetic importance’, normally requires a qualitative assessment, and needs a strong framework to enable an assessment that is as objective as possible. This

criterion applies to natural properties that are seen as having exceptional natural beauty and aesthetic importance. There are many intellectual approaches to concepts of the beauty and aesthetics of natural areas. While no one approach is recommended, adopting one or more recognized approaches is essential. Merely asserting these qualities without a robust supporting argument and evidence is insufficient. The application of this criterion should not be confused with the recognition of the aesthetics of cultural properties and cultural landscapes that is currently expressed through the use of the cultural criteria (UNESCO 2011b). This highlights the need to further strengthen guidance for comparisons of properties proposed under criterion (vii). Beauty in the World Heritage concept has been primarily considered as visual, with only a few occasional references to sound (eg. from the beating wings of millions of butterflies, to cracking sea-ice, or singing sands). Looking into other sensory aspects of beauty, such as soundscapes or smell, might provide additional insights.

What this means for South-East Asia

Superlative natural phenomena:

- High animal concentrations and large migrations that are globally outstanding (e.g. the millions of bats in Gunung Mulu National Park, Malaysia);
- Geomorphological features, noting that most existing sites feature mountains, some coasts, and few lowlands and corals.

Exceptional natural beauty and aesthetic importance:

- Areas with scenic appeal (often a combination of water, relief and forest), striking colours, contrasts, seasonal changes, unexpected and breathtaking

²¹ Study on the application of Criterion (vii) Considering superlative natural phenomena and exceptional natural beauty within the World

Heritage Convention (2013); Preparing World Heritage Nominations resource manual (UNESCO 2011b).

vistas found nowhere else²²;

- Soundscapes & odorscapes.

Criterion (viii)

Context

This criterion has been applied to 100 natural/mixed properties (37% of the global total), and is especially underrepresented in Asia (20% of Asian properties). It has been used as a sole criterion for 25 sites, featuring fossil sites, cliffs, volcanoes and caves. For 64 it has been used together with criterion (vii), and for about 35 properties for both criterion (x) and (ix). As per the latest guidance available²³, IUCN currently assesses criterion (viii) according to 11 broad themes (Figure 6).

There is also a contextual framework, an IUCN fossil site evaluation checklist, and a set of questions to help identify potential properties of OUV:²⁴

- Is it one of the unique geomorphological and landscape features? (e.g., Grand Canyon National Park in the US highlighting the erosional power of the Colorado River and its tributaries);
- Is it one of the best describing a geological process? (Swiss Tectonic Arena Sardona, mountain building);
- Does it offer one of the best interpretation model of a geological process? (e.g., Marianas Trench Marine National Monument for subduction process);
- Is it the first place where a geological term was first used? (e.g., *Devonian*, *Devon County in the UK*);
- Is it the first place where a model was first established? (e.g., Reykjanes Ridge, south of Iceland for sea-floor spreading rate);
- Is it a standard site for comparison? (e.g., San Andrea Fault System for strike-slip faulting);

²² Note that e.g. sunsets do not automatically trigger Criterion (vii).

²³ Mc Keever, P.J. and Narbonne, G.M. (2021). Geological World Heritage: a revised global framework for the application of Criterion (viii) of the World Heritage Convention. Gland, Switzerland: IUCN

- Is it a key site for active process of Earth dynamics? (e.g.; *Iceland, many sites in the East African Rift Valley*).
- Does it show the best record for the geological evolution of the region?

What this means for South-East Asia

Globally non- or underrepresented features on the World Heritage List are shown in Figure 6.

Given South-East Asia's geological history, opportunities might include²⁵:

- Ring of fire (theme 2, 4), including volcanoes (note that several volcanoes have been identified in earlier gap studies);
- Break up of Gondwana (several themes), currently only recognized under criterion (viii) in few properties in New Zealand, Australia (properties in India and Sri Lanka consider this event under criterion (ix) and (x) from a species diversification event only);
- Cretaceous rifting and break up, collision with Eurasia, formation of Himalaya and Tibetan plateau.

A first step would be to look at national geosites, IUGS Geological Sites, and existing UNESCO Global Geoparks, for example. The next step would be to map out all geological values of the proposed sites, organize values according to the 11 themes, identify overlaps between values and gaps on the List, write up how the values would fill gaps on the List, and perform a comparative analysis.

For example, Philippines has at least 7 National Geological Monuments²⁶, including one already part of the Puerto-Princesa Subterranean River National Park World Heritage site.

²⁴ Extracted from a presentation by Prof S. Felix Toteu delivered during a UNESCO workshop in Bangkok, 2024.

²⁵ Based on a presentation from Prof S. Felix Toteu during UNESCO workshops in 2024 and 2025.

²⁶ Aquino, Richard. (2016). Geotourism: An innovative form of tourism for development in the Philippines. Tourism Industry Outlook. 2. 20-27.

Another opportunity for increased recognition of geodiversity would be to consider Key Geoheritage Areas²⁷, a concept which has emerged recently. Case studies from existing Geoparks could potentially also be interesting for the elaboration of nominations that bridge geological and ecological values under criteria (viii), (ix), and (x).

Criterion (viii) has not often been used in the region, yet some existing properties inscribed for other criteria might warrant a review to add criterion (viii). For example, the Sangiran Early Man Site (Indonesia) is inscribed for cultural criteria only, even if it is one of the key properties for the understanding of human evolution. While such activities would not lead to new sites, they might provide opportunities for extensions and renominations. Many existing marine properties have important geological features which were not assessed for their World Heritage potential.

Criterion (ix) and Criterion (x)

Context

Because of the important biodiversity connections, criterion (ix) and criterion (x) are usually considered together. IUCN's comparative analyses of biodiversity is underpinned by spatial analyses that consider ecosystem values, species richness, biogeographic representation, irreplaceability, among others.

201 of the 276 natural properties are recognized for at least one of these criteria. Criterion (ix) is interpreted in a variety of ways and tends to be applied in combination with at least one other criterion (most commonly biodiversity criterion (x) – 108 properties). It has been used to recognise unusually large and intact landscapes and seascapes, globally unique or threatened ecosystems and communities, and other areas with globally significant ongoing ecological and biological processes. It has been applied to 139 natural/mixed properties (51% of the global

total), but only used as a sole criterion for eight properties, including two in Japan.

Criterion (x) is applied to properties that are outstandingly important for biodiversity conservation, most commonly measured in terms of total species richness of plants and animals, the number and proportion of endemic species, and the number and proportion of species that are recognized as globally threatened with extinction. It has been applied to 170 natural/mixed properties (63% of the global total), including 27 properties as a sole criterion. This criterion can be assessed relatively objectively by reference to existing global biodiversity datasets such as the IUCN Red List of Threatened Species, the World Database of Key Biodiversity Areas (KBAs), BirdLife International's Endemic Bird Areas (EBAs), Conservation International's Biodiversity Hotspots, and WWF's Global 200 Priority Ecoregions.

What this means for South-East Asia

South-East Asia encompasses four of the 35 global biodiversity hotspots, covering large areas of the eleven countries considered in this analysis. South-East Asia is also one of the areas in the world with the largest concentrations of critically endangered species²⁸.

Broad gaps in the coverage of biodiversity conservation priorities on the World Heritage List were identified according to four terrestrial prioritization schemes: biodiversity hotspots and high-biodiversity wilderness areas, Global 200 terrestrial priority ecoregions, Centres of Plant Diversity, and Endemic Bird Areas (Figure 7). Biogeographic marine provinces without nearshore World Heritage sites were also identified (Figure 7).

²⁷ [kga-issues-paper_6_red.pdf](#)

