



JUN 09 2025



**DENR ADMINISTRATIVE ORDER**  
**No. 2025- 23**

**SUBJECT: AMENDING DENR ADMINISTRATIVE ORDER (DAO) 2016-12 SERIES OF 2016, AND THE PHILIPPINE BIODIVERSITY STRATEGY AND ACTION PLAN (PBSAP) 2015-2028; AND ESTABLISHING A MECHANISM FOR ITS IMPLEMENTATION**

In recognition of the crucial role of biodiversity in underpinning ecosystem services essential for national development and human well-being, including food, water, medicine, and refuge, and to reflect new global commitments under the Kunming-Montreal Global Biodiversity Framework, there is a need to strengthen the Philippines's national biodiversity roadmap.

Recognized as one of the world's megadiverse countries, the Philippines holds immense potential for nature-based solutions that address climate change, safeguard livelihoods, and restore ecosystems. Harnessing this potential requires an updated coherent national strategy.

Accordingly, in order to update the Philippine Biodiversity Strategy and Action Plan (PBSAP) 2015-2028, adopted through Department of Environment and Natural Resources (DENR) Administrative Order No. 2016-12 series of 2016, this Order is hereby issued:

**SECTION 1. Basic Policies.**

- 1.1. It is hereby declared the policy of the State under Article II, Section 16 of the 1987 Philippine Constitution to protect and advance the right of the people to a balanced and healthful ecology in accord with the rhythm and harmony of nature.
- 1.2. The Philippine Development Plan (PDP) recognizes biodiversity as a key resource of the country that enables the achievement of various developmental outcomes.
- 1.3. The National Adaptation Plan (NAP) 2023–2050, which builds on the National Framework Strategy on Climate Change (NFSCC), highlights biodiversity as a critical component of national climate resilience.
- 1.4. The National Climate Change Action Plan (NCCAP) supports the integration of biodiversity conservation and ecosystem-based approaches into climate change adaptation and mitigation strategies.

- 1.5. CBD Decision 15/4, which adopted the Kunming-Montreal Global Biodiversity Framework (GBF), provides a global strategic plan for the implementation of the Convention on Biological Diversity, to which the Philippines is a Party.
- 1.6. Section 46 of the General Appropriations Act (GAA) of 2024 or Republic Act No. 11975 and Section 43 of the GAA of 2025 or Republic Act No. 12116, mandates all government agencies, including local government units (LGUs), state universities and colleges (SUCs), and government-owned and -controlled corporations (GOCCs), to support the implementation of the Kunming-Montreal Global Biodiversity Framework.

**SECTION 2. Objectives.** The PBSAP is strengthened to provide a clear, coordinated, and accountable roadmap for biodiversity conservation and sustainable use, in response to the urgent need to address biodiversity loss and in alignment with national priorities and international commitments.

Specifically, the PBSAP is updated achieve the following objectives:

- 2.1. To institutionalize the PBSAP 2024-2040 as the national roadmap for biodiversity conservation;
- 2.2. To establish an Advisory Committee co-chaired by DENR and the Department of Economy, Planning, and Development (DepDev);
- 2.3. Strengthen Sub-Committee on Biological Diversity, under the Philippine Council for Sustainable Development, as the technical oversight body;
- 2.4. Institutionalize a web-based Monitoring and Evaluation System for tracking progress and ensuring accountability across government agencies;
- 2.5. Promote the mainstreaming of biodiversity objectives across national, regional, and local development plans, climate strategies, and sectoral programs; and
- 2.6. Enable interagency and multi-stakeholder coordination and partnerships, with due recognition of the role of Indigenous Peoples and Local Communities (IPLCs), and civil society.

**SECTION 3. Adoption of the PBSAP.** The PBSAP 2024-2040 is adopted as the country's roadmap for biodiversity conservation that integrates and mainstreams the CBD's objectives into the national development and sectoral plans and programs. It is attached as **Annex "A"** and made an integral part of this Order.

**SECTION 4. Implementation of the PBSAP.** The Department of Environment and Natural Resources (DENR), through the Biodiversity Management Bureau

(BMB), is hereby authorized to coordinate the implementation of the PBSAP with the plans and programs of the concerned national government agencies (NGAs), local government units (LGUs), government-owned and controlled corporations (GOCCs), civil society organizations (CSOs), government financial institutions, state universities and colleges, and the private sector.

**SECTION 5. Capacity Development.** The DENR through the BMB shall subsequently provide technical assistance and capacity building and develop materials in relation to PBSAP 2024-2040. It shall also conduct corresponding training, seminars, and workshops for concerned DENR Offices and relevant stakeholders upon approval of this Order.

**SECTION 6. Funding and Budgetary Requirements.** The DENR shall allocate sufficient funds to support the full implementation of PBSAP 2024-2040 for DENR-related activities, subject to existing laws, rules, and regulations. All relevant agencies and partners may also allocate funds to support its implementation.

**SECTION 7. Separability Clause.** If any provision of this Order shall be held invalid or unconstitutional, the other portions or provisions hereof which are not affected shall continue in full force and effect.

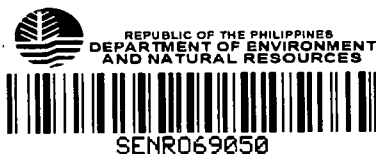
**SECTION 8. Repealing Clause.** All Administrative Orders and other similar issuances inconsistent herewith are hereby revoked, amended, or modified accordingly.

**SECTION 9. Effectivity.** This Administrative Order shall take effect immediately after its publication in a newspaper of general circulation and upon acknowledgment of the receipt of the copy thereof by the Office of the National Administrative Register (ONAR).

Publication: Daily Tribune  
July 12, 2025

Acknowledgement: ONAR, U.P. Law Center  
July 17, 2025

MARIA ANTONIA YULO LOYZAGA  
Secretary



# Philippine Biodiversity Strategy and Action Plan

2024-2040

*Biodiversity nurtured  
resiliency improved  
...Our future secured*

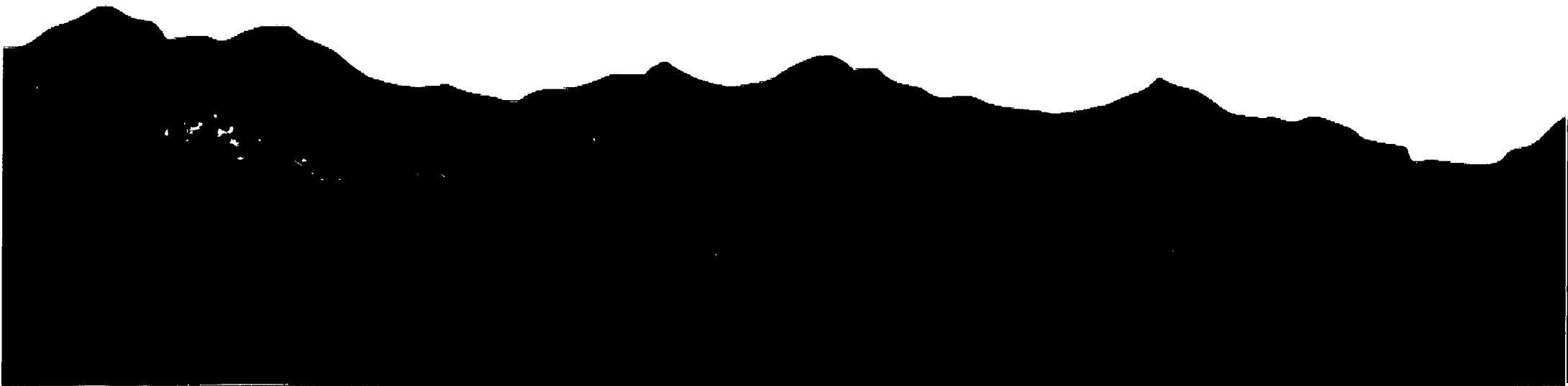


## **VISION**

*By 2040, Philippine biodiversity is valued,  
enhanced, effectively conserved and  
managed through inclusive and transformative  
actions delivering climate-resilient ecosystems  
and sustained benefits to Filipino communi-*

# **Philippine Biodiversity Strategy and Action Plan (PBSAP)**

**2024-2040**



# ACKNOWLEDGEMENTS

In line with the adoption of the Kunming Montreal Global Biodiversity Framework (KMGBF) by the 15th Conference of the Parties to the Convention on Biological Diversity, the Department of Environment and Natural Resources through the Biodiversity Management Bureau (DENR-BMB) has developed the 2024-2040 Philippine Biodiversity Strategy and Action Plan (PBSAP).

