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**BIODIVERSITY FOR SUSTAINABLE DEVELOPMENT:
DELIVERING RESULTS FOR ASIA AND THE PACIFIC**

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We would like to recognize the many development partners that have financed and contributed to the projects and programmes outlined in this publication. We extend special thanks to the Global Environment Facility (www.thegef.org).



BIODIVERSITY FOR SUSTAINABLE DEVELOPMENT

DELIVERING RESULTS FOR ASIA AND THE PACIFIC



Borneo red flying frog in mushroom (*Rhacophorus pardalis*), Borneo
Photo: Frans Lanting



FOREWORD

The Asia-Pacific region is both dynamic and diverse, covering 36 countries and territories. Tremendous progress has been made in terms of human and economic development over the last couple of decades. However, this progress has come at the cost of the biodiversity and ecosystems that support millions of lives and livelihoods in the region. Biodiversity is in decline in all types of ecosystem existing in the region, particularly in forests, rivers and oceans. The rate of species loss is almost twice the global average, and the occurrence of natural and man-made disasters, exacerbated by climate change and shocks, is increasing at an alarming rate. In the Pacific, the very existence of some nations is threatened by sea level rise.

Yet, far from succumbing to these challenges, the countries of the Asia Pacific region are rising to the task of harnessing the positive opportunities provided by biodiversity and natural ecosystems, as catalysts for sustainable development. In recognizing the real value of biodiversity and ecosystems – in relation to secure livelihoods, food, water and health, enhanced resilience, conservation of threatened species and their habitats, and increased carbon storage and sequestration – they, together with the Global Environment Facility (GEF) and the United Nations Development Programme (UNDP), are drawing on the potential of nature to achieve multiple development dividends.

UNDP and GEF are thus delighted to present this publication – “Biodiversity for Sustainable Development: Delivering Results for Asia and the Pacific” – which showcases the ground-breaking work that has taken place in recent years in this vast and disparate region to conserve land, water and ocean resources while adapting to climate change, enhancing local capacity, and generating sustainable livelihoods.

The publication highlights case studies and examples of initiatives, from the eastern tip of Asia to the far reaches of the Pacific Ocean, which have expanded and strengthened protected areas, integrated biodiversity and ecosystem management into key economic sectors including tourism, agriculture and fisheries, and supported ecosystem-based adaptation to, and mitigation of, climate change. This work has been reinforced by initiatives focusing on access to clean and affordable energy and improved energy efficiency, empowering women, and ensuring effective risk management and resilience building.

In total, since 2000, UNDP and GEF have carried out work over 10 million hectares in 13 countries to improve production practices in agriculture, fisheries, forestry, tourism and extractive industries, to

conserve biodiversity while driving economic growth and generating jobs. A total of 459 marine and terrestrial protected areas and indigenous and community conservation areas—covering 64 million hectares in 19 countries—has benefited from UNDP-managed GEF investment in governance, management effectiveness and livelihood generation.

Going forward, as the international community identifies the priorities and Sustainable Development Goals for the post-2015 development agenda, as well as a new climate change regime for the post-2020 period, UNDP and GEF commit to further support countries in the Asia Pacific region in responding to the challenge of sustainable development by intensifying actions for the effective maintenance and protection of natural capital.

In particular, the Ridge to Reef programme will constitute a major area of work, promoting integrated natural resource management to deliver multiple development benefits in a number of Pacific Island countries. Tiger landscape management will be supported in tiger range states to support the Global Tiger Recovery Programme, and we will address trade in endangered species by supporting efforts to create sustainable livelihoods for communities; strengthen

governance and law enforcement; and reduce the demand for illegal wildlife products. We will work with Small Island Developing States in the region to reduce threats from invasive species and their negative impacts on island ecosystems and their development. We will also work with countries to integrate biodiversity and ecosystem values in national and local fiscal and development planning processes through UNDP’s Biodiversity Financing (BIOFIN) programme.

Our focus is on strengthening the human resources of partner countries and their people, while promoting inclusive economic growth that takes the real value of biodiversity and ecosystems into account in decision-making and works to influence markets to reflect that value. We will continue to build genuine and durable partnerships at the local, national and regional levels, through greater South-South cooperation, more effective coordination, and engagement with new partners on shared priorities.

UNDP and GEF look forward to continuing to work closely with our Asia-Pacific partners to deliver solutions to biodiversity and ecosystem loss to help them chart a path towards sustainable development.