²⁸ <https://www.nature.com/articles/s44358-025-00059-4>

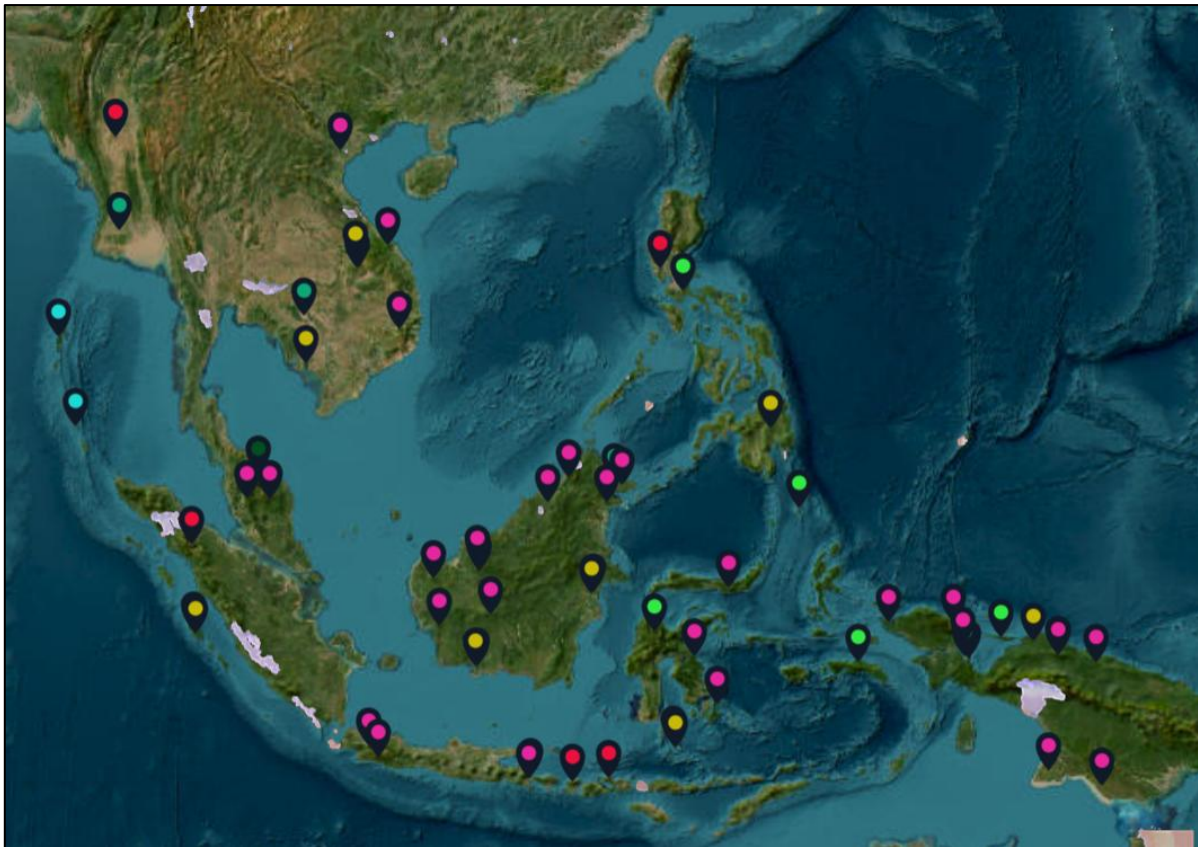


Figure 5. Sites identified in IUCN gap studies not yet inscribed on the World Heritage List or Tentative Lists, including Volcanoes (2019; red), Islands (1991; light blue), Terrestrial biodiversity (2013; light green), Forests (2003; dark green), Wetlands (1997; turquoise), Indicative List (1982; yellow), Protected Areas (2000; pink). Light blue shaded areas show existing natural and mixed World Heritage properties. Note that several areas have been mentioned in several gap studies.

	Theme	Key gaps (summary, non-exhaustive)
1	History of planet Earth and the evolution of life	Mass extinction events throughout the Phanerozoic; transnational nomination (eg. dinosaur footsteps); earliest diverse signs of life; the Great Oxidation Event; Snowball Earth (720-635 million years ago); Ediacara biota.
2	Tectonic systems	
3	Erosional systems	Erosional landscapes developed on clastic rocks; granite topographies; Badlands; entirely non-glacial mountain systems.
4	Volcanic systems	The southwestern Pacific island arcs; submarine volcanism; Collision zones, continental flood basalts, ring dykes or subvolcanic feeder and storage systems, large caldera forming volcanic systems, stratovolcanoes (eg. in the Indonesia-Philippine-Japanese subduction zones); hydrothermal vents
5	River, lake and delta systems	Large rivers
6	Cave and karst systems	Paleokarst, evaporite terrains (salt and gypsum)
7	Coastal systems	sea level change
8	Marine systems	Indian ocean; submarine expression of plate tectonic boundaries (including subduction zones).
9	Glacial and periglacial systems	Periglacial systems; impacts of Ice Ages in geological formations and erosions

10	Desert and semi-desert systems	Desert lakes and playas
11	Meteorite impacts	

Figure 6: Overview of current gaps on the World Heritage List as per the 11 themes of the revised global framework for the application of criterion (viii) of the World Heritage Convention.

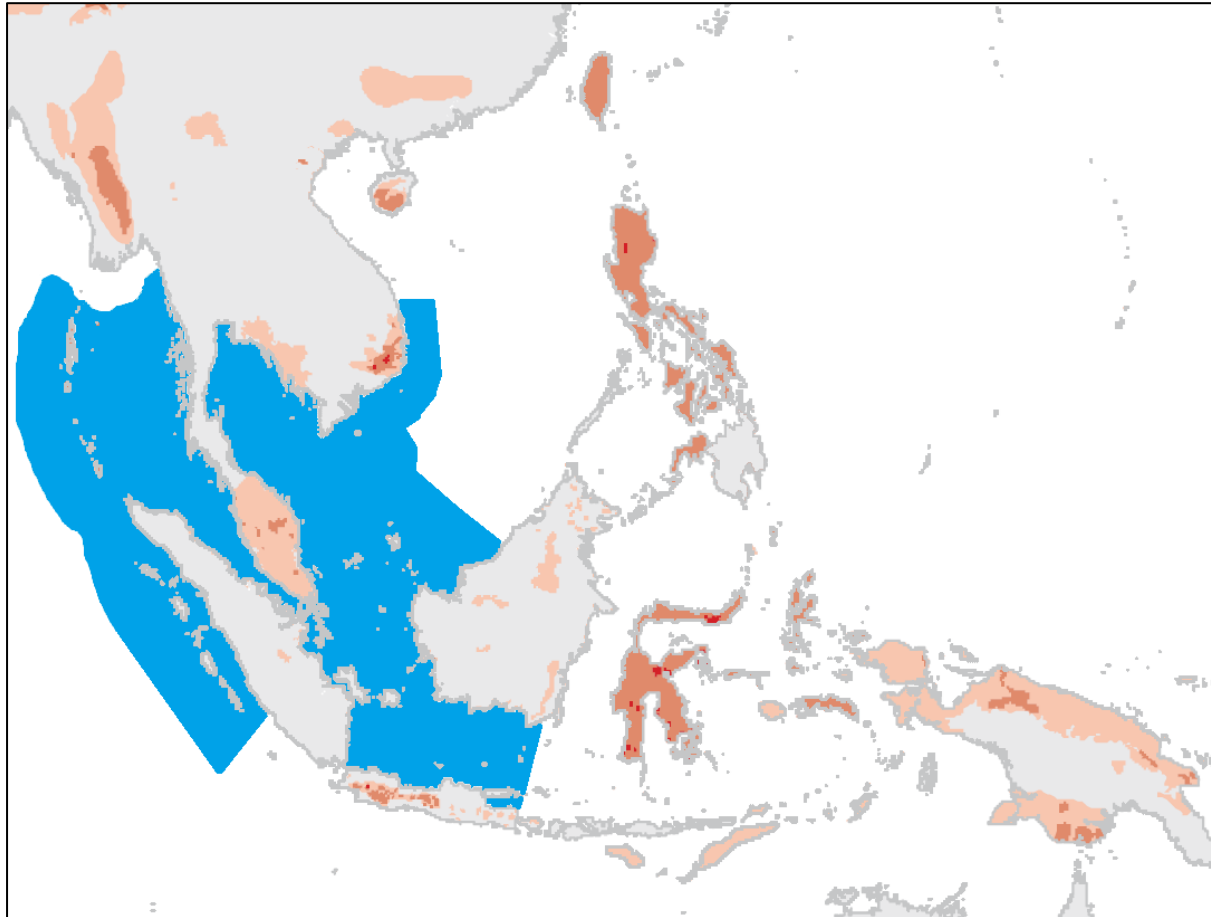


Figure 7: Summary of broad gaps in the coverage of biodiversity conservation priorities according to four terrestrial prioritization schemes (biodiversity hotspots and high-biodiversity wilderness areas, Global 200 terrestrial priority ecoregions, Centres of Plant Diversity, and Endemic Bird Areas). Colours range from light red (a gap according one approach) to dark red (a gap according to all four approaches). Adapted from Bertzky et al. (2013) and corrected for new inscriptions since: Phong Nha-Ke Bang (and Hin Nam No) (VIE/LAO) and Mount Hamiguitan Range Wildlife Sanctuary (PHI). Dark blue shaded areas are biogeographic marine provinces without nearshore World Heritage sites. Adapted from Spalding et al. (2007).

Another way to consider gaps is to look at ecosystem types currently not represented on the List. The IUCN Global Ecosystem Typology was developed in 2020 and considers 10 realms, 25 biomes, and 110 ecosystem functional groups (EFGs). From the 100 EFGs, 51 are not represented in the region considered for this study, and 19 of those 51 are also not represented across the entire network of natural World Heritage. Of those, especially the following are of particular relevance for the region as they could offer inspiration for new nominations:

- Marine animal forests (M1.5 – [see map](#)): in theory present in all coastal areas, in practice only in those coastal areas not impacted by trawling, pollution, development, etc.
- Deep sea features in trenches surrounding especially Indonesia, Philippines, and Timor-Leste: submarine canyons (M3.2 – [see map](#)), deepwater biogenic beds (M3.5 – [see map](#)), hadal (M3.6 – [see map](#)), chemosynthetic (M3.7 – [see map](#)).

In terms of species richness and endemism, IUCN previously considered this based on a 2013 dataset from Conservation International, looking at different taxonomic groups (plants, mammals, birds, reptiles, amphibians, freshwater fishes), Alliance for Zero Extinction sites (AZEs), Key Biodiversity Areas (KBAs), and Important Bird Areas (IBAs). AZEs and KBAs are now easily available, and regularly updated in IBAT, the world's most authoritative biodiversity database²⁹. IUCN has also developed the species rarity-weighted richness map which shows how many species occur in a given place, weighted by the relative importance of that place for each species. These spatial datasets can be used as indicator for biodiversity significance, total number of species in area/species richness, degree of endemism, and number of globally threatened species. They are underpinned by spatial range

estimates for many of the over 165,000 species assessed by the IUCN Red List.

Looking specifically at coral reefs, it was not possible to consider this in depth as there is currently no marine gap study looking at Marine Protected Areas, as exist for other biomes (eg. forest). It should be considered how to benefit from the expertise at the IUCN SSC Coral Specialist Group, and the data of the ongoing update of the [Status of Coral Reefs in the World](#) from the Global Coral Reef Monitoring Network (GCRMN) and International Coral Reef Initiative (ICRI).

Looking specifically at mangroves, some mangrove forests were considered in earlier gap studies on forests and wetlands and have been included further down if so. However, this ecosystem has not been looked at in detail when it comes to World Heritage potential, even if it is highly threatened. In 2024 IUCN found how 50 percent of Mangrove Ecosystems units are at risk of collapse, including in South-East Asia³⁰. Such information could help strengthen the justification of OUV by demonstrating global significance and vulnerability for transboundary World Heritage nominations focused on mangroves. Integrating IUCN Red List of Ecosystems indicators into monitoring could also improve long-term evaluation of ecological integrity and resilience of inscribed properties. The IUCN Red List of Ecosystems evaluates whether ecosystems have reached the final stage of degradation (a state of Collapse), whether they are threatened at Critically Endangered, Endangered or Vulnerable levels, or if they are not currently facing significant risk of collapse (Least Concern)³¹. At the time of writing this report IUCN Red List of Ecosystems assessments were only available for 1 of the 10 countries considered (Myanmar).