Since February 2023, the DENR-BMB conducted a series of consultation workshops involving various stakeholders across the country. The consultations involved more than a thousand participants from National Government Agencies, Civil Society Organizations, Indigenous Peoples groups, Local Government Units and local communities, academic institutions, development partners and the private sector.

The DENR-BMB would like to express its deepest gratitude to all organizations and individuals, men and women, including the youth who participated and provided valuable inputs during the entire PBSAP updating process.

The BMB worked with a number of experts to ensure the success of the updating process, to wit: Mr. Wilbur Dee, Mr. Eduardo Queblatin, Dr. Vincent Hilomen, Dr. Shiela Vergara, Atty. Elpidio Peria, For. Ricardo Calderon, Ms. Anabelle Plantilla, Ms. Lisa Paguntalan-Marte and Philippines Biodiversity Conservation Foundation Team, Dr. Jerome Montemayor, Mr. Anthony Foronda, Dr. Arvin Diesmos, and Ms. Jacqueline Bacal; Writer: Dr. Christine Casal; and Overall Facilitator: Ms. Socorro Feliciano.

To the members of the Biodiversity Multi-Stakeholders Advisory Committee (BMSAC) who also provided technical guidance and to countless other supporters of Philippine Biodiversity, who contributed in various ways, BMB is extremely grateful.

Funding for the PBSAP Updating Process was provided by the Government of the Philippines, Department of Environment and Natural Resources (DENR) - Biodiversity Management Bureau (BMB), Forest Foundation Philippines (FFP), Foundation for Philippine Environment (FPE), USAID-Sustainable Intervention for Biodiversity, Ocean and Landscapes (SIBOL) Project, and United Nations Development Programme (UNDP)/Global Environment Facility (GEF) Projects: Biodiversity Finance Initiative (BIOFIN), Early Action Support (EAS), Access and Benefit Sharing (ABS), and the Integrated Approach in Management of Major Biodiversity Corridors in the Philippines (BDCorridor). Lay-out and printing was supported by Wildlife Conservation Society (WCS).

## About the Cover

The cover of the Philippine Biodiversity Strategy and Action Plan 2024-2040 showcases six (6) flora and fauna species, highlighting the rich and abundant biodiversity of the Philippines and emphasizing the significance of conservation, protection, and sustainable management of biodiversity.

From top to bottom: (1) Jade vine (*Strongylodon macrobotrys*); (2) Philippine Eagle (*Pithecophaga jefferyi*); (3) Tamaraw (*Bubalus mindorensis*); (4) Philippine cockatoo (*Cacatua haematuropygia*); (5) Hawksbill turtle (*Eretmochelys imbricata*); (6) Dugong (*Dugong dugon*) — Photo credits: Ms. Yvette Lee.

Published by:  
Department of Environment and Natural Resources –  
Biodiversity Management Bureau  
Ninoy Aquino Parks and Wildlife Center  
Diliman, 1100 Quezon City

Suggested Citation:  
Department of Environment and Natural Resources - Biodiversity  
Management Bureau (DENR-BMB). 2024.  
Philippine Biodiversity Strategy and Action Plan (Abridged).  
Department of Environment and Natural Resources - Biodiversity  
Management Bureau, Quezon City, Metro Manila

ISBN  
Soft bound / paper back  
978-621-96498-2-7  
PDF (downloadable)  
978-621-96498-3-4

Copyright © 2024 Biodiversity Management Bureau of the Department of  
Environment and Natural Resources

All rights reserved.

No use of this work may be made for resale or any other commercial  
purposes without prior permission in writing from the DENR-BMB.  
Applications for such permission may be sent to [bmb@bmb.gov.ph](mailto:bmb@bmb.gov.ph).

Printed in the Philippines

# TABLE OF CONTENTS

**Acknowledgements**

**Foreword**

**Message from the DENR Secretary**

**Summary**

**Philippine Biodiversity 1**

**Habitat Diversity 2**

**Species Diversity 7**

**Threats to Philippine Biodiversity 9**

**Ecosystems: Nature's gifts that keep on giving 13**

**Linked to International Goals, grounded on Local Needs 17**

**PBSAP Wheel 18**

**PBSAP Tagline and Vision 19**

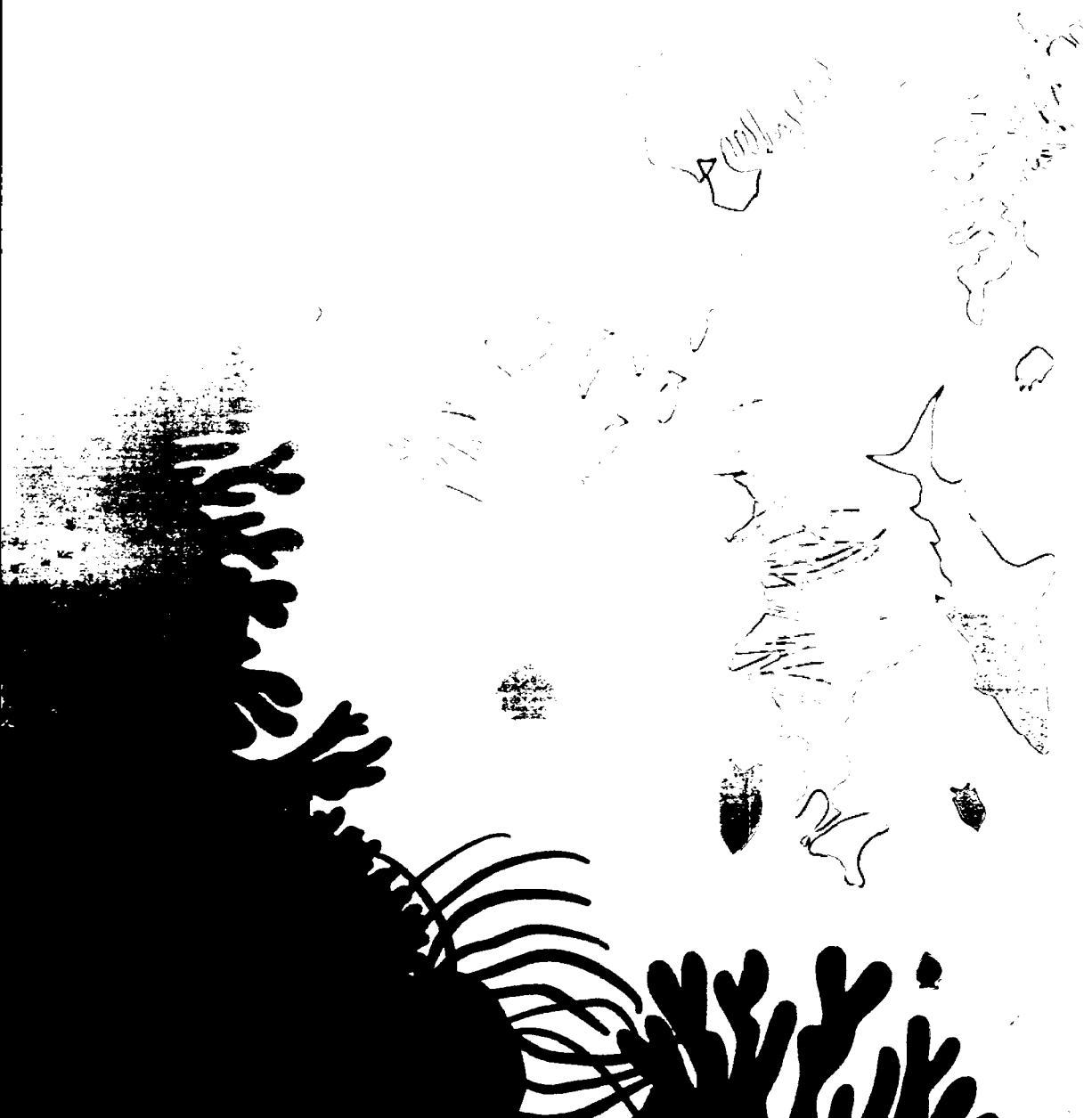
**PBSAP Framework 20**

**Philippine Targets and Indicators of the PBSAP 2024-2040 23**

**The 30x30 Target 29**

**Implementing the PBSAP: A Comprehensive Approach 31**

**Initiatives to Implement the PBSAP 33**



# FOREWORD

This publication presents the highlights of the Philippine Biodiversity Strategy and Action Plan 2024-2040, the country's roadmap for conserving and managing biodiversity. It is aligned with global, national and sectoral development and planning frameworks such as the Kunming-Montreal Global Biodiversity Framework (KMGBF), the Sustainable Development Goals (SDGs), the Philippine Development Plan (PDP), and the National Adaptation Plan (NAP). It is the fourth and latest update of the Philippine Biodiversity Strategy and Action Plan, which was first developed in 1997 as part of the country's commitments to the Convention on Biological Diversity.