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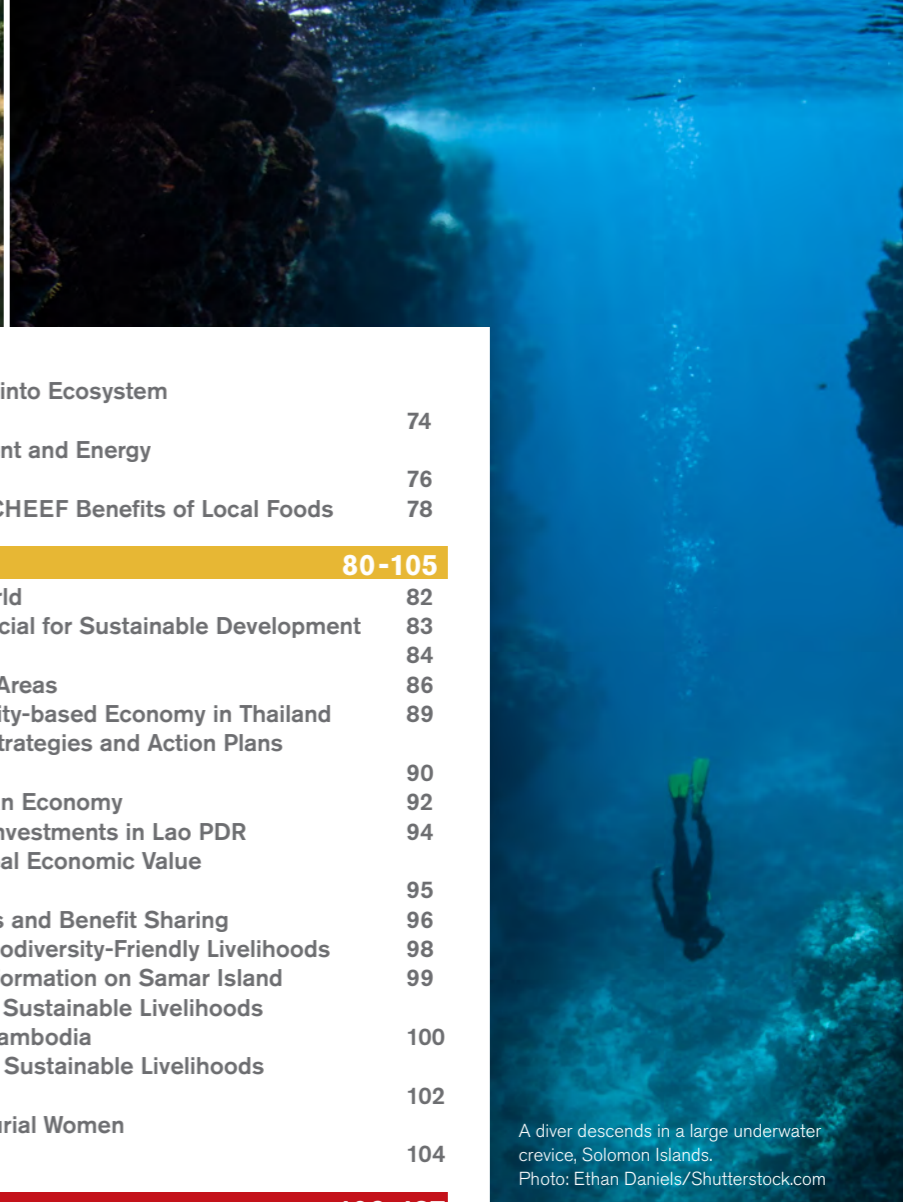
Crimson sunbird (*Aethopyga siparaja*)
Khao Kitchakut National Park, Thailand
Photo: kajornyot/Shutterstock.com



Little owl (*Athene noctua*)
Photo: Marc Foggini



A farmer ploughs his field near Aungmyan, Myanmar
Photo: Sarah Valenti



A diver descends in a large underwater crevice, Solomon Islands.
Photo: Ethan Daniels/Shutterstock.com



Himalayan goral (*Naemorhedus goral*), Bhutan
Photo: Midori Paxton



Olive ridley turtle (*Lepidochelys olivacea*)
Photo: Prashanth Vishwanathan/UNDP India