For Viet Nam, Cambodia and Thailand, data were also considered from the National Ecosystem Assessments (NEA), part of the Biodiversity and Ecosystem Services Network,

²⁹ [IBAT](#)

³⁰ [Red List of Mangrove Ecosystems | IUCN](#); IUCN has also started to assess full ecosystem functional

groups, so far only mangroves have been fully assessed.

³¹ <https://assessments.iucnrl.org/>

a partnership between UNDP, UNESCO and UNEP-WCMC ([BES-Net](#)).

Cultural values

Context

Only 41 of the 1248 World Heritage properties are mixed properties, including only one in South-East Asia, the Trang An Landscape Complex (Viet Nam). Mixed properties are inscribed under both at least one cultural criterion and at least one natural criterion, because they meet both criteria independently. Meanwhile the Outstanding Universal Value of cultural landscapes arises not from their cultural or natural qualities assessed independently but from the inter-relationship between culture and nature. Cultural landscapes are identified under the cultural criteria. Such properties often have natural values, but do not necessarily meet the OUV threshold for natural criteria. In the cases where they do, the property will be inscribed as a mixed property and a cultural landscape³².

While there is little guidance available specifically for mixed properties, IUCN and ICOMOS have created new methods of recognition and support for the interconnected character of the natural, cultural and social value of highly significant land and seascapes and affiliated biocultural practices³³.

What this means for South-East Asia

South-East Asia is characterized by strong biocultural landscapes where natural and cultural values are deeply intertwined. World Heritage properties provide an important platform to safeguard both biodiversity and cultural traditions. As a global biodiversity hotspot, many cultural World Heritage properties in South-East Asia also hold important natural values, even if they have not been inscribed on the World Heritage List under the natural criteria. A first international inventory of superlative natural sites (1982) identified 31 areas under the Indo-Malayan

realm of which today three have been recognized for their cultural values only:

- Island of Bali: represented in the “Cultural Landscape of Bali Province: the Subak System as a Manifestation of the Tri Hita Karana Philosophy” (Indonesia), inscribed in 2012;
- Angkor Wat National Park: represented in “Angkor” (Cambodia), inscribed in 1992;
- Niah Cave: represented in “The Archaeological Heritage of Niah National Park’s Caves Complex” (Malaysia), inscribed in 2024.

Similarly, several of the currently 14 World Heritage properties inscribed for natural values only also hold cultural values, such as the spiritual importance of the Komodo dragon for local communities. Oftentimes it is simply not possible to disentangle natural and cultural values, including from the perspectives of Indigenous Peoples and local communities but also culturally in Asia.

Some opportunities to explore synergies with other UNESCO Conventions might include:

Linkages with Intangible Cultural Heritage elements:

- Silat (Malaysia), a fine practice of physical and spiritual training of which there are many styles inspired by the movements of human anatomy, nature and animals. For example, Silat Harimau (Tiger) is inspired by the movement of tiger been creatively forms the art of self-defence and attack by initiating a tiger in positioning one's hands, legs and body texture movement.
- The Darangen epic of the Maranao people of Lake Lanao (Philippines), since Lake Lanao is also a KBA, and already protected as a watershed reservation.
- Pinisi, art of boatbuilding in South Sulawesi (Indonesia), viewed in a site that tells the story of trade relations, sultanates and flourishing biodiversity.

³² UNESCO / ICCROM / ICOMOS / IUCN. 2011. Preparing World Heritage Nominations (Second

edition, 2011) Published in November 2011 by UNESCO.

³³ [Connecting nature and culture | IUCN](#)

Overlap of cultural and natural values:

- The Cardamom Mountains Moist Forest (Cambodia) is of high biodiversity value and includes cave temples along the coast.
- Mount Popa (Myanmar): a dormant volcano (highlighted in the 2019 volcanoes gap study) which is connected to many temples and relic sites.

Recognizing and promoting biocultural linkages in World Heritage nominations can help preserve both natural ecosystems and traditional knowledge, strengthening community stewardship while ensuring that conservation outcomes remain inclusive and culturally grounded. Traditional knowledge and cultural practices, often rooted in centuries of coexistence with nature, can provide powerful tools for sustaining and restoring biodiversity. This is particularly important in production landscapes, which are frequently identified as one of the greatest threats to area-based conservation and Protected and Conserved Areas. By drawing on these time-tested practices alongside modern conservation strategies, there is potential to transform production landscapes from sites of pressure into spaces that contribute to biodiversity preservation.

Identification of possible priorities for extensions

For 7 of the 15 existing World Heritage properties considered in this study, a potential for the extension of the boundaries has been highlighted by IUCN, either at the time of nomination, or as part of the ongoing monitoring of properties' state of conservation. One of those concerns the inscription of Hin Nam No National Park (Lao PDR), which in 2025 was added as an extension to the bordering Phong Nha-Ke Bang National Park (Viet Nam). IUCN recommended in 1999 that both areas be part of a transboundary site to protect important karst areas in Southern Asia.

The six other properties include:

- Tropical Rainforest Heritage of Sumatra (Indonesia)
- Gunung Mulu National Park (Malaysia)
- Tubbataha Reefs Natural Park (Philippines)
- Thungyai-Huai Kha Khaeng Wildlife Sanctuaries (Thailand)
- Dong Phrayayen-Khao Yai Forest Complex (Thailand)
- Kaeng Krachan Forest Complex (Thailand)

There is also Three Parallel Rivers of Yunnan Protected Areas (China) for which IUCN, at the time of inscription in 2003, noted the potential for a future transboundary extension to include similar areas in Myanmar.

Country overview of possible priority sites, regions and features

This section brings together all the information considered earlier, organised per country. It is a non-exhaustive list with examples of priorities and opportunities, including:

- Opportunities for extensions of existing properties, including transboundary, as well as areas already on a Tentative List that are also KBA or hold other important values already documented.
- Areas identified in at least one IUCN gap study which are located in a biogeographic gap, and which are already on a Tentative List.
- Areas identified in at least one IUCN gap study which are located in a biogeographic gap, and which are not on a Tentative List.
- Areas which have been identified in at least two IUCN gap studies, and which are not on a Tentative List.

When the areas above overlap with existing international designations (eg. Biosphere Reserves, Global Geoparks, ASEAN Heritage Parks, Ramsar) this is mentioned, as it might mean such areas are better prepared to develop a nomination, some of the existing information could be re-used, or there could be other synergies between geoheritage, biodiversity conservation, and cultural traditions, while also supporting sustainable tourism development.

For each country a specific focus has also been given to the marine/coastal realm. While many terrestrial protected areas have been specifically highlighted in IUCN gap studies, this is not the case for marine protected areas.

For some countries more priorities have been identified than others in earlier gap studies, and the number of examples highlighted here is without prejudice whatsoever to the number of World Heritage properties each country might wish to consider for nomination.

Ha Long Bay - Cat Ba Archipelago. © Ta Văn Dũng / Center of Culture, Information and Sports of Cat Hai district



Malaysia

Malaysia currently has 2 natural/mixed World Heritage properties (Kinabalu Park (1) and Gunung Mulu National Park (2)), as well as 5 sites on its Tentative List (TL) (of which 2 proposed for natural values) (Map 1). Since 1982, IUCN reports and publications have identified about 10 areas in Malaysia with World Heritage potential.

Overview of possible priority/opportunity and justification

TAMAN NEGARA NATIONAL PARK (3)

The park is a KBA, Centre of Plant Diversity, and important for many species. It could represent a biogeographical province currently not on the List which has been identified as a priority for decades (Peninsular Malaysia Lowland and Montane Forests). It has been identified in IUCN Gap Studies, on Malaysia's TL since 2014, already an ASEAN Heritage Park, and has already a protection mechanism. There are also opportunities for serial extensions.

CAMERON HIGHLANDS (4)

The mountain range covers a KBA, AZE and important for many species. It could represent a biogeographical province currently on the List which has been identified as a priority for decades. Some of its areas have been, in a general way, identified in IUCN Gap Studies. Some parts are already a national park included on Malaysia's TL.

BATANG AI NATIONAL PARK (5)

The park is a KBA, Centre for Plant Diversity, EBA, and important for many species. It has been identified in IUCN Gap Studies and already has a protection mechanism. Not on Malaysia's TL. There are also opportunities for serial extensions, including transboundary with Indonesia (Danau Sentarum National Park and Betun Kerihun National Park – on Indonesia's TL).

GUNUNG MULU NATIONAL PARK (2)

Already a World Heritage property but with opportunities for extension, including Gunung Buda National Park and a transboundary extension to include Labi Forest Reserve in Brunei, the latter which is also a KBA.

MARINE AND COASTAL

Almost all of Malaysia's coastline and marine waters are part of the Sunda Shelf marine biogeographic region, currently not represented on the World Heritage List. A detailed gap analysis of marine areas is not available (contrary to eg. for terrestrial areas) so would require careful consideration of the type of values. Noting that coral reefs are already highly represented on the List, a combination of cultural considerations and geological criteria might be recommended. Potential to check for a transboundary, serial site include Tioman Island (AZE) (6) and Pulau Natuna (KBA) (7).