The government recognizes the importance and contribution of biodiversity conservation to achieve inclusive and sustainable growth and fully supports the PBSAP as evidenced by annual national budget provisions since 2016. This is currently specified in Sections 46 and 47 of the General Appropriations Act of 2024.

The PBSAP was formulated with the participation of more than a thousand individuals representing nearly 300 agencies and organizations from the government, private sector, academe, media, Non-Government Organizations, People's Organizations both at the local and international levels. This multistakeholder process ensured that the PBSAP was developed with a comprehensive understanding of the country's priority needs. The successful implementation of the plan relies on the specificity of the targets and indicators, financing needs and strategies, monitoring mechanisms, institutional arrangements and responsibilities.

Anchored within the goals of the Philippine Development Plan, the PBSAP 2024-2040 works towards the vision that "By 2040, Philippine biodiversity is valued, effectively conserved and managed through inclusive and transformative actions delivering climate-resilient ecosystems and sustained benefits to Filipino communities."

**PBSAP 2024-2040:**  
**Biodiversity nurtured**  
**resiliency improved**  
**...Our future secured**

## MESSAGE FROM THE DENR SECRETARY



The Philippines, known for its magnificent natural beauty and incredible biodiversity, exemplifies the rich tapestry of life on Earth. Our country is a treasure mine of biological diversity, from the towering peaks of the Cordillera to Palawan's brilliant coral reefs, which sustain our ecosystems, cultures, and economies.

As we embark on a journey to protect and restore our natural heritage, the Philippine Biodiversity Strategy and Action Plan (PBSAP) acts as a compass. This comprehensive framework describes the prominent goals, targets and indicators, and concrete actions required to save and conserve our biodiversity for present and future generations.

Aligned with our new guiding statement "Biodiversity nurtured, resiliency improved, our future secured," this vision emphasizes the commitment that by 2040, Philippine biodiversity will be valued and effectively conserved and managed through inclusive and transformative actions, delivering climate-resilient ecosystems and sustained benefits to Filipino communities. The PBSAP recognizes the critical need to address the most severe challenges to our biodiversity, such as habitat loss and fragmentation, climate change, over-exploitation, uncontrolled invasion by alien species, pollution, and institutional challenges.

By adopting the initiatives indicated in this plan, we hope to build a more resilient and sustainable future for our people and the world.

I urge all stakeholders, including government agencies, civil society organizations, academe, private sector, indigenous people and local communities, to support the PBSAP. Together, we can leave a lasting legacy of biodiversity protection and sustainable development in the Philippines.

Let us accept our responsibilities as steward of this biodiversity and strive endlessly to ensure that the Philippines remains a global leader in biodiversity conservation.

Department of Environment and Natural Resources





# SUMMARY

The adoption of the Kunming-Montreal Global Biodiversity Framework (KMGBF) during the 15th Conference of Parties to the Convention on Biological Diversity in December 2022 provides the global priorities to reach the global vision of a world living in harmony with nature by 2050. These priorities pinpoint crucial and urgent actions to halt and reverse biodiversity loss.

The Philippines, an archipelagic country, is recognized with high biodiversity and boasts of a rich array of unique species and ecosystems. However, this incredible biodiversity is under significant threat from various factors. Climate change, pollution, overexploitation, spread of invasive alien species, and habitat loss and fragmentation, and institutional challenges are the major drivers that have put the country's biodiversity at risk.

These combined threats significantly undermine biodiversity and call for comprehensive management and conservation strategies. Addressing these challenges requires a comprehensive and coordinated approach given the interconnectedness of these threats and the multifaceted nature of biodiversity conservation.

The KMGBF aspires to stop and reverse biodiversity loss by catalyzing, enabling, and mobilizing urgent and transformative action by Governments, subnational, and local authorities, with the involvement of all society (inclusive participation). The Framework includes twenty-three (23) action-oriented global targets for the decade leading up to 2030 and four (4) long-term goals for the year 2050.

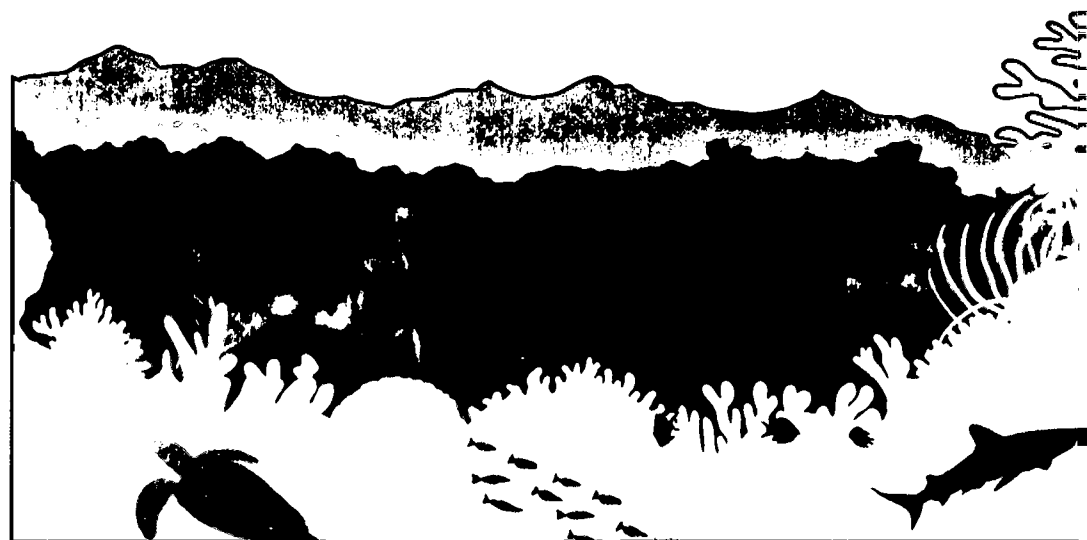
The PBSAP is aligned with the KMGBF global goals which emphasizes the importance of mainstreaming biodiversity into national and local development plans, policies, and programs. The PBSAP outlines specific goals, targets and indicators aimed at conserving biodiversity while promoting sustainable development. The PBSAP 2024-2040 will ensure that the country will be put under spatial planning to ensure a more holistic approach to conservation. Expanding the areas protected (30 x 30) and restored will contribute to the conservation (decrease risk of species extinction), management and sustainable use of biodiversity. It takes the biogeographic approach in biodiversity conservation and management in both land and sea, looking into interconnectedness of the species and ecosystems within biogeographic realms, and the uniqueness of each specific realm within the country. It further includes the management of invasive alien species; minimizing impacts of climate change and reduction of pollution and ensuring the fair and equitable sharing of benefits from genetic resources. Furthermore, the PBSAP emphasizes the need for local community involvement, recognizing that indigenous peoples and local communities are crucial stewards of biodiversity. Through capacity-building initiatives, education, and awareness campaigns, the plan seeks to empower communities to participate actively in conservation efforts.