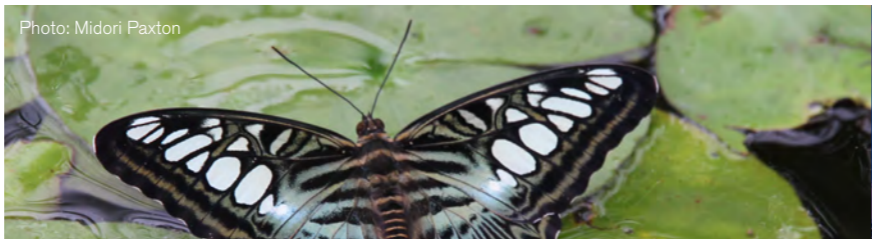
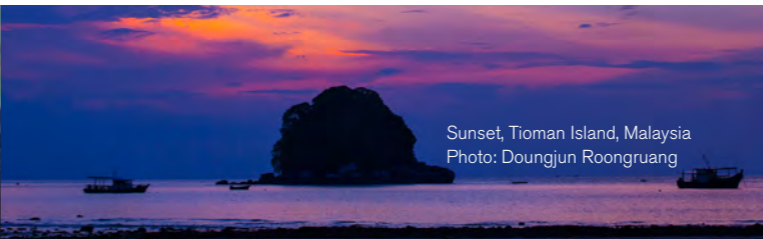
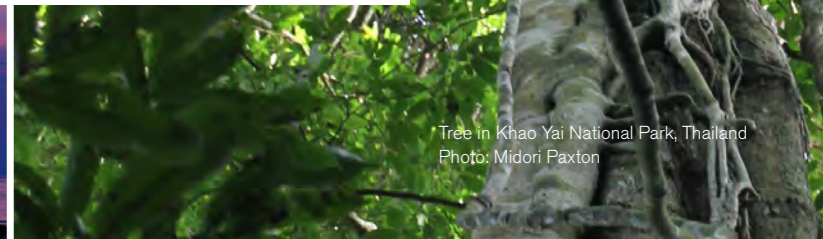


Photo: Midori Paxton



Sunset, Tioman Island, Malaysia
Photo: Doungjun Roongruang



Tree in Khao Yai National Park, Thailand
Photo: Midori Paxton

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THE FUTURE WE WANT – BIODIVERSITY AND ECOSYSTEMS DRIVING SUSTAINABLE DEVELOPMENT

UNDP'S 'GLOBAL ECOSYSTEMS AND BIODIVERSITY FRAMEWORK 2012-2020' SEEKS TO HARNESS THE POSITIVE POTENTIAL OF ECOSYSTEMS AND BIODIVERSITY TO CONTRIBUTE TO SUSTAINABLE DEVELOPMENT

Nomads with their yak herds roam across the snow-carpeted hills of the Tibetan plateau that are their home. On the other side of the world, I am pouring a glass of cool water in between meetings in my packed day in New York City, indulging myself for 10 seconds reflecting on the sight of an orang-utan I saw in the Borneo rainforest two years ago. More than 12,000 kilometres (km) to the east in Lao Peoples' Democratic Republic (PDR), a young boy sits down to savour a bowl of rice. In the Western Ghats where I grew up, an aspiring tour guide studies a book on the birds of India, anxious to impress her first tour group the following day. Some 13,000 km to the south east, a fisherman in the tiny Pacific island nation of Kiribati heads home with his day's catch of fish, enough to feed his family and a few neighbours. 7,500 km northeast a Bhutanese monk meditates backed by the sacred peak of the mountain, Gangkhar Puensum.

Though we may not realize it, each of these people shares a common bond in a very real, tangible and vital way — each depends on ecosystems and biodiversity. The nomadic herders have lived in the high mountain landscapes of Central and North Asia for millennia, relying on pasture to graze their livestock for their main livelihood. Rice farmers in Lao PDR rely on agro-biodiversity to secure their crops from threats from climate change and disease. In New York, all 8 million residents, along with the 47 million annual visitors, rely on protected areas in upstate New York to supply their drinking water day in and day out. The tour guide in the Western Ghats is soon to become part of her country's nature-based tourism industry, which contributes to the local and national economy.

The fisherman in Kiribati relies on the Phoenix Islands Marine Protected Area to supply his family with daily protein. In Bhutan, nature contributes to spiritual fulfilment and the concept of protected areas has existed for thousands of years, as sacred sites.

As these examples illustrate, ecosystems and biodiversity provide us with a home, food, water, medicine, livelihoods and jobs, money, knowledge, and inspiration and equip us to cope with disasters and climate change impacts. These are

the very themes of this publication. As the Malaysian government also put it so aptly in its official biodiversity conservation logo: "My Biodiversity - Life, Heritage and Future".

While biodiversity provides the foundation on which all life depends, including human societies, it is particularly important to the 2.7 billion people — more than a quarter of the world's population — who survive on less than US\$2 a day. As much as 70 percent of the world's poorest people depend critically on biodiversity to provide them with life's most basic necessities, including food, water, shelter, medicine and their livelihoods. UNDP's core mission is to contribute to the eradication of extreme poverty and the reduction of inequality and exclusion: if this is to be achieved, the integration of biodiversity and ecosystems management into the development and poverty reduction agenda is vital.