SABAH (8)

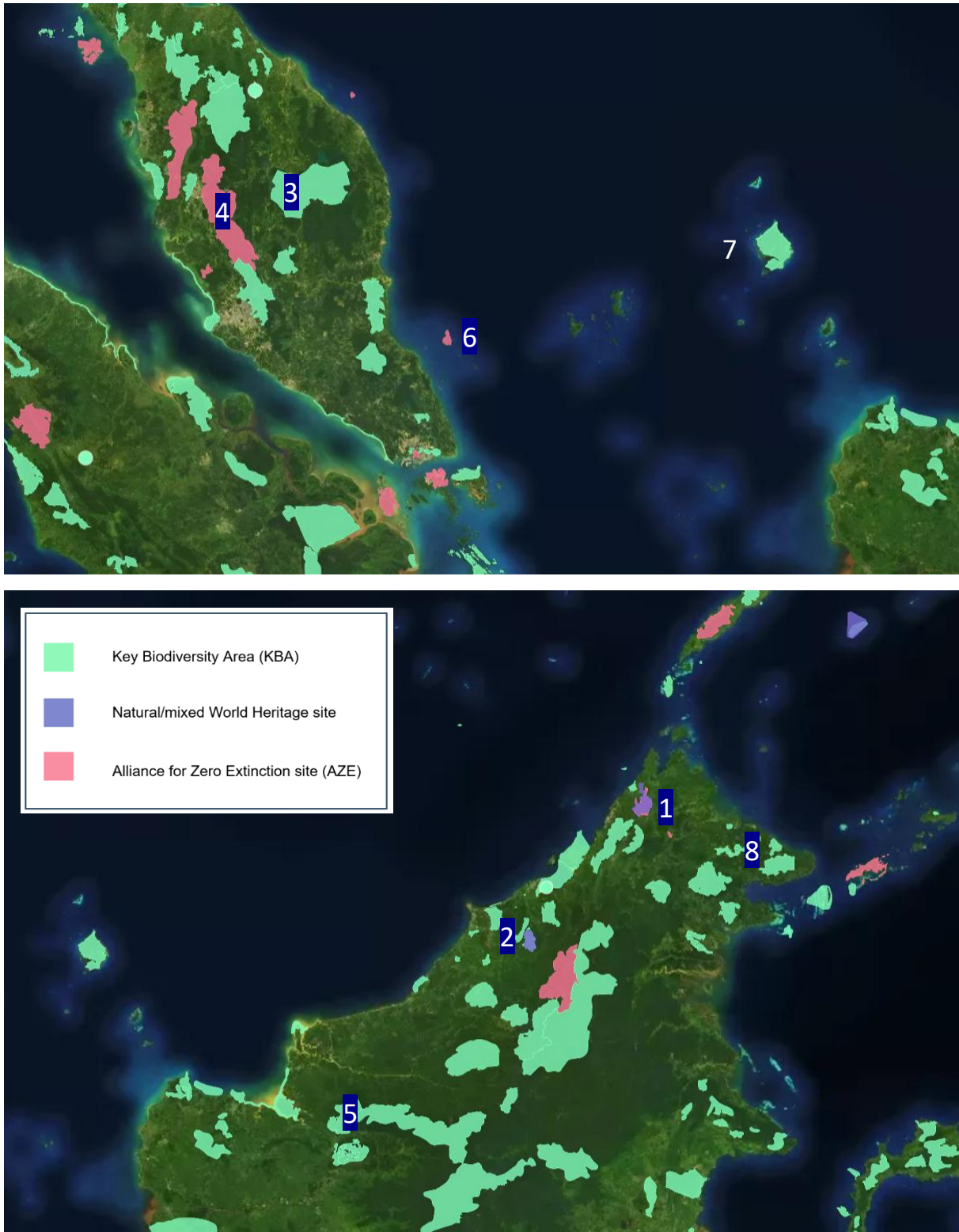
Although this region already has a property (Kinabalu), several areas have been identified in earlier gap studies which are also KBAs, including Tabin Wildlife Reserve, Tawau Hills Park, and the Kinabatangan Floodplain.

See full disclaimer in Annex 2.

Singapore

Singapore currently has 0 natural/mixed World Heritage properties (note that the Singapore Botanic Gardens is a cultural landscape), as well as 1 site on its Tentative List proposed for cultural values. IUCN reports and publications on potential World Heritage properties have not included areas in Singapore to date.

See full disclaimer in Annex 2.



Map 1: Possible priorities / opportunities for areas with World Heritage quality in Malaysia. Numbers referenced in text. Source: IBAT.

Philippines

The Philippines currently has 4 natural/mixed World Heritage (WH) properties (Map 2), as well as 25 sites on its Tentative List (TL) (of which 16 proposed for natural values). Since 1982, IUCN reports and publications have identified 3 areas in Philippines to have WH potential, including the Rainforests of Southern Mindanao (for which one representation has since been inscribed), a series of volcanoes, as well as Mount Banahaw – San Cristobal Protected Area. However, there must be high other potential, including because of the Philippine’s exceptional biodiversity, which could warrant a more specific country analysis. Such an analysis could start by considering existing National Geosites and KBAs.

Overview of possible priority/opportunity and justification

VOLCANIC SYSTEMS

Several volcanic systems have been highlighted in earlier gap studies (Pinatubo, Mayon, Taal) as underrepresented on the List for several themes of criterion (viii) (eg. arc volcano, Philippine archipelago island arc). Taal volcano has been subject to a Preliminary Assessment in 2025. Observations and studies of the explosive 1966 eruption of the Pinatubo revolutionized understanding about volcanic eruptions. Several volcanoes and volcanic (cultural) landscapes are already on Philippine’s TL, and one of those (Taal Volcano Protected Landscape) (4) is also a KBA.

MOUNT HAMIGUITAN RANGE WILDLIFE SANCTUARY (3)

Already a WH property but with opportunities for extension. In 2004, IUCN and the World Heritage Committee encouraged to consider future nominations of suitable areas on Mindanao which fall within the biologically significant Philippines Biodiversity Hotspot and the Mount Kitanglad Centre of Plant Diversity³⁴. The extension with Pujada Bay is on

Philippines’ TL. There might also be opportunities for nature-culture connections, eg. the Darangen epic of the Maranao people of Lake Lanao (ICH), since Lake Lanao (5) is also a KBA, and already protected as a watershed reservation.

MOUNT BANAHAW – SAN CRISTOBAL PROTECTED AREA (6)

This area was highlighted in the 2013 Terrestrial gap study because it was both among the top 100 protected areas for all species, and for threatened species. The area is a KBA and already a national park. It is not on Philippines’ TL.

MARINE AND COASTAL

Almost all of Philippines’ coastline and marine waters are part of the Western Coral Triangle marine biogeographic region, which already includes 3 WH properties with a coastal/marine component. And even while coral reefs are already highly represented on the List, the exceptional biodiversity of the coral reef triangle might provide additional opportunities. A detailed gap analysis of marine areas is not available (contrary to e.g. for terrestrial areas). A combination with geological criteria might be recommended. Potential to check for a transboundary, serial site include Apo Reef (KBA) (7) and Batanes Islands (KBA) (8), and also Important Marine Mammal Areas (IMMAs) and Important Shark and Ray Areas (ISRAs). In 2009, IUCN also noted a possible extension of Tubbataha to include Bastera Reef if a solution could be found to cover patrolling costs of the remote reef.

OTHER

Deep sea features (see page 15); Cave systems (noting the country’s priority that at least 0.5% of the classified caves are nominated as outstanding heritage³⁵); Philippines Moist Forest ecoregion.

See full disclaimer in Annex 2.

³⁴ [Decision 38 COM 8B.8](#)

³⁵ Biodiversity Strategy and Action Plan 2015 – 2028



Map 2: Possible priorities / opportunities for areas with World Heritage quality in Philippines. Numbers referenced in text except existing World Heritage sites: Tubbataha Reefs Natural Park (1), Puerto-Princesa Subterranean River National Park (2), Mount Hamiguitan Range Wildlife Sanctuary (3). Source: IBAT.

Indonesia

Indonesia currently has 4 natural/mixed World Heritage sites (Map 4), as well as 21 sites on its Tentative List (TL) (of which 9 proposed for natural values). Since 1982, IUCN reports and publications have identified over 30 areas in Indonesia to have World Heritage potential.

Overview of possible priority/opportunity and justification

SULAWESI MOIST FORESTS

One of 12 global priority areas identified in the 2013 terrestrial gap study. Two specific protected areas were highlighted:

- Karakelang Utara dan Selatan (AZE, existing protection as a wildlife reserve) (5). Note that the surrounding marine area is a KBA;
- Lore Lindu (AZE, existing protection as National Park, also highlighted in 2003 forest gap study) (6).

The 2000 protected area gap study highlighted:

- Bogani Nani Nartabone National Park (KBA, Centre of Plant Diversity, EBA) (7);
- Morowali Nature Reserve (AZE) (8);
- Tanjung Peropa (Buton Utara Wildlife Reserve, KBA) (9).

MOLLUCAS MOIST FORESTS (BURU, HALMAHERA AND SERAM RAINFORESTS ECOREGIONS)

The 2013 forest gap study highlighted the Manusela National Park (10) as a priority. It is also a AZE.

WESTERN JAVA MONTANE FORESTS

The 2000 protected area gap study identified two areas in this non represented ecoregion:

- Gunung Simpang (KBA, nature reserve) (11);
- Gunung Gede – Pangrango National Park (Centre of Plant Diversity, EBA, AZE) (12).

MARINE AND COASTAL

Large parts of Sumatra and Java's coastline and marine waters are part of the Sunda Shelf marine biogeographic region, currently not represented on the World Heritage List. A detailed gap analysis of marine areas is not available (contrary to eg. for terrestrial areas) so would require careful consideration of the type of values. Noting that coral reefs are already highly represented on the List, a combination of cultural considerations and geological criteria might be recommended. Siberut National Park (13) was highlighted in earlier studies but not specifically for its marine area.