By promoting sustainable use of natural resources and integrating biodiversity values into national accounting systems, the plan aims to demonstrate that conservation can go hand-in-hand with economic growth protecting the environment while supporting livelihoods and enhancing resilience to climate change impacts.

The Philippine Biodiversity Strategy and Action Plan (2024-2040) represents a comprehensive framework for conserving the nation's biodiversity, underscoring the necessity of a whole-of-government and whole-of-society approach, as every action is intertwined with another. By working together and through transformative actions, the Philippines can achieve sustainable development while improving the well-being of its people.

**"Strong, cohesive and scalable ecosystem-based responses to the increasingly complex challenges has become the imperative. This dictates that it is in our greatest interest to collaborate to co-create solutions and innovate".**

National Consultation on the Updating of the Philippine Biodiversity Strategy and Action Plan in line with the Kunming-Montreal Global Biodiversity Framework  
August 2024



# PHILIPPINE BIODIVERSITY

The Philippines is one of the 17 megadiverse countries in the world, with significant number of endemic species. This archipelagic country is composed of 7,641 islands with a total land area of 298,170 km<sup>2</sup>, it has 02% of global land mass.

It is bounded by 36,289 km of coastline and surrounded by 586,435 km<sup>2</sup> of archipelagic waters, 134,525 km<sup>2</sup> continental shelf (including the Philippine Rise) and 78,025 km<sup>2</sup> from PD 1596 which includes the Kalayaan Group of Islands.

The Philippines is part of the Global Ocean Alliance (GOA) — a 77-country coalition led by the United Kingdom.

GOA supports ambitious ocean action within the CBD, GBF, and 30 x 30 targets.

**248**

Terrestrial and Marine Protected Areas

114 Legislated Protected Areas (4.43 million hectares)  
13 Proclaimed Protected Areas (1.11 million hectares)  
121 initial components (2.26 million hectares)

**3,865**

Identified Caves

435 Caves within Protected Area  
1,641 Caves assessed (259 within Protected Area)  
864 Caves classified (226 within Protected Areas)  
according to their beneficial uses Class I - 150 caves; Class II - 578 caves; Class III - 136 caves  
397 Caves with Management Plans (69 within Protected Areas)

**563**

Identified Inland Wetlands

223 Wetlands assessed (151 within Protected Areas)  
99 with Wetlands Management Plans (33 are within Protected Areas)

• Key Biodiversity Areas **228**  
(10,658,032 ha)

• Critical habitats **11**  
(16,289 ha)

• Coral Reefs  
**1,257,684 ha**

• Seagrass Beds  
**498,341 ha**

• Mangrove Forest  
**311,400 ha**

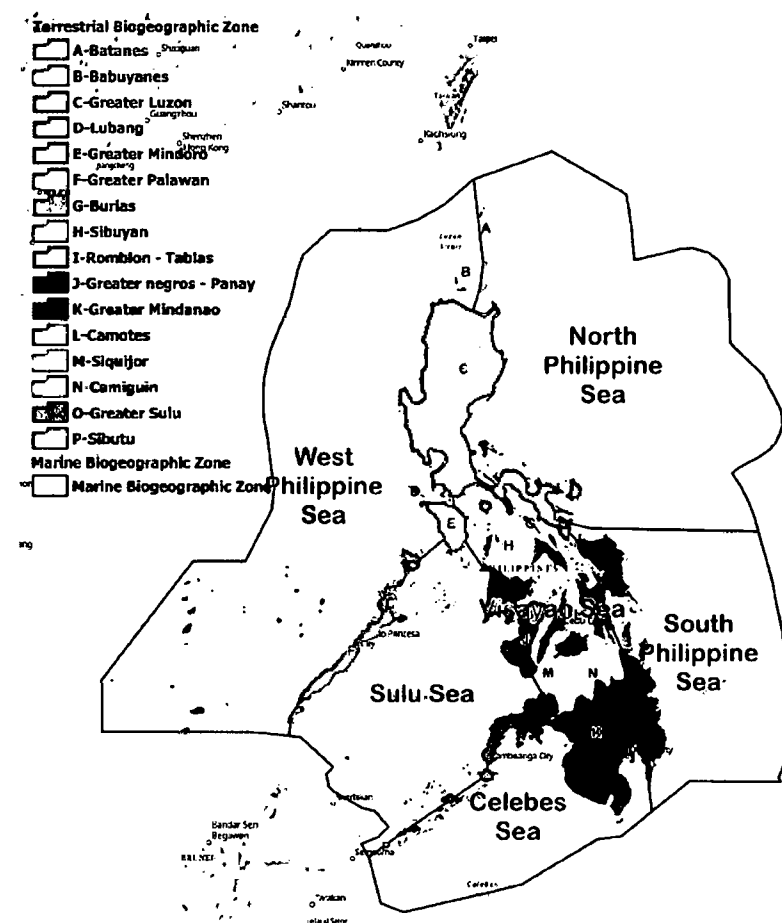


## Habitat Diversity

There are several identified realms in the Philippines (6 marine and 16 terrestrial areas) (DENR-UNEP, 1997), each with corresponding uniqueness which gave rise to the diversity of habitats and ecosystems.

This diversity of habitats and ecosystems, from lush rainforests and expansive wetlands to vibrant coral reefs and mangrove forests has fostered the evolution of a myriad of unique and endemic species.

### Biogeographic Regions in the Philippines



Source: Adopted and modified from DENR-UNEP, 1997

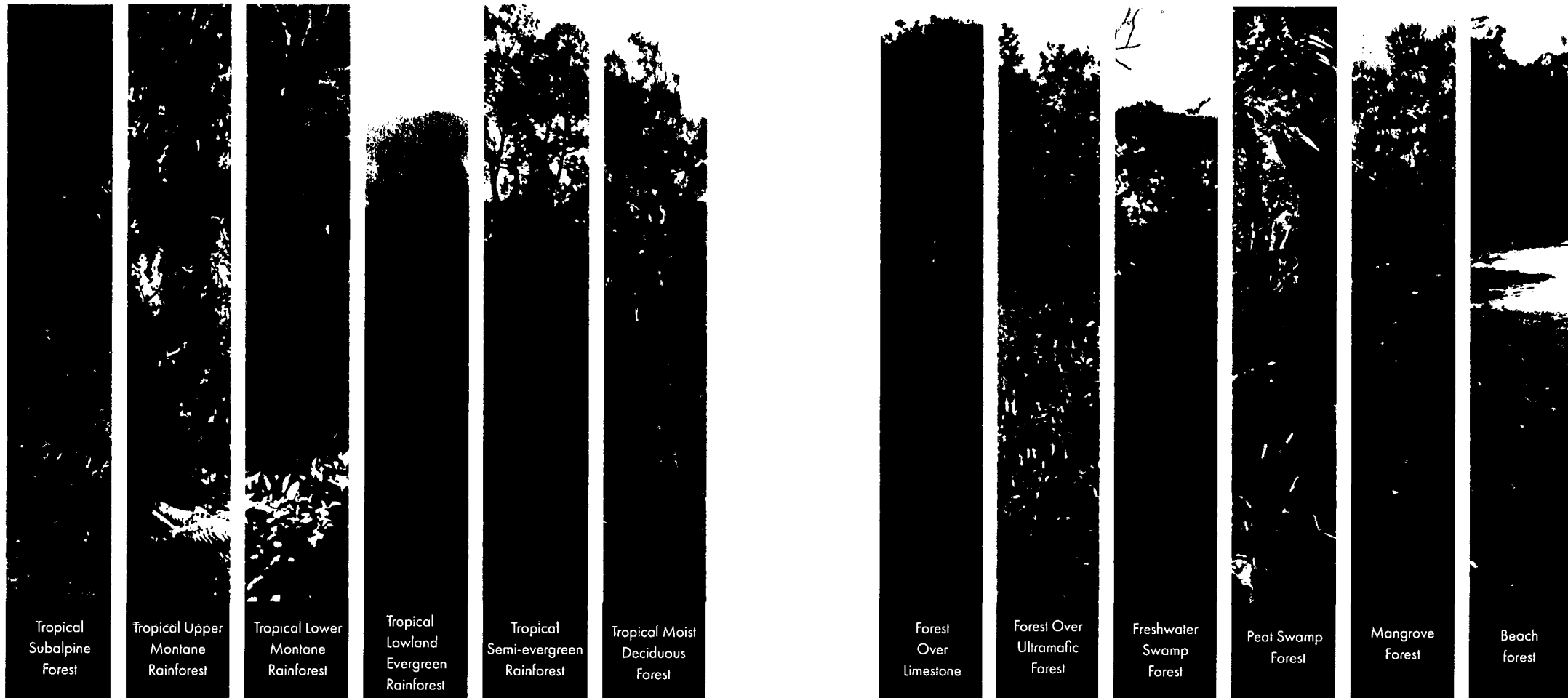
## 12 Forest formations

The Philippine forests are also highly diverse with 12 identified forest formations, each varying by elevation, soil type, water availability, and location. These include tropical lowland, lower montane, upper

montane, and subalpine rainforests, as well as forests over limestone and ultramafic rocks. Coastal ecosystems are represented by beach and mangrove forests, while peat swamp and freshwater swamp forests thrive

in waterlogged areas. Additionally, tropical semi-evergreen rainforests and tropical moist deciduous forests add to the country's rich biodiversity.