And this is exactly the reason why UNDP works on ecosystem and biodiversity, managing an ever-increasing US\$1.2 billion portfolio.

In 2012, at the 11th Conference of Parties of the Convention on Biological Diversity in India, we launched the UNDP Biodiversity and Ecosystems Global Framework 2012-2020.

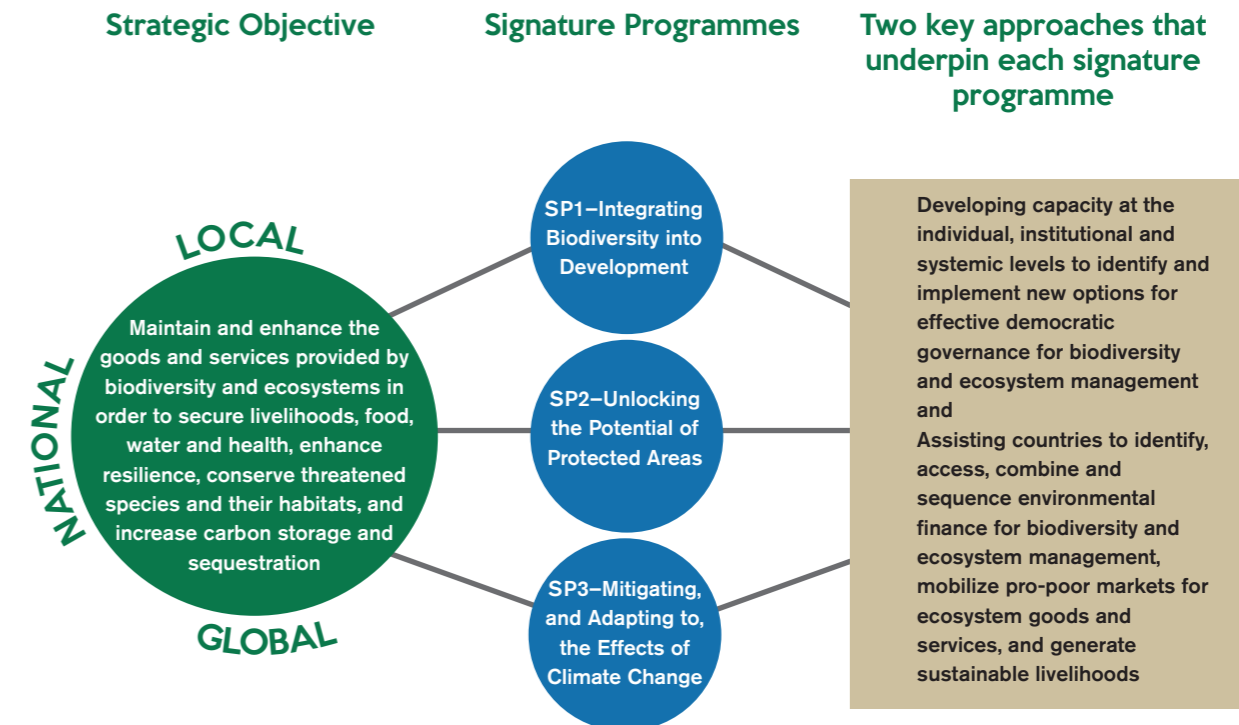
As illustrated in the diagram on the right, the framework comprises three signature programmes, to respond to countries' demand for support on Policy, Finance and Capacity:

1. Integrating biodiversity and ecosystem management into development planning and production sector activities to safeguard biodiversity and maintain ecosystem services that sustain human wellbeing.
2. Unlocking the potential of protected areas, including indigenous and community conserved areas, to conserve biodiversity while contributing towards sustainable development.
3. Managing and rehabilitating ecosystems for adaptation to, and mitigation of, climate change.

by Nik Sekhran, Chief of Profession, Sustainable Development Cluster



UNDP'S BIODIVERSITY AND ECOSYSTEMS GLOBAL FRAMEWORK FOR THE WHOLE DOCUMENT PLEASE VISIT: WWW.UNDP.ORG/BIODIVERSITY



All of our programmes and projects in 140 countries around the world, including Asia and the Pacific, fall under this framework. Ultimately, it all comes down to securing the essential natural capital of the nations and the world. Natural capital represents 25 percent of total wealth in developing countries.

Therefore attenuating biodiversity loss is a critical strategy for mitigating poverty and achieving sustainable development. Biodiversity can provide an important safety net for the poor.