Other areas in Indonesia are part of marine biogeographic regions which already include World Heritage sites (Western Coral Triangle, Java Transitional, Sahul Shelf). In those regions the following areas have been highlighted in earlier studies:

- Take Bone Rata (2013 terrestrial and 1997 wetlands gap study; marine national park; note that although the park is not a KBA, the nearby Selayar Island and Kalaotao Island are, while nearby Tanah Jampea island is a AZE) (14), on Indonesia's TL.

Also on Indonesia's TL are the Wakatobi National Park (KBA, IMMA, ISRA) (15), Bunaken National Park (KBA) (16), Raja Ampat Islands (some of which are KBA, AZE), Banda Islands (KBA) (17).

There might be opportunities for transboundary collaboration with India (Andaman and Nicobar islands – part of Andaman ecoregion), or possible nature – culture linkages, eg. with ICH "Pinisi, art of boatbuilding in South Sulawesi".

PAPUA AND WEST PAPUA

- North Salawati (2000 gap study, KBA, nature reserve) (19);
- Arfak Mountains (2000 gap study, KBA, nature reserve) (20);

- Teluk Cendrawasih (some components highlighted in 2000 gap study, 1997 wetlands, 2013 terrestrial study; marine national park; no KBA; terrestrial components AZE) (21). Would require careful analysis marine vs terrestrial values;
- Japen Island (2013 gap study, KBA) (22);
- Meervlakte (1982 gap study) (23);
- Foja Mountains (1982 study, 2000 gap study, KBA, wildlife refuge) (24);
- Krau region (2000 gap study, unclear if refers to existing KBA or AZE) (25).

TROPICAL RAINFOREST HERITAGE OF SUMATRA (3)

At the time of inscription in 2004, IUCN recommended to include other Leuser Ecosystem protected lands surrounding Gunung Leuser National Park (GLNP), particularly the Singkil Barat Wildlife Reserve, Langsa lowlands and foothills, Aceh Highlands and the Tapaktuan lowlands.³⁶ In 2009 the World Heritage Committee requested Indonesia to submit a significant boundary modification to incorporate some of the critical habitat beyond the borders of the GLNP, and develop appropriate buffer zones for the property. The 2024 IUCN Advisory Mission recommended, amongst others to consider 'critical corridors' that link different component parts of the property.

OTHER

- Betun Kerihun National Park (Indonesia's TL, KBA, EBA, Centre for Plant Diversity) (26), potentially in combination with Danau Sentarum National Park and Malaysia's Batang Ai National Park;
- Prehistoric Cave Sites in Maros-Pangkep (Indonesia's TL, Global Geopark) (27).

See full disclaimer in Annex 2.

³⁶ [Tropical Rainforest Heritage of Sumatra - Documents - UNESCO World Heritage Centre](#)

Brunei Darussalam

Brunei Darussalam currently has 0 natural/mixed World Heritage properties, as well as 0 sites on its Tentative List (TL) (Map 3). IUCN reports and publications have identified two areas in Brunei Darussalam to have World Heritage potential.

Overview of possible priority/opportunity and justification

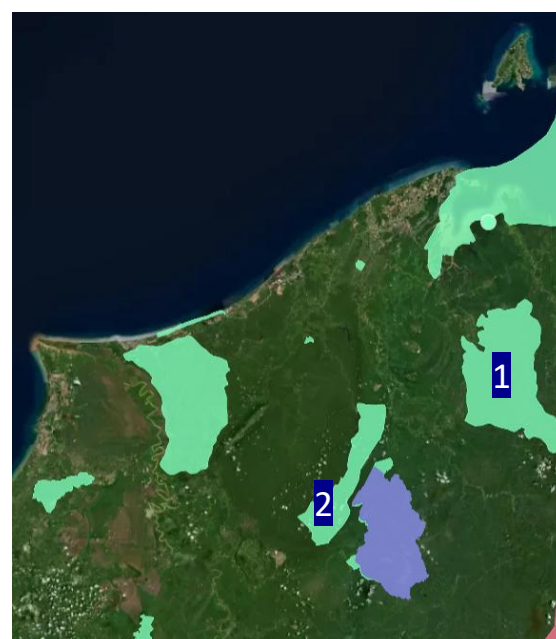
ULU TEMBURONG (1)

Area identified in the 2000 gap study. Is also a KBA and partially covered by a national park.

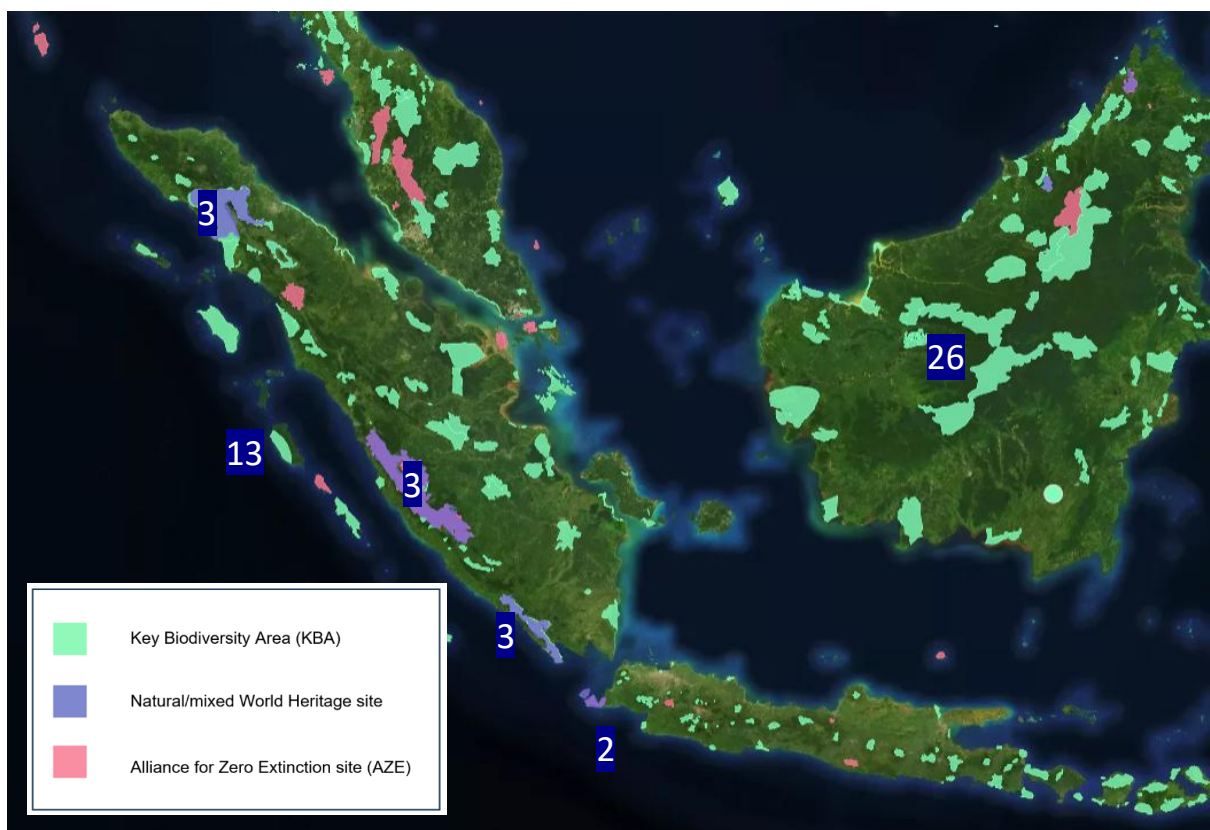
LABI FOREST RESERVE (2)

At the time of inscription of Malaysia's Gunung Mulu National Park in 2000, IUCN recommended to explore a transboundary extension to include Labi Forest Reserve in Brunei. Brunei had not yet ratified the Convention in 2000. Is also a KBA and partially covered by a forest reserve.

See full disclaimer in Annex 2.



Map 3: Possible priorities / opportunities for areas with World Heritage quality in Brunei Darussalam. Numbers referenced in text. Source: IBAT.



Map 4: Possible priorities / opportunities for areas with World Heritage quality in Indonesia. Numbers referenced in text. Existing World Heritage sites include Komodo National Park (1), Ujung Kulon National Park (2), Tropical Rainforest Heritage of Sumatra (3); and Lorentz National Park (4). Source: IBAT.

Viet Nam

Viet Nam currently has 3 natural/mixed World Heritage properties, as well as 7 sites on its Tentative List (TL) of which 4 proposed for natural values (Map 6). Of those four, two have already been subject to a draft nomination: Ba Be – Na Hang Natural Heritage Area (deferred in 2007) and Cat Tien National Park (withdrawn in 2010). Since 1982, IUCN reports and publications have identified three additional areas in Viet Nam to have World Heritage potential.

Overview of possible priority/opportunity and justification

ANNAMITE RANGE MOIST FOREST

This region includes both the Northern Annamites rain forests ecoregion (which includes the Phong Nha-Ke Bang National Park and Hin Nam No National Park) and the Southern Annamites montane rain forests, currently not represented on the List. This area was identified as priority in the 2013 gap study.

The 2000 gap study identified two areas in this ecoregion:

- Chu Yang Sin (KBA, AZE, partially covered by national parks) and the area (also called Lang Biang Plateau) was the only place in Viet Nam included in the 1982 gap study (5).
- Bach Ma (KBA) (6).

Cat Tien National Park (7) lies at the southernmost end of this ecoregion. It is a KBA, overlaps with a Ramsar site, and sits at the middle of a much larger Biosphere Reserve.

MARINE AND COASTAL

The Southern Viet Nam ecoregion is part of the Sunda Shelf marine province, currently not represented on the List. To date, no major KBAs have been identified in the Southern Viet Nam ecoregion, which includes the Con Dao archipelago (8) (ASEAN Heritage Park, Important Marine Mammal Area). **Coastal KBAs** (mainly wetlands and mangroves)

include Deo Ca – Hon Nua (9), Nui Chua (10), Can Gio (11), Binh Dai (12), Dat Mui (13), Kien Giang (14), Kien Luong (15) (IMMA).