These forest types span inland, coastal, freshwater, and brackish water environments, highlighting the diverse ecological landscapes of the archipelago.



## The Turtle Islands Wildlife Sanctuary, a NIPAS under the management jurisdiction of the Bangsamoro Autonomous Region for Muslim Mindanao (BARMM).

The Turtle Island Wildlife Sanctuary (TIWS) is one of the major nesting grounds for hawksbill (*Eretmochelys imbricata*) and green sea (*Chelonia mydas*) turtles and is crucial to the conservation and management of these species. They are severely threatened, since eggs and meat are poached, traded, and eaten.

Tow-tawt is also home to the Philippine-endemic Sulu hornbill (*Anthracoeros montani*), considered to be the rarest and most endangered hornbill in the world due to its limited distribution, range and low population numbers.

Currently the Philippines has 14 (of the 62) ASEAN Heritage Parks (AHP) sites, 2 of which are designated as UNESCO World Heritage Sites. Of the current 14 Philippine AHP, 4 are situated in Luzon, 1 in the Visayas and 9 are in Mindanao. The TIWS is the 60th AHP site.



## Species Diversity

The Philippines' archipelagic nature and varied environmental conditions have driven high levels of biodiversity and endemism, as species evolve in isolation. Geographic isolation, where physical barriers prevent populations from mixing, leads to genetic divergence and speciation. Diverse habitats, from coastal areas to mountainous forests, exert different selective pressures, fostering species adaptation through adaptive radiation. Additionally, the founder effect, where small populations colonize new islands, drives rapid speciation. Notably, species like the tarsier (*Carlito syrichta*) show significant genetic variation across islands.

With over 25,000 endemic species, the Philippines is a biodiversity hotspot, with more

than 75% of its nearly 200 mammal species found nowhere else on Earth. The Philippines' unique biogeography has drawn global conservation attention, with many species being single-island endemics. The Wallace Line separates Asian fauna from the marsupials of Australia and New Guinea, while Huxley's modification further distinguishes the Philippines from the rest of Asia. Aside from Palawan, which is part of the Sunda Shelf, the rest of the archipelago is distinct. In Mindanao, species distribution follows landscape-level differences, with certain species found only in specific biodiversity corridors like Eastern, Central, and Western Mindanao, highlighting the need for tailored conservation strategies at both landscape and habitat levels.

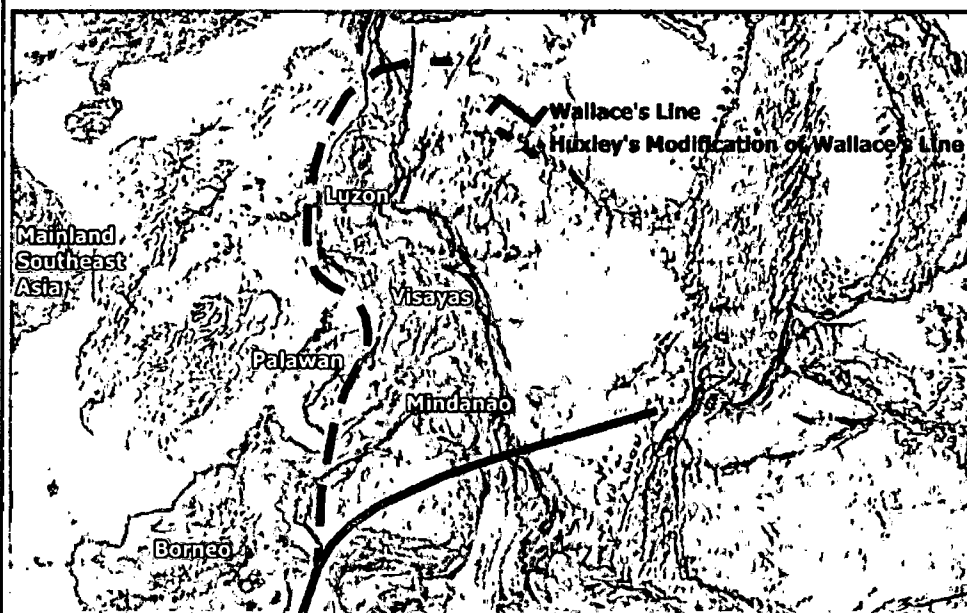


Fig 1 | Wallace's Line and Huxley's modification of the Wallace line

The Philippines has numerous endemic species, with some only found in specific regions in the country, eg, species found only in particular islands or even lakes. Each biogeographic region within the Philippines has its own unique species.

### Species unique to the Philippines per major biogeographic region



#### Photo credits

McGregor's pit viper - Charles Lee; Tablas drongo - Robert; Palawan flying fox and Sulu Hornbill - Godfrey Jakosalem; *Nepenthes truncata* - Pelsner, PB, JF Barcelona & DL Nickrent (eds) 2011 onwards Co's Digital Flora of the Philippines [www.philippineplants.org](http://www.philippineplants.org)

# THREATS TO PHILIPPINE BIODIVERSITY



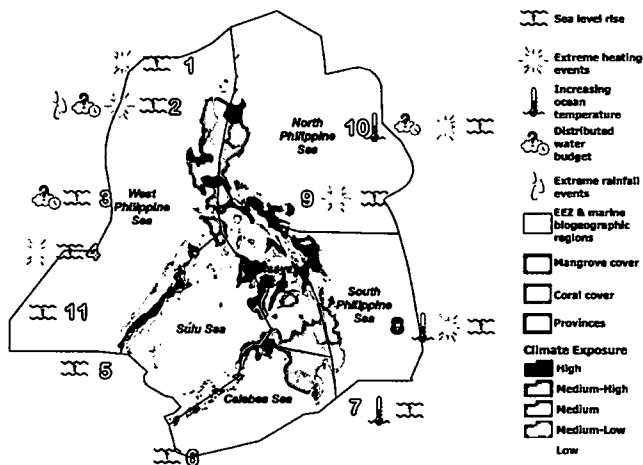
## 1. Climate Change

The country ranks 1st on the 2023 World Risk Index as the most vulnerable to disasters caused by extreme events. From 2011-2021, economic costs from natural hazards was PHP 673.3B in damages. Climate change worsens environmental pressures, endangering habitats and species, with economic impacts on fisheries, tourism, and ecosystems.



Snake Island, El Nido, Palawan, DENR-BMB

### High Exposure Areas and High Risk Sites to Climate Change



The National Adaptation Plan of the Philippines identifies 18 provinces as high exposure areas to climate change. Similarly, 18 provinces were also identified as high risk sites vis-à-vis fisher livelihood (David, L., et al., 2024).

Source:  
Adapted and modified from the National Adaptation Plan of the Philippines, 2023; David, L., et al., 2024



Forest fire in Surigao Watershed Forest Reserve



## 2. Habitat Loss and Fragmentation

Forest cover in the Philippines decreased from 21 million hectares in the early 1900s to 7.2 million hectares, due to logging, agricultural expansion, and urban development.