I believe there are two key factors that determine success or failure of human societies to manage biodiversity and reduce poverty:

1. Strength of environmental governance systems: putting in place policies, regulations and effective institutions to support accountable decision-making systems and protect property rights.
2. Ability to address market failure: changing the trajectory of markets to account for and correctly value ecosystem goods and services in financial transactions.

UNDP's ecosystem and biodiversity programme is designed to address these factors by removing barriers to country action to address the root causes of biodiversity loss and improve the state of biodiversity over the long-term.

I was trained as an economist. But you don't have to be an economist to realise that it simply does not make sense to grow the economy — accumulate financial wealth, increase physical assets — if this growth depletes your natural capital beyond the threshold of being able to support our life. It is a housekeeping fundamental; all accounts must be healthy. If the biodiversity and ecosystem account is in the red, how can we justify calling the growth progress? How can it be development?

Globally, through management of 512 projects on ecosystems and biodiversity with US\$1.5 billion infunding from the GEF and other sources, and co-finance of US\$3.5 billion, UNDP's ecosystems and biodiversity programme has been successful in: impacting over 2,000 protected areas in 85 countries, covering 272 million hectares; undertaking interventions in production sectors and development planning in 38 countries, covering 244 million hectares; and promoting ecosystem-based adaptation to or mitigation of climate change in 71 countries. In addition to this portfolio of projects, UNDP also implements two programmes focused at the local level—the GEF Small Grants Programme and the Equator Initiative partnership—that are working with indigenous peoples and local communities on ground-breaking work in biodiversity conservation and sustainable development.

INTRODUCTION

The Asia Pacific region teems with life. The region encompasses some of the world's largest and most diverse ecosystems and is home to more than half of the world's population. From the rivers flowing from the high Himalayas to the waters of the Coral Triangle, the web of ecosystems in this region and the biodiversity that enriches them support the lives and livelihoods of millions of people.

However, despite much progress in environmental protection, the region is losing the integrity and productivity of its lands and seas. The Living Planet Index, published biennially by the World Wildlife Fund (WWF) and its partners, reports that biodiversity is in decline in all types of ecosystem examined in the Asia Pacific region, including forests, rivers and oceans. The rate of species loss is about twice the global average. Data have shown that the region is depleting natural assets at an unsustainable rate: water scarcity is increasing; tropical forests are shrinking; and climate change is worsening these threats. The risk of natural disasters – exacerbated by climate change and economic shocks – magnifies existing vulnerabilities.

Since 2000, UNDP's Ecosystems and Biodiversity (EBD) programme has achieved substantial results through its management of more than 160 GEF-financed projects in Asia Pacific. Work has been carried out over more than 10 million hectares in 13 countries to improve production practices in agriculture, fisheries, forestry, tourism and extractive industries, to conserve biodiversity while driving economic growth and generating jobs. A total of 459 marine and terrestrial protected areas and indigenous and community conservation areas—covering 64 million hectares in 19 countries—have been impacted through UNDP-supported GEF-financed projects. Sustainable forest management measures and ecosystem-based adaptation and mitigation interventions supported by UNDP with GEF finance are also under way in the Asia Pacific region.

UNDP-GEF currently supports a portfolio of 104 ecosystems and biodiversity projects in Asia Pacific, which are at various stages of the project cycle. In addition to this portfolio of projects, UNDP also implements two programmes focused at the local level—the GEF Small Grants Programme and the Equator Initiative.

In the Asia Pacific region as of 2013, 29 UNDP supported GEF financed projects are working to integrate biodiversity and ecosystem management into development planning and production sector activities that target the agriculture, extractives, fisheries, forestry and tourism sectors, directly impacting an area of over 8 million hectares. UNDP is currently working in more than 300 protected areas in the region, impacting a total of more than 45 million hectares. This work primarily supports strengthening of protected areas so that they are

better managed and sustainably financed, but it also supports strategic expansion of existing protected area networks. A total area of more than 167,000 hectares is directly impacted by ecosystem-based adaptation (EbA) interventions in the region, in ecosystems ranging from the mountainous to the marine, bringing benefits, such as water security, to the nearby communities.

UNDP country offices, jointly with national governments and partners in the region, manage and monitor implementation of these projects. The UNDP Regional Bureau for Asia and the Pacific has 24 Country Offices as well as Regional Service Centres in Bangkok and Suva, covering 37 countries and territories. These Regional Service Centres support project formulation, implementation, monitoring and reporting and provide policy advice.