OTHER

- Cuc Phuong (16): 2000 gap study, KBA. Note that this area is near the Trang An Landscape Complex (inscribed for criteria (v), (vii), (viii)) which IUCN recommended to defer in 2014 because of issues with the boundaries and buffer zone.
- Viet Nam's TL also includes other areas which do not feature on any gap list: Ba Be – Na Hang Natural Heritage Area (KBA) (17), The Area of Old Carved Stone in Sapa (might overlap with AZE, KBA) (18), Huong Son Complex of Natural Beauty and Historical Monuments (19).

See full disclaimer in Annex 2.

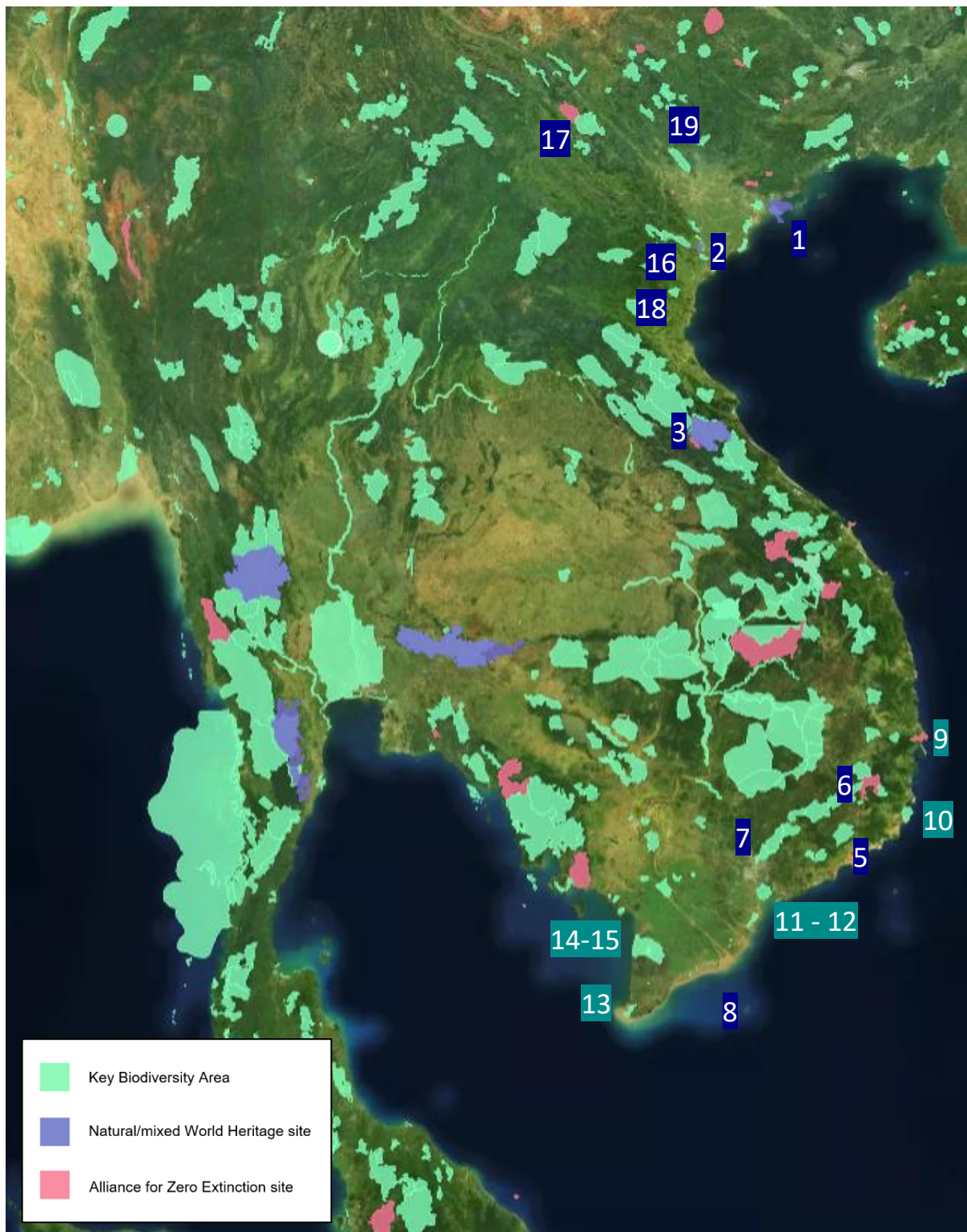
Timor-Leste

Timor-Leste currently has 0 natural/mixed World Heritage properties, as well as 0 sites on its Tentative List (TL) (Map 5). IUCN reports and publications on potential World Heritage properties have not included areas in Timor-Leste to date. It would be recommended to explore including components in a serial, transboundary World Heritage property that combines marine/coastal, cultural considerations and geological criteria. Other opportunities include:

- Deep sea features as highlighted under criterion (viii);
- Large parts of Timor Island are EBAs;
- Several KBAs, including Nino Konis Santana National Park and Jaco Island (1) (protected), Perairan Kepulauan Lemola (2) (unprotected).



Map 5: Possible priorities / opportunities for areas with World Heritage quality in Timor Leste. Source: IBAT.



Map 6: Possible priorities / opportunities for areas with World Heritage quality in Viet Nam. Numbers referenced in text. Existing World Heritage sites include Ha Long Bay - Cat Ba Archipelago (1); Trang An Landscape Complex (2); Phong Nha-Ke Bang National Park and Hin Nam No National Park (3). Source: IBAT.

Cambodia

Cambodia currently has 0 natural/mixed World Heritage properties, as well as 6 sites on its Tentative List (TL), none of which have proposed natural values (Map 7). Since 1982, IUCN reports and publications have identified two areas in Cambodia to have World Heritage potential, and others have since been inscribed (including Angkor Wat inscribed for cultural criteria only although proposed in the 1982 gap study for natural values).

Overview of possible priority/opportunity and justification

CARDAMOM MOUNTAINS MOIST FOREST (1)

This terrestrial ecoregion is not represented on the List, and identified as a priority in the 2013 gap study (under the name Elephant Mountains). The region is of high biodiversity value, covering several AZE and KBAs. There is also a small Ramsar site (Koh Kapi), and large parts are already protected as a national park or wildlife sanctuary. There might be potential for overlap with cultural values, including cave temples along the coast.

THE GREAT LAKE, TONLE SAP (2)

This area was highlighted in the 1997 wetland gap study. It is a KBA, includes three small Ramsar sites, and is also covered by a Biosphere Reserve. Some areas are protected as a multiple use area.

MARINE AND COASTAL

Cambodia's coastal and marine waters are part of the Gulf of Thailand marine ecoregion (Sunda Shelf province), which is not represented on the List. A detailed gap analysis of marine areas is not available (contrary to eg. for terrestrial areas) so would require careful consideration of the type of values. Noting that coral reefs are already highly represented on the List, a combination of cultural considerations and geological criteria might be recommended. Few areas along Cambodia's coast are currently protected.

BANTEAY CHMOR PROTECTED LANDSCAPE (3)

At the time of inscription of Thailand's Dong Phrayayen-Khao Yai Forest Complex in 2005, IUCN recommended to explore transboundary protected area between Thailand and Cambodia with regard to the Banteay Chmor Protected Landscape.

See full disclaimer in Annex 2.

Lao PDR

Lao PDR currently has 1 natural/mixed World Heritage property, as well as 2 sites on its Tentative List (TL) (including 1 proposed for natural values) (Map 7). Since 1982, IUCN reports and publications have included one additional area in Lao PDR with World Heritage potential, noting however that this not necessarily a comprehensive assessment.

Overview of possible priority/opportunity and justification

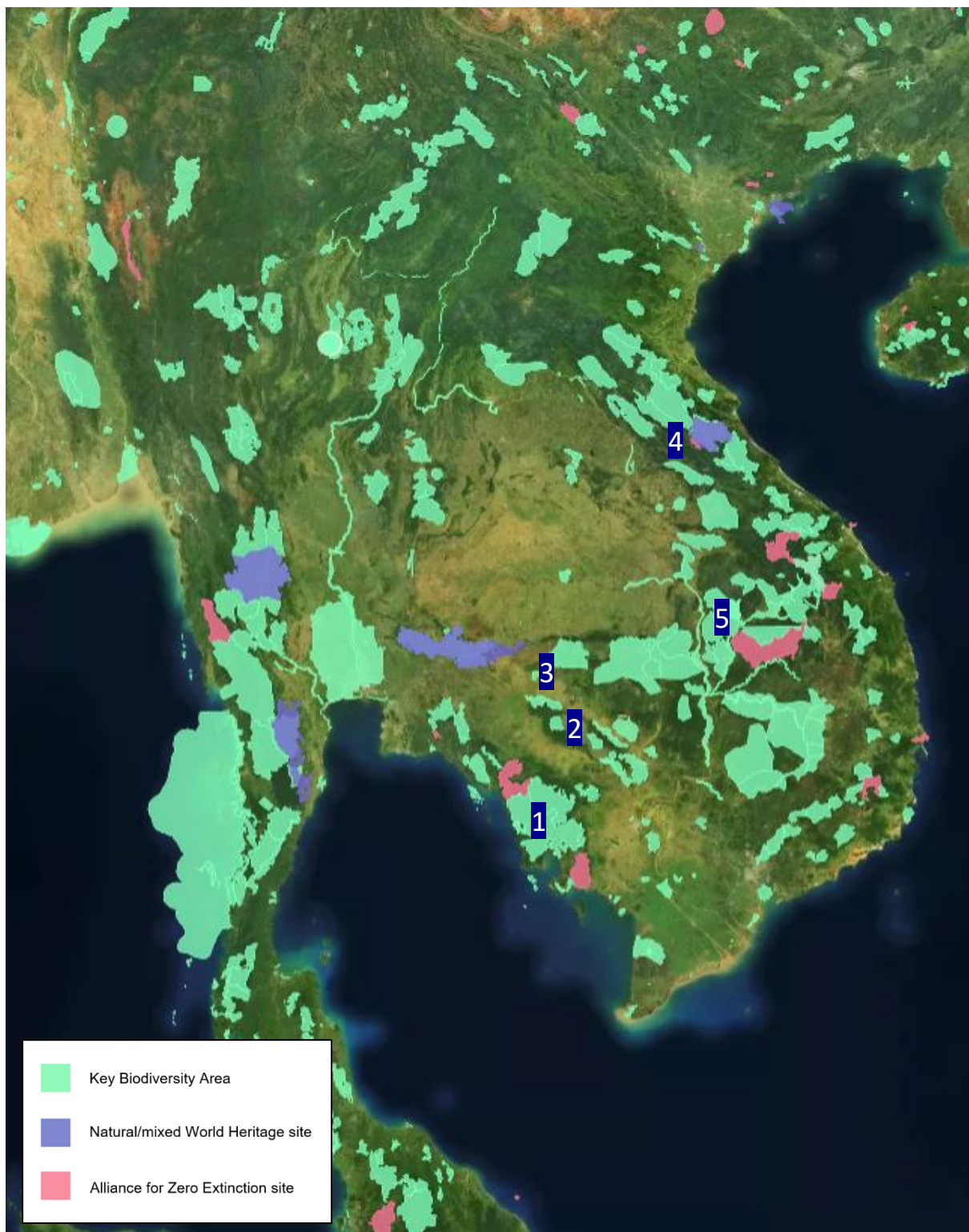
BOLOVENS PLATEAU (5)