## 3. Overharvesting

As of 2017, 10 of 13 major fishing grounds were overfished. In addition, illegal wildlife trade, valued at 50 billion annually, threatens endemic species and biodiversity.



Mt. Manlingahan Protected Landscape, USAID-SIBOL



## 4. Pollution

The Philippines contribute to microplastic waste with about 163 million sachets daily, generating 2.3 million tons of plastic waste annually, with only 28% recycled. In addition, oil spills also contribute to marine pollution. In February 2024, MT Princess Empress spilled 800,000 liters of industrial fuel oil in Oriental Mindoro, affecting MIMAROPA, Regions VI, and CALABARZON.



Las Piñas - Parañaque Wetland Park, DENR-BMB



## 5. Invasive Alien Species

These disrupt native biodiversity and ecological processes through competition, predation, disease spread, and ecosystem alteration.



Buyo buyo in Allah Valley Protected Landscape, DENR-BMB



## 6. Institutional Challenges

Government agencies frequently concentrate on their specific mandates, often overlooking broader ecological contexts. However, biodiversity threats are complex and interrelated, demanding integrated and collaborative strategies that go beyond conventional boundaries to ensure effective conservation.

The MT Princess Empress Oil Spill damage assessment and ecosystem valuation for the mangrove ecosystem in Oriental Mindoro.

The oil spill from the sinking of the MT Princess Empress which sank off Oriental Mindoro on 28 February 2023, was loaded with 800,000 liters of Industrial Fuel Oil. MIMAROPA Regions VI and CALABARZON were impacted within a month.

Over 297 ha of seagrass was affected. Data on mangroves on the other hand had sequestration value of damaged mangroves pegged at 50,757,380 Php with a restoration cost of 149,080,333 Php (DENR-BMB).

Over 200 thousand individuals were impacted by this disaster, the livelihood of 27,850 farmers and fisherfolk had been affected, and production loss/cost of damage to agriculture reached P4.9 billion (87.5M USD). Environmental damage is estimated to be around P7 billion (125M USD) (NDRRMC SitRep No. 131).

Irreversible impacts have occurred, it will take some time for both humans and the environment to recover from this disaster. (UP Resilience Institute).

# ECOSYSTEMS: NATURE'S GIFTS THAT KEEP ON GIVING

Direct Forest Uses		
	(\$)	(₱)
Timber Wood	0104	572
Fuel Wood	0004	022
Water Use	2890	15895
PA Tourism Receipts	0001	0055
Forest Genetic Resources	0153	842

Indirect Forest Use		
	(\$)	(₱)
Carbon Stock	1,160,000	63,800,000
Soil Erosion Control	516,000	28,380,000
Wildlife Non-Use	5,680	312,400
Blue-naped parrots	3,575,116	196,631,380

## Summary Of Economic Valuation By Ecosystem Services per annum

- (\$) Economic Value (in Billion USD)
- (₱) Equivalent in PhP in 1 USD: PhP 55 conversion rate (in Billion PhP)

Agrobiodiversity		
	(\$)	(₱)
Crop	17,890	983,950
Livestock	4,600	253,000
Crop Wild Relatives	90,000	4,950,000

Coastal and Marine		
	(\$)	(₱)
Fishing & Aquaculture	2,140,000	117,700,000
Coral Reefs	5100	280,500
Seagrass	6,410	352,550
Mangroves	14,700	809,000
Beachscape	8,730	480,150
Marine-based activities	0,700	38,500
MPAs	0,323	17,770
Marine turtles	2,039,067	112,148,685

Urban Biodiversity		
	(\$)	(₱)
	6,910	380,050

Mineral Resources		
	(\$)	(₱)
	1,357,000	74,635,000

Source: An update on the compilation and synthesis of existing valuation studies of Philippine Biodiversity, (BIOFIN, 2024); Economic valuation and the conservation and protection of wildlife (DENR-ADB-GEF-IWT, 2021)



## **Apo Reef Natural Park (ARNP) is one of the legislated protected areas in the country covering 15,799 hectares located in Sablayan, Occidental Mindoro.**

Apo Reef is the largest coral atoll-like reef in the Philippines and the second largest contiguous coral reef in the world. ARNP has the major habitats: mangroves, beach, and marine serving as a source of food, nursery and spawning ground of several coastal and marine species, as well as a sanctuary for different bird species.

One of the best dive spots in the world with soft white sand, beautiful corals and waters hosting over 285 species of colorful marine life, including food and aquarium species and those lurking under crevices. The total economic value for this resource taking into consideration all its different ecosystem services is a mind-boggling Php 1 B (Milan, 2017; BIOFIN, 2024).



Apo Reef Natural Park

# LINKED TO INTERNATIONAL GOALS, GROUNDED ON LOCAL NEEDS

## Kunming-Montreal Global Biodiversity Framework

The KMGBF-PBSAP Wheel shows the relationships between and among the different global and national goals and plans. This highlights the interconnectedness of the global and national plans.

The Philippine Biodiversity Strategy and Action Plan (PBSAP), the National Adaptation Plan (NAP), the Philippine Development Plan (PDP), and the Sustainable Development Goals (SDGs) all converge on the urgent need to address biodiversity loss, climate change, and sustainable development.

### National Adaptation Plan

**Sectoral Outcome: Pillars for well-being and stability** • Agriculture and Fisheries and Food and Security • Water Resources

- Health
- Ecosystems and Biodiversity
- Cultural Heritage and Population Displacement and Migration

**Sectoral Outcome: Factors underpinning Economic resilience**

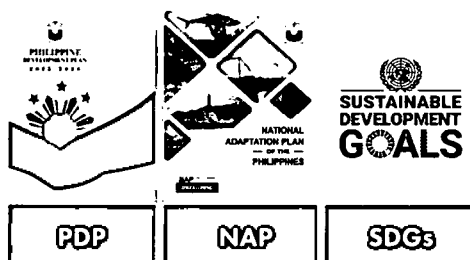
- Land Use and Human Settlements
- Livelihoods and Industries
- Energy, Transport and Communication

### Cross-cutting Outcomes:

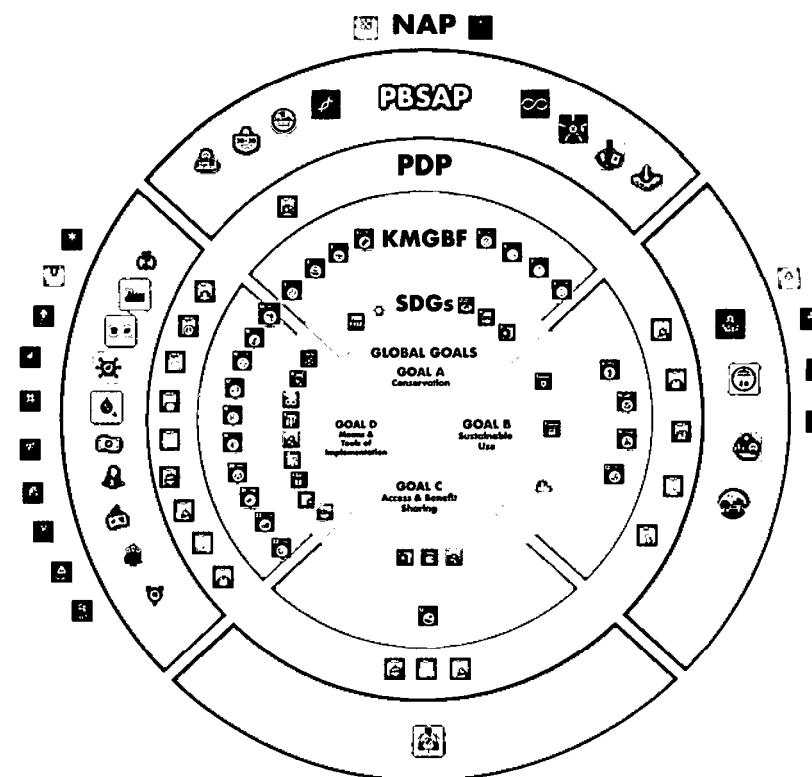
- Risk assessment and Knowledge Management
- Capacity development and Institutional Strengthening
- Technology transfer and development
- Climate finance and resource mobilization
- Research and Development
- Gender Equity, Diversity and Social Inclusion
  - Stakeholder management, IEC and advocacy
- Monitoring, Evaluation, Accountability and Learning