This publication presents results and success stories from UNDP's work with ecosystems and biodiversity outcomes in the Asia Pacific region. The majority of work presented is supported with grant financing from the Global Environment Facility Trust Fund (GEF). Apart from the GEF, major funding sources include the Adaptation Fund, Least Developed Countries Trust Fund and Nagoya Protocol Implementation Fund, also administered by the GEF; the European Union, German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, Government of Norway, Government of the Netherlands, SNV Netherlands Development Organisation, Swiss Agency for Development and Cooperation SDC, World Wildlife Fund.

The projects presented represent a range of approaches being adopted to implement UNDP's Global Ecosystems and Biodiversity Framework 2012–2020. In addition, achievements are also presented from other core and bilaterally funded regional work and UNDP environment programmes that also contribute to biodiversity management, including the UNDP-UNEP Poverty Environment Initiative (PEI) and the UN Reducing Emissions from Deforestation and Degradation (UN-REDD Programme), a collaborative initiative of UN FAO, UNEP and UNDP.

The results and stories are structured in five themes that aim to reflect some of the positive contributions of ecosystems and biodiversity to sustainable human development and wellbeing: Home, Food and Water, Work and Money, Health and Security, and Happiness and Love. Each article highlights selected achievements of various projects within a particular theme or topic, but all of the projects are characterised by the use of multiple approaches to achieving their objectives in the specific contexts of the countries and locations where they are implemented.



MUST SEE WILD PLACES IN ASIA AND THE PACIFIC

THOUGH BY NO MEANS COMPREHENSIVE, THIS LIST GIVES A SAMPLE OF SOME OF THE AMAZING ECOSYSTEMS AND BIODIVERSITY THAT ASIA AND THE PACIFIC HAVE TO OFFER

Natural lakes in Band-e-Amir National Park
Photo: Rodrigo Guim/Shutterstock.com

1. ALTAI TAVAN BOGD KHAN NATIONAL PARK, MONGOLIA.

The vast, stunning mountains of this national park are considered sacred to local Mongolian herders and are home to spectacular species, such as the snow leopard, listed as Endangered by IUCN, and the world's largest wild sheep – the argali.

2. ANNAMITE MOUNTAINS OF SOUTHEAST ASIA AND THE CARDAMOM MOUNTAINS OF CAMBODIA.

The mysterious rich rainforests that cover these mountains are still relatively unexplored – three new species of mammal were recently discovered here. The park is also home to the striking and Endangered douc langur monkey, tiger and Asian elephant.

3. BAA ATOLL, MALDIVES.

This heart-shaped group of 75 islands is renowned for its extensive coral reefs and marine life, which includes rare corals unique to the atoll, and the famous Hanifaru Bay, a significant aggregation site for manta rays and whale sharks.

4. BAND-E-AMIR NATIONAL PARK, AFGHANISTAN.

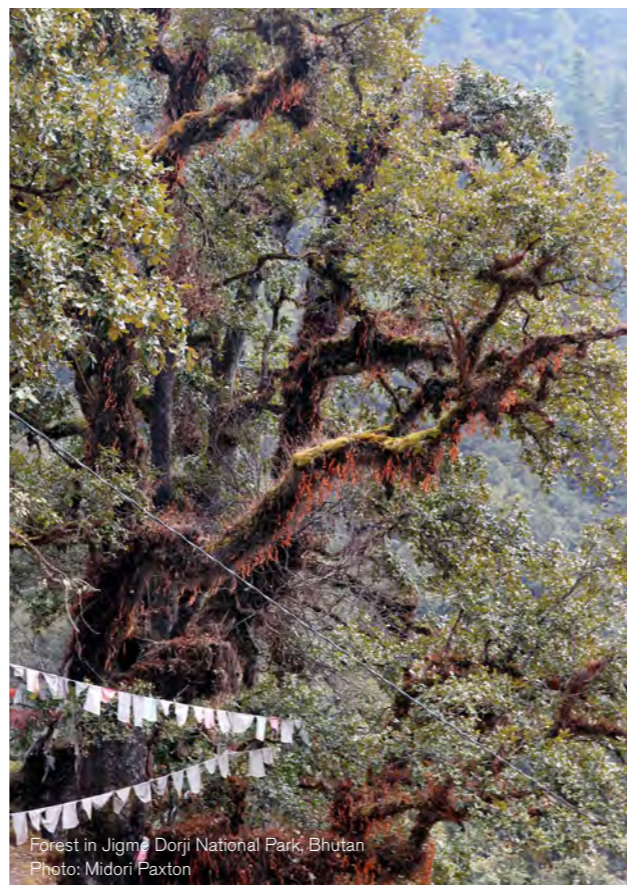
Afghanistan's first national park, Band-e-Amir is one of few places in the world where natural lakes created by travertine mineral deposits can be found. Six deep, almost impossibly brilliant blue lakes separated by these natural dams nestle among stark limestone cliffs in the Hindu Kush Mountains, where the Persian leopard still roams.