The only place in LPDR included in the 1982 gap study. The same area was referred to in the 2003 gap study under the name 'Southern Laos Tropical Forest Reserves'. The region includes various KBAs and protected areas

OTHER

Although the Indo-Burma Biodiversity Hotspot and the Annamite Mountains are already represented on the World Heritage List, there are several other areas with exceptional species richness and high endemism which might have potential, including as extension to existing sites, eg. Nakai – Nam Theun National Park (added on TL in June 2025), one of the country's largest and most ecologically intact protected areas.

See full disclaimer in Annex 2.



Map 7: Possible priorities / opportunities for areas with World Heritage quality in Cambodia and LPDR. Existing World Heritage sites include Phong Nha-Ke Bang National Park and Hin Nam No National Park (4). Numbers referenced in text. Source: IBAT.

Myanmar

Myanmar currently has 0 natural/mixed World Heritage properties, as well as 15 sites on its Tentative List (TL), including 8 which have proposed natural values (Map 8). Since 1982, IUCN reports and publications have identified several areas in Myanmar to have World Heritage potential.

Overview of possible priority/opportunity and justification

TENASSERIM-SOUTH THAILAND SEMI-EVERGREEN RAINFORESTS (1)

While this ecoregion is already represented with both Thailand's Kaeng Krachan Forest Complex and Thungyai-Huai Kha Khaeng Wildlife Sanctuaries, there is important potential for a transboundary extension, including the Taninthaya Forest Complex which has been on Myanmar's Tentative List since 2014. The area is a KBA and is home to several threatened species.

MOUNT POPA (2)

This dormant volcano was highlighted in the 2019 volcanoes gap study. There is perhaps potential for a mixed site connected to the many temples and relic sites. The area is also a KBA but not on Myanmar's TL.

IRRAWADDY RIVER FLOODPLAIN AND DELTA (3)

This area was highlighted in the 1997 wetland gap study. It is a KBA and includes a Ramsar site (Meinmahla Kyun Wildlife Sanctuary).

MARINE AND COASTAL

Myanmar's coastal and marine waters cover two marine ecoregion: the Northern Bay of Bengal (which already includes the Sundarbans), and the Andaman Sea Coral Coast (currently not represented). A detailed gap analysis of marine areas is not available (contrary to eg. for terrestrial areas) so would require careful consideration of the type of values. Noting that coral reefs are already highly represented on the List, a combination of cultural considerations and geological

criteria might be recommended. The Myeik Archipelago (4) is on Myanmar's TL, covers a large KBA, overlaps with an ISRA, and has potential for a transboundary site with areas in Thailand (note that 7 protected areas are on Thailand's TL under the name 'The Andaman Sea Nature Reserves').

OTHER

Opportunities linked with a transboundary extension to China's Three Parallel Rivers of Yunnan Protected Areas (5).

See full disclaimer in Annex 2.



Map 8: Possible priorities / opportunities for areas with World Heritage quality in Myanmar. Numbers referenced in text. Source: IBAT.

Thailand

Thailand currently has 3 natural/mixed World Heritage properties, as well as 7 sites on its Tentative List (TL), including one proposed for natural values (Map 8). Since 1982, IUCN reports and publications have identified several areas in Thailand which have already been inscribed on the World Heritage List.

Overview of possible priority/opportunity and justification

MARINE AND COASTAL

Thailand's coastal and marine waters are part of two marine ecoregions: Andaman Sea Coral Coast (Andaman province) and Gulf of Thailand (Sunda Shelf province), which are both not represented on the List. A detailed gap analysis of marine areas is not available (contrary to eg. for terrestrial areas) so would require careful consideration of the type of values. Noting that coral reefs are already highly represented on the List, a combination of cultural considerations and geological criteria might be recommended.

The Andaman Sea Nature Reserves (4) is on Thailand's TL, which includes 7 protected areas and national parks (NP):

- Mu Ko Ranong NP (overlaps with Ramsar, Biosphere Reserve)
- Laem Son NP (overlaps with Ramsar)
- Ranong Mangrove
- Mu Ko Surin NP (KBA)
- Mu Ko Similan NP (KBA)
- Khao Lampi-Hat Thai Mueang NP (potential overlap KBA)
- Sirinat NP

It would be highly recommended to explore a transboundary site with Myanmar, as the Myeik Archipelago is in the same ecoregion, covers a very large KBA, and already on Myanmar's TL.

There is likely also other potential from Phang Nga Bay to the south, including Phang Nga Bay

Mangrove Forest (KBA, Ramsar) (6), Krabi Estuary (KBA, Ramsar) (7) or Hat Chao Mai - Trang River Estuaries (KBA, Ramsar) (8). Several of these areas also overlap, or are adjacent to, Important Shark and Ray Areas (ISRAs), and potentially also Important Marine Mammal Areas (IMMAs).

HALA BALA (5)

Identified in the 2003 gap study. The region includes several KBAs and protected areas (wildlife sanctuary). There might be potential for transboundary conservation with Malaysia if the issues in the border-region allow.

THUNGYAI-HUAI KHA KHAENG WILDLIFE SANCTUARIES (1)

At the time of inscription in 1991, IUCN highlighted the possibilities for future extensions including Khao Laem National Park, as well as adjacent borders in Myanmar for a future transboundary site.

DONG PHAYAYEN-KHAO YAI FOREST COMPLEX (2)

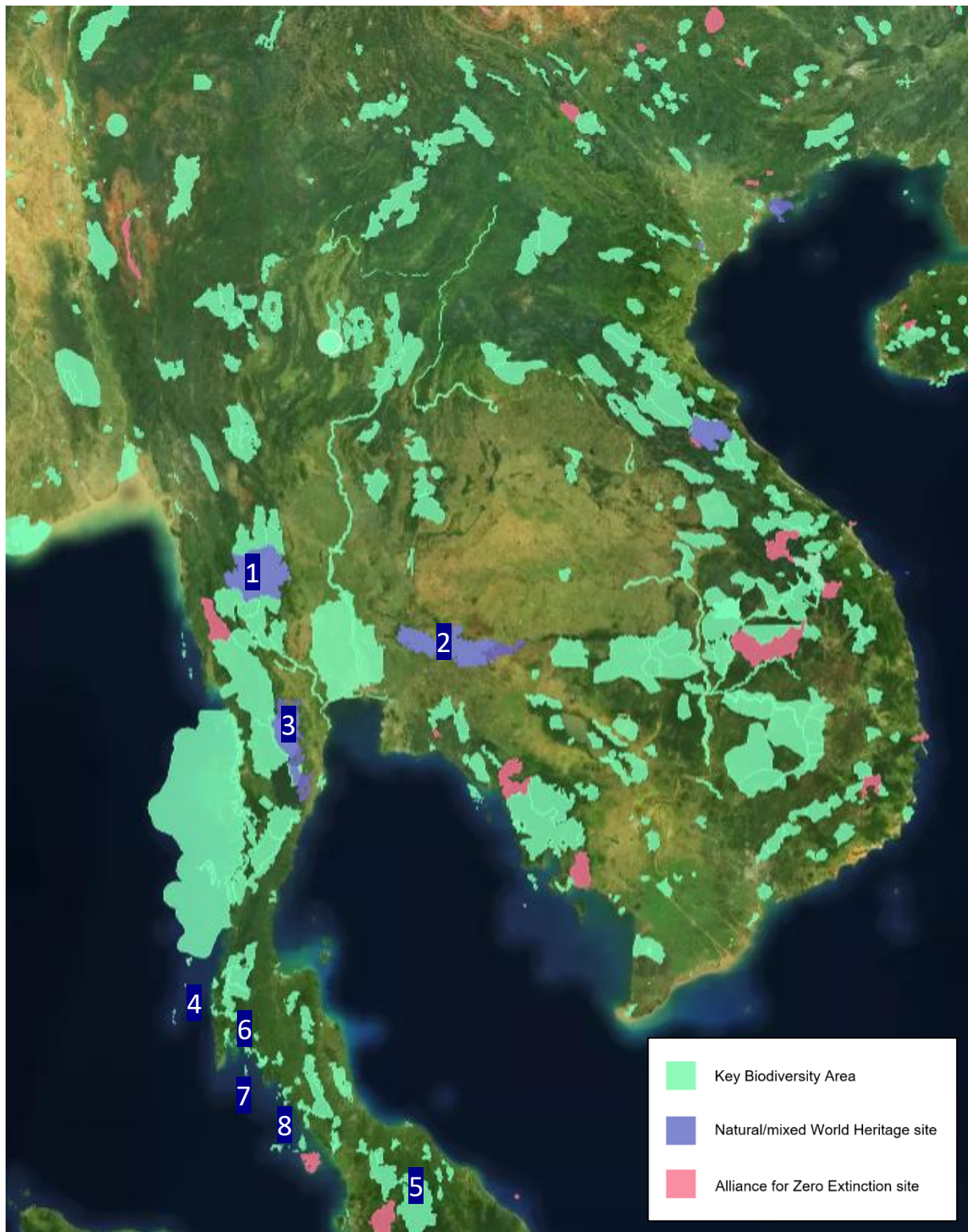
At the time of inscription in 2005, IUCN highlighted the opportunities for transboundary cooperation between Thailand and Cambodia with regard to the Banteay Chmor Protected Landscape.