### Kunming-Montreal Global Biodiversity Framework

- KMGBF 1 Land and Sea Use Planning
- KMGBF 2 Ecosystem Restoration
- KMGBF 3 Protect and Conserve Land and Sea
- KMGBF 4 Active Management of Species and Genetic Diversity Harvest, Trade, and Use of
- KMGBF 5 Wild Species
- KMGBF 6 Invasive Alien Species
- KMGBF 7 Reduce Pollution
- KMGBF 8 Minimize the Impact of Climate Change
- KMGBF 9 Sustainable Use and Benefit-Sharing
- KMGBF 10 Sustainable Management of Agriculture, Aquaculture, and Forestry
- KMGBF 11 Regulation of Air, Hazards and Extreme Events
- KMGBF 12 Increase Access to Green and Blue Spaces
- KMGBF 13 Equitable Sharing of Benefits from Genetic Resources Mainstreaming
- KMGBF 14 Production and Supply Chains
- KMGBF 15 Eliminate Unsustainable Consumption
- KMGBF 16 Manage Impacts of Biotechnology
- KMGBF 17 Eliminate Harmful Incentives
- KMGBF 18 Resource Mobilization
- KMGBF 19 Strengthen Capacity Building and Development
- KMGBF 20 Traditional Knowledge, Awareness, Education and Research
- KMGBF 21 Gender Equality
- KMGBF 22 of IPLCs
- KMGBF 23



## PBSAP Wheel

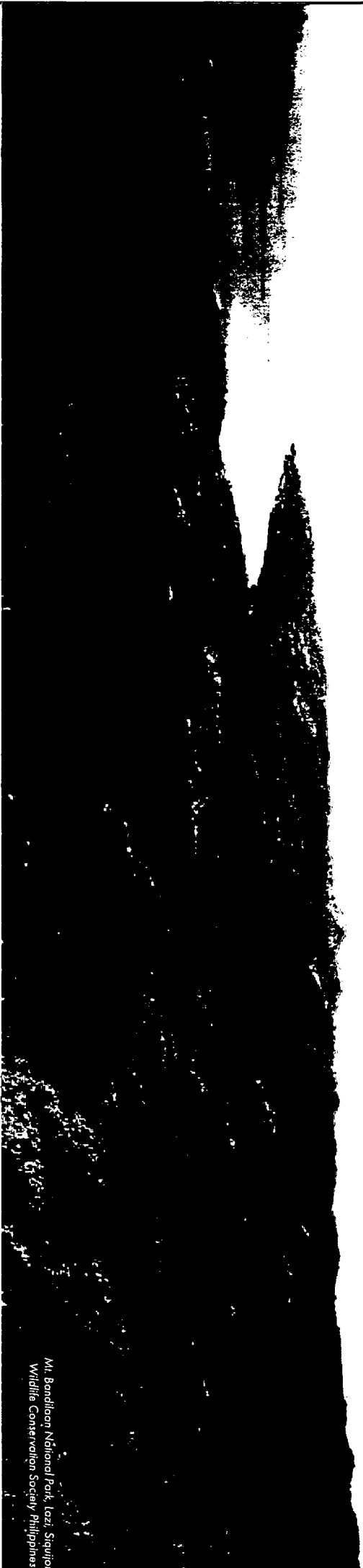


### Philippine Development Plan

- PDP 1 Promote Social and Human Development
- PDP 2 Reduce Vulnerabilities and Protect Purchasing Power
- PDP 3 Increase Income-earning Ability
- PDP 4 Modernize Agriculture and Agribusiness
- PDP 5 Revitalize Industry
- PDP 6 Reinvent Services
- PDP 7 Advance Research and Development, Technology, and Innovation
- PDP 8 Promote Trade and Investments
- PDP 9 Promote Competition and Improve Regulatory Efficiency
- PDP 10 Ensure Macroeconomic Stability and Expand Inclusive and Innovative Finance
- PDP 11 Promote Peace and Security and Enhance
- PDP 12 Administration of Justice
- PDP 13 Practice Good Governance and Improve Bureaucratic Efficiency
- PDP 14 Accelerate Climate Action and Strengthen Disaster Resilience

### 17 Sustainable Development Goals

- SDG 1 No poverty
- SDG 2 Zero hunger
- SDG 3 Good health and well-being
- SDG 4 Quality education
- SDG 5 Gender equality
- SDG 6 Clean water and sanitation
- SDG 7 Affordable and clean energy
- SDG 8 Decent work and economic growth
- SDG 9 Industry, innovation and infrastructure
- SDG 10 Reduced inequalities
- SDG 11 Sustainable cities and communities
- SDG 12 Responsible consumption and production
- SDG 13 Climate action
- SDG 14 Life below water
- SDG 15 Life on land
- SDG 16 Peace, justice, and strong institutions
- SDG 17 Partnerships for the goals

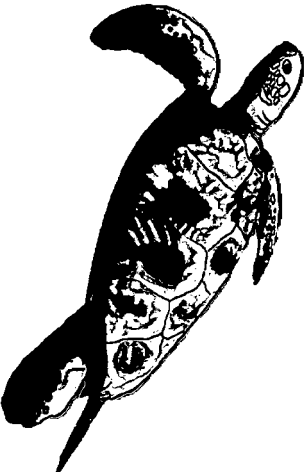


Mt. Bondillon National Park, Iloilo, Siquijor  
Wildlife Conservation Society Philippines

# PBSAP TAGLINE AND VISION

The PBSAP 2024-2040 tagline, "Biodiversity nurtured, resiliency improved, our future secured," highlights the connection between nature and humanity, emphasizing the need to protect biodiversity while building resilience against climate change and environmental degradation. By nurturing ecosystems, the Philippines aims to safeguard natural resources vital for the economy and livelihoods, ensuring the well-being of future generations.

water, and disaster risk reduction, aligning conservation with social and economic priorities for a secure, prosperous future.