5. CASPIAN HYRCANIAN FOREST LANDSCAPE, IRAN.

This ancient landscape of lowland and montane forests is a storehouse of endemic and threatened species. Named after the ancient region of Hyrcania ("Wolf Land"), the landscape is also home to wolves and brown bears.

6. CHITRAL VALLEY, PAKISTAN.

Snow-fed rivers run through lush green meadows, terraced fields and forest against a backdrop of rocky glacier-topped mountains in the spectacular Chitral Valley. Chitral's mountains harbour snow leopards and the world's largest species of wild goat – the majestic and Endangered markhor.



Forest in Jigme Dorji National Park, Bhutan
Photo: Midori Paxton



Baa Atoll in the Maldives is an aggregation site for manta rays (*Manta spp.*). Photo: nitrogenic.com/Shutterstock.com

7. DANUM VALLEY CONSERVATION AREA, BORNEO.

This large tract of relatively undisturbed ancient lowland tropical rainforest is home to a number of rare and enigmatic species, including the tarsier, Bornean pygmy elephant, and the recently discovered spectacled flowerpecker bird. It includes the Maliau Basin Conservation Area established to conserve the Maliau river catchment and the Yayasan Sabah Concession Area.

8. EASTERN STEPPE, MONGOLIA.

Great migratory herds of Mongolian gazelle roam the open plains, rolling hills and pristine wetlands of the eastern steppe, one of Asia's last grassland wildernesses. More than twice the size of New York State, 200,000 nomadic herders depend directly on this vast and fragile landscape for their livelihoods.

9. LANGU GORGE, NEPAL.

Accessible only by foot, the Langu Gorge lies in Nepal's largest national park – Shey Phoksudo – famous for its spectacular Himalayan landscapes. With cliffs, ridges and gullies, this is prime snow leopard habitat and the first place that the species was ever studied by radio collar.



Forests of the Annamite mountains are home to the douc langur (*Pygathrix nemaeus*)
Photo: Subin Pumsom/Shutterstock.com



Myanmar's Northern Mountains Forest Complex harbour rufous-necked hornbill (*Aceros nipalensis*)
Photo: Kim Briers/Shutterstock.com



Sunrise in Danum Valley, Borneo
Photo: Kim Briers/Shutterstock.com

10. LAYA VILLAGE OF JIGME DORJI NATIONAL PARK, BHUTAN.

Laya village, home to the Layap indigenous people, lies at an altitude of 3,850 metres in the Tibetan peaks of Bhutan's second largest national park. Blue sheep, musk deer, tigers, snow leopards and Bhutan's national animal, the takin (a type of goat-antelope), all share this landscape.

11. NINO KONIS SANTANA NATIONAL PARK, TIMOR-LESTE.

Timor-Leste's first national park encompasses primary rainforest, more than 200 cultural sites and a large tract of the Coral Triangle, an underwater paradise with the world's greatest coral and reef fish diversity. On land, the park links Important Bird Areas, which harbour the Critically Endangered endemic Timor green-pigeon and yellow crested cockatoo.

12. NORTHERN MOUNTAINS FOREST COMPLEX, MYANMAR.

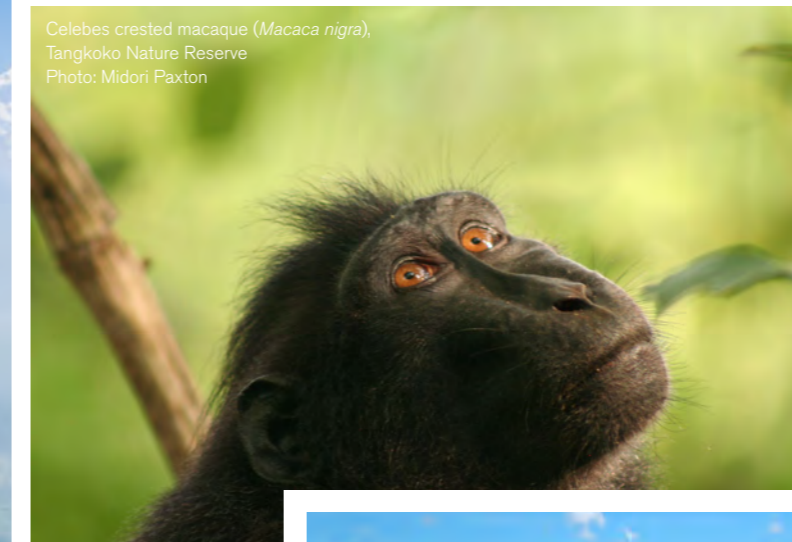
This vast landscape at the crossroads of India, Myanmar and China encompasses four protected areas and is one of the region's largest remaining expanses of natural forest, harbouring tiger, red panda and the rufous-necked hornbill. Myanmar's highest mountain and the headwaters of its most important rivers, the Ayerwaddy and Chindwin are also found here.