KAENG KRACHAN FOREST COMPLEX (3)

At the time of inscription in 2021, IUCN noted the potential for a transboundary extension of forests in Myanmar, including the Taninthaya Forest Complex which has been on Myanmar's TL since 2014. A 2022 Advisory Mission also recommended to assess all options to maintain and restore the connectivity between Kaeng Krachan Forest Complex and Thungyai-Huai Kha Khaeng Wildlife Sanctuaries and the wider WEFCOM, including the feasibility of an extension to KKFC to the north to incorporate current forest reserves.³⁷

See full disclaimer in Annex 2.

³⁷ [Mission report of the IUCN advisory mission to Kaeng Krachan \(Thailand, 21-28 Nov.2022\)](#)



Map 8: Possible priorities / opportunities for areas with World Heritage quality in Thailand. Existing World Heritage sites include Thungyai-Huai Kha Khaeng Wildlife Sanctuaries (1), Dong Phrayayen-Khao Yai Forest Complex (2) and Kaeng Krachan Forest Complex (3). Numbers referenced in text. Source: IBAT.

Other recommendations

Dedicated gap studies

This work has primarily compiled World Heritage opportunities from existing gap studies and frameworks developed since 1982 and combined those with a spatial analysis. However, some criteria of OUV (e.g. criterion (viii)) and some ecosystems (e.g. marine) have been less studied. Both new and updated thematic gap studies might reveal more potential opportunities under natural criteria for World Heritage nominations in South-East Asia. Those studies include:

- A gap study looking specifically at marine / coastal features in South-East Asia. This could include a “short list” of the most unique or pristine areas already protected building on the expertise of the IUCN World Commission of Protected Areas (WCPA). It could also look at a combination of biodiversity values with geological values which are of high potential for the region but have not been assessed in detail.
- A gap study looking specifically at seabird hotspots and areas important for migratory bird flyways, or other migratory species which are globally unique and could be protected through a serial, transboundary site.
- A gap study looking specifically at corals. The 1991 gap study already highlighted how reefs in South-East Asia are high in diversity but low in endemism, and many coral reef species have very large ranges, so coral reef uniqueness could be difficult to characterize. It could be useful to look at size, isolation, diversity, endemism, etc. to consider criteria to prioritize certain coral reefs. Some scientific studies also indicate that coral reefs in the Coral Reef Triangle are among the most climate resilient in the world, which would make their protection even more urgent. A coral reef gap study

should involve the IUCN Species Survival Commission Coral Specialist Group, as well as data from ICRI / Global Coral Reef Monitoring Network (a report which is expected to be available in 2026).

- A gap study looking specifically at mangroves, as well as the freshwater ecoregion.
- A gap study looking specifically at endemism since endemism is so high especially on islands and archipelagos.

Synergies between World Heritage and the ASEAN Heritage Parks

The ASEAN Heritage Parks (AHPs) programme designates protected areas of regional importance that embody ecological, cultural, and recreational values. Only a few ASEAN Heritage Parks are also (partially) World Heritage, including Tubbataha Reefs National Park (Philippines) or Gunung Leuser (Indonesia). Establishing a stronger linkage between the ASEAN Heritage Parks network and the World Heritage Convention could elevate regional cooperation, improve conservation standards, and raise the global profile of South-East Asian protected areas. A regional initiative to review AHPs for potential World Heritage nomination could help streamline capacity-building, harmonize management standards, and provide a pipeline of well-prepared candidate sites.

Acknowledgements

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**

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Annex 1: Consulted IUCN literature.

This includes Guidance Documents, Thematic Gap Studies and Regional Gap Studies considered for this analysis.

Guidance documents

- [*Geological World Heritage – A revised global framework for the application of criterion \(viii\) of the World Heritage Convention* \(2021\)](#)
- [*Comparative analysis methodology for World Heritage nominations under biodiversity criteria* \(2014\)](#)
- [*Geological World Heritage: a global framework : a contribution to the global theme study of World Heritage Natural Sites* \(2005\)](#)
- [*Guidelines for geoconservation in protected and conserved areas* \(2020\)](#)
- [*Study on the application of criterion \(vii\) : considering superlative natural phenomena and exceptional natural beauty within the World Heritage Convention* \(2013\)](#)

Thematic Gap Studies

- [*World Heritage Volcanoes: classification, gap analysis and recommendations for future listings* \(2019\)](#)
- [*World heritage, wilderness, and large landscapes and seascapes* \(2017\)](#)
- [*Terrestrial Biodiversity and the World Heritage List: Identifying broad gaps and potential candidate sites for inclusion in the natural world heritage network* \(2013\):](#)
- [*Marine Natural Heritage and the World Heritage List: Interpretation of World Heritage Criteria in marine systems, analysis of biogeographic representation of sites, and a roadmap for addressing gaps* \(2013\)](#)
- [*World Heritage Desert Landscapes: potential priorities for the recognition of desert landscapes and geomorphological Volcanoes* \(2011\)](#)
- [*World Heritage volcanoes: A thematic study. A global review of volcanic World Heritage properties: present situation, future prospects and management requirements* \(2009\)](#)
- [*World Heritage caves and karst: a thematic study of sites on the World Heritage List* \(2008\)](#)
- [*Gaps and opportunities for the World Heritage Convention to contribute to global wilderness conservation* \(2017\)](#)
- [*World Heritage Forests: Leveraging Conservation at the Landscape Level* \(2005\):](#)
- [*Review of the World Heritage network: biogeography, habitats and biodiversity* \(2004\)](#)
- [*The World Heritage List: future priorities for a credible and complete list of natural and mixed sites* \(2004\)](#)
- [*A global overview of mountain protected areas on the World Heritage List* \(2002\)](#)
- [*A global overview of wetland and marine protected areas on the World Heritage List* \(1997\)](#)

- [*Earth's geological history: a contextual framework for assessment of World Heritage fossil site nominations* \(1996\)](#)
- [*The world's greatest natural areas: an indicative inventory of natural sites of world heritage quality* \(1982\)](#)

Regional Gap Studies

- [*Leveraging the World Heritage Convention for conservation in the Hindu Kush Himalaya* \(2021\)](#)
- [*World Heritage thematic study for Central Asia* \(2020\)](#)
- [*World Heritage thematic study for Central Asia: a regional overview* \(2005\):](#)
- [*Review of the World Heritage network: biogeography, habitats and biodiversity* \(2004\)](#)
- [*A global overview of protected areas on the World Heritage list of particular importance for biodiversity* \(2000\)](#)
- [*Which oceanic islands merit World Heritage status? A short feasibility study* \(1991\)](#)

Annex 2: Disclaimer

The views expressed here do not necessarily reflect those of IUCN, UNESCO or other participating organisations. The recommendations are without prejudice whatsoever to either the decision of any State Party to consider nominations on its territory, whether mentioned or not mentioned in this volume, or to the potential evaluation of IUCN's World Heritage Panel (or of the equivalent body in ICOMOS) regarding any future nomination of any property for World Heritage Property status.

This document identifies potential priorities based on currently available ecological, geological and species data only. It does not assess the presence of Indigenous Peoples and local communities, nor the status of their rights, governance systems, or relationships to land and resources. Many of the areas identified are likely to overlap with Indigenous lands and territories, whether customary or statutory. As such, these findings should not be interpreted as recommendations for nomination without further, site- and context-specific analysis. Any future consideration would require engagement with Indigenous Peoples and local communities and careful assessment of rights, access, governance, and values, and the application of free, prior and informed consent (FPIC), in accordance with international standards. Elements to consider for an actual nomination dossier, as well as further prioritization schemes, are further highlighted in the Enhancing our Heritage Toolkit 2.0 ([Enhancing our heritage toolkit 2.0 | IUCN Library System](#)).

The designation of geographical entities in this book, and the presentation of material do not imply the expression of any opinion whatsoever on the part of IUCN, UNESCO or other participating organisations concerning the legal status of any country, territory, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

All information presented in this document is likely to change in the future, including for what concerns Tentative Lists (regularly updated by States Parties) and existing World Heritage sites (as decided by the World Heritage Committee), but also for Key Biodiversity Areas (KBAs) and Alliance for Zero Extinction (AZE) sites which are being updated depending on available scientific information. A 2025 study even estimated that potentially half of the world's KBAs as yet unidentified ([Plumtre et al., 2025](#)). The marine realm remains understudied compared to the terrestrial realm and when there is enough supporting data potentially several [Important Shark and Ray Areas](#) (ISRAs), [Important](#)

[Marine Turtle Areas](#) (IMTAs), [Important Marine Mammal Areas](#) (IMMAs) and other areas might eventually become KBAs. In October 2025, IUCN and partners also announced the start of [a comprehensive update to the world's biodiversity hotspots](#).