13. NORTHERN PLAINS OF CAMBODIA.

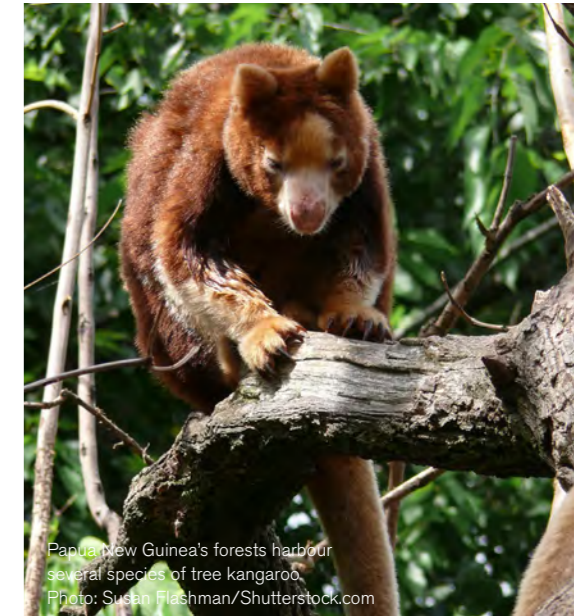
Once referred to as the 'Serengeti' of Southeast Asia, Cambodia's Northern Plains are famous for both their rich abundance of wildlife and their cultural heritage, as the site of Angkor Wat. This landscape is home to some of the world's rarest large waterbirds, including the Critically Endangered giant ibis, and large threatened mammals such as the Asian elephant and banteng, a species of wild cattle.



Pokhara Valley.
Photo: Det-anan/Shutterstock.com



Celebes crested macaque (*Macaca nigra*),
Tangkoko Nature Reserve
Photo: Midori Paxton



Papua New Guinea's forests harbour
several species of tree kangaroo.
Photo: Susan Flashman/Shutterstock.com



The giant *Rafflesia cantleyi* flower,
Royal Belum/Temengor Forest
Complex. Photo: Midori Paxton



Palawan, Philippines
Photo: walterericsv/Shutterstock.com

14. PALAWAN ISLAND, PHILIPPINES. With its rain-forested hills, powder-fine beaches, sparkling azure waters and abundant wildlife, Palawan Island is a true nature lover's paradise with amazing seascape views. Majestic karst limestone formations, lagoons, marble cliffs, prehistoric caves and waterfalls are all off the coast waiting to be explored, and the endemic Philippine pangolin can be glimpsed in the island's forests.

15. PARAMBIKULAM WILDLIFE SANCTUARY, KERALA, INDIA. Forests, gentle hills

18. ROYAL BELUM/ TEMENGOR FOREST COMPLEX, PENINSULAR MALAYSIA. Believed to be one of the world's oldest rainforests, at 130 million years old, it is home to 3,000 species of flowering plants including the world's largest flower – the giant and stinky *Rafflesia* – over 100 mammal species, including the Malayan tiger, tapir, sun bear, Sumatran rhinoceros and all 10 of Malaysia's magnificent hornbill bird species.

19. SANJIANGYUAN NATIONAL NATURE RESERVE AND QINGHAI LAKE, QINGHAI.

21. COOK ISLANDS. The Cook Islands has pledged to establish a vast marine protected area covering just over one million km², making it one of the largest marine areas ever committed for conservation. In addition to many oceanic and reef species, mother humpback whales and their calves rest in the waters off these islands, on their migration route back to colder southern waters. On land, catch a glimpse of the Rarotonga flycatcher, an endemic bird.

22. PAPUA NEW GUINEA

24. POHNPEI, FEDERATED STATES OF MICRONESIA. Formed from an extinct volcano, the high island of Pohnpei contains some of the last remaining montane cloud forest in Micronesia, and marine reserves conserve many of its mangroves, freshwaters swamps and coral reefs. The island's isolation and great age mean that unique species such as the Pohnpei fantail bird can be seen here.

25. FEDERATED ISLANDS COLONY

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_12020