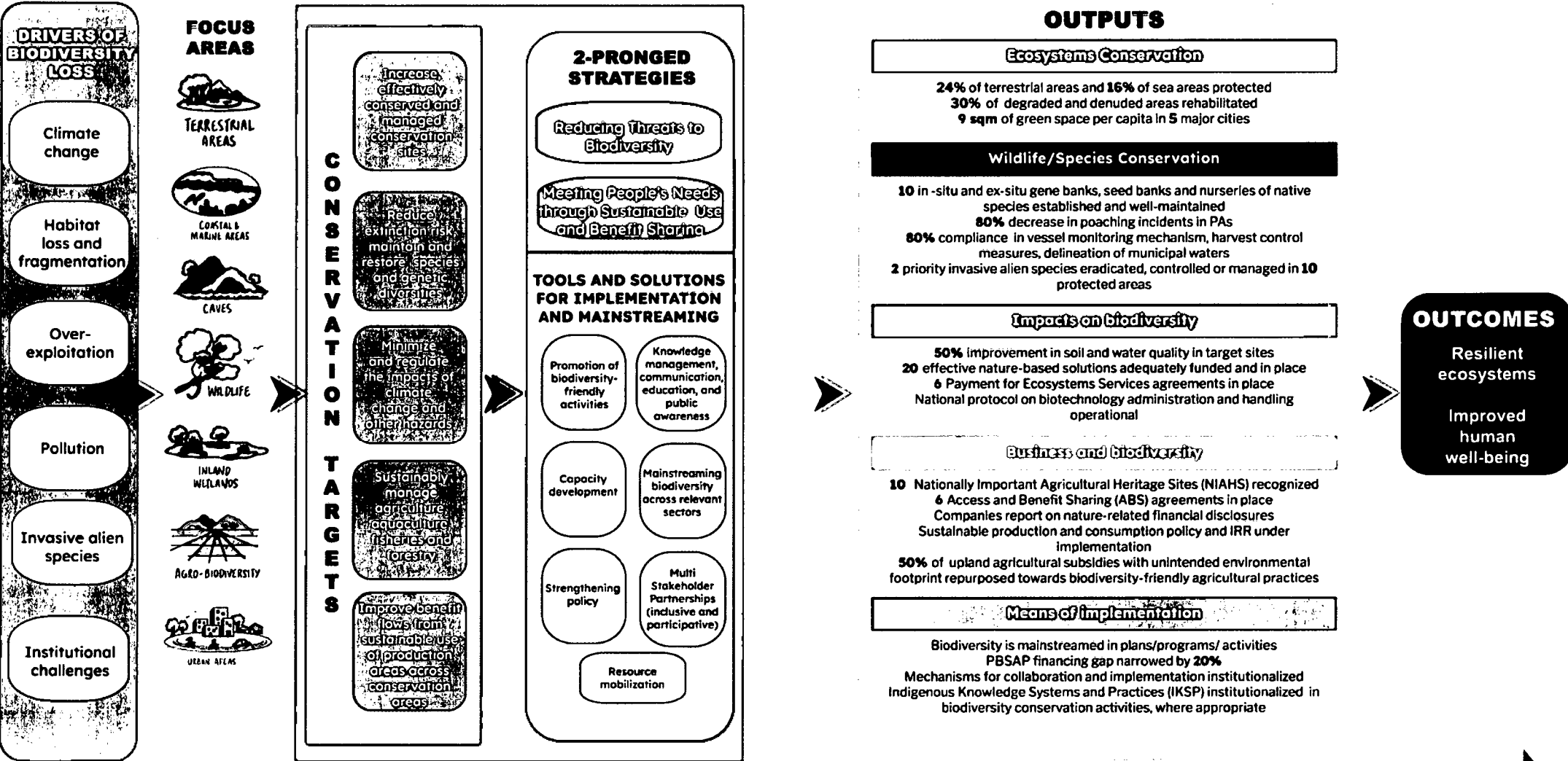


The vision for 2040—where biodiversity is valued and conserved through inclusive, transformative actions—calls for broad societal engagement in conservation. This vision promotes climate-resilient ecosystems that provide essential services like clean air,

# PBSAP FRAMEWORK

The PBSAP 2024-2040 Framework was developed through extensive consultations, reflecting a collaborative and inclusive process sustainable use and benefit sharing. It aligned with global biodiversity goals under the promotes biodiversity-friendly activities, Kunming-Montreal Global Biodiversity Framework (KMGBF), it builds on the previous and mainstreams biodiversity across sectors. PBSAP and addresses key drivers of biodiversity key pillars include capacity building, loss in the Philippines. The framework targets stakeholder partnerships, and resource primary threats habitat loss and fragmentation mobilization. Divided into five themes—overexploitation, climate change, invasive Ecosystem Conservation, Wildlife species, pollution, and institutional challenges. Conservation, Business and Biodiversity, managing 30% of terrestrial and marine areas implementation—the framework ensures (30x30), reducing extinction risks, promoting coordinated action for ecosystem and species sustainable agriculture and fisheries, and conservation, sustainable development, and minimizing climate impacts to secure ecological long-term protection of Philippine biodiversity balance.

PBSAP FRAMEWORK



2024

2040

## PBSAP 2024-2040 TARGETS AND INDICATORS

The PBSAP 2024-2040 will take the biogeographic approach in biodiversity conservation and management, looking into interconnectedness of the species and ecosystems within biogeographic realms, and the uniqueness of each specific realm within the country.

The first key target is to increase effectively managed conservation areas to 30% of the country's terrestrial and marine ecosystems by 2030. This ambitious "30x30" goal seeks to enhance habitat protection and ensure ecological connectivity across various landscapes and seascapes.

The second key target is to reduce extinction risk, maintain, and restore species and genetic diversity. This includes actions to prevent species extinction, particularly for endangered and endemic species, and to protect the genetic diversity within species that is critical for their long-term survival.

The third key target is to minimize and reduce the impacts of climate change and other hazards and since the Philippines is highly vulnerable to climate-related disasters,

this target emphasizes the need for nature-based solutions like mangrove restoration, reforestation, and sustainable watershed management.

The fourth key target focuses on sustainably managing agriculture, aquaculture, fisheries, and forestry to ensure that these productive sectors are aligned with biodiversity conservation principles, promoting practices that are environmentally sound and economically viable.

Finally, the fifth key target is to improve benefit flows from sustainable use of production areas across conservation areas ensuring that biodiversity conservation delivers tangible benefits to local communities through sustainable livelihoods, ecosystem services, and economic opportunities. Promoting biodiversity-friendly enterprises and equitable benefit-sharing mechanisms underscores the PBSAP's vision of creating a balance between conservation efforts and human well-being.



### THEME 1: ECOSYSTEMS CONSERVATION



1



2



3



12

### THEME 2: WILDLIFE/SPECIES CONSERVATION



4



5



6



9

### THEME 3: IMPACTS ON BIODIVERSITY



7



8



11



17

### THEME 4: BUSINESS AND BIODIVERSITY



10



13



15



16



18

### THEME 5: MEANS OF IMPLEMENTATION



14



19



20



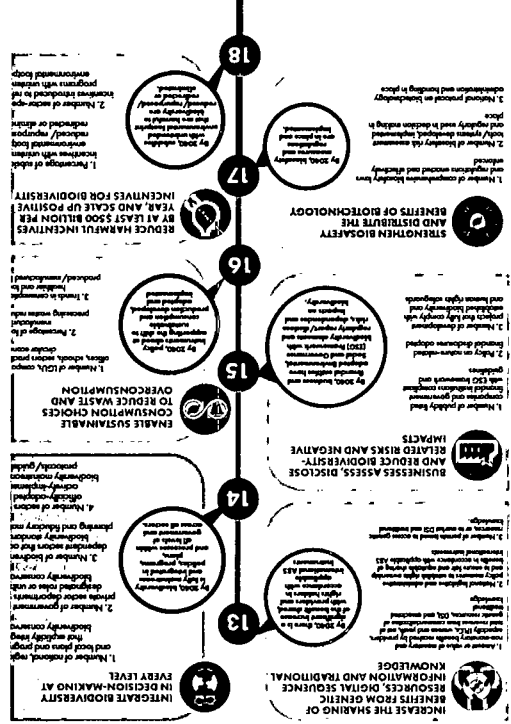
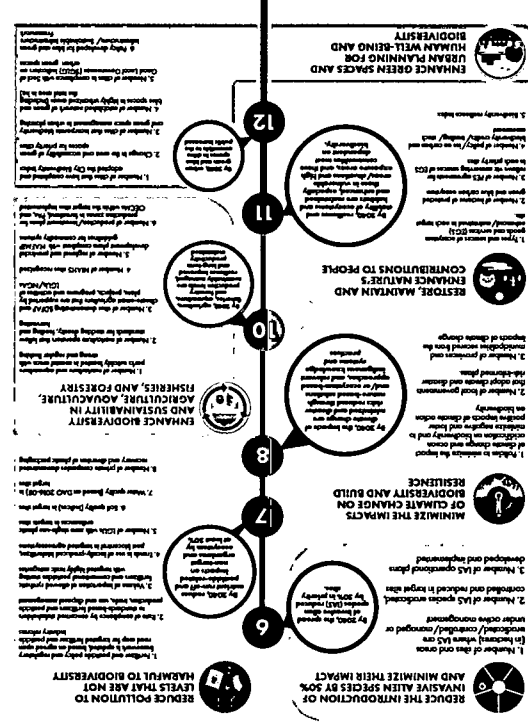
21



22



23



## THE 30X30 TARGET

The 30x30 global target emphasizes the need to conserve at least 30% of terrestrial, inland water, marine, and coastal areas by 2030. In the Philippines, expanding protected areas and recognizing Other Effective Area-Based Conservation Measures (OECMs) is crucial for safeguarding the unique and diverse ecosystems, which host a rich array of endemic species, such as the critically endangered Philippine eagle. Adequate protected and conserved areas provide essential habitats for wildlife, such as vast hunting grounds needed by apex predators like the Philippine eagle.

The country aims to protect 24% terrestrial and 16% coastal and marine areas, covering 7.20 million hectares of Philippine land area and 35.24 million hectares of Philippine sea area by 2040.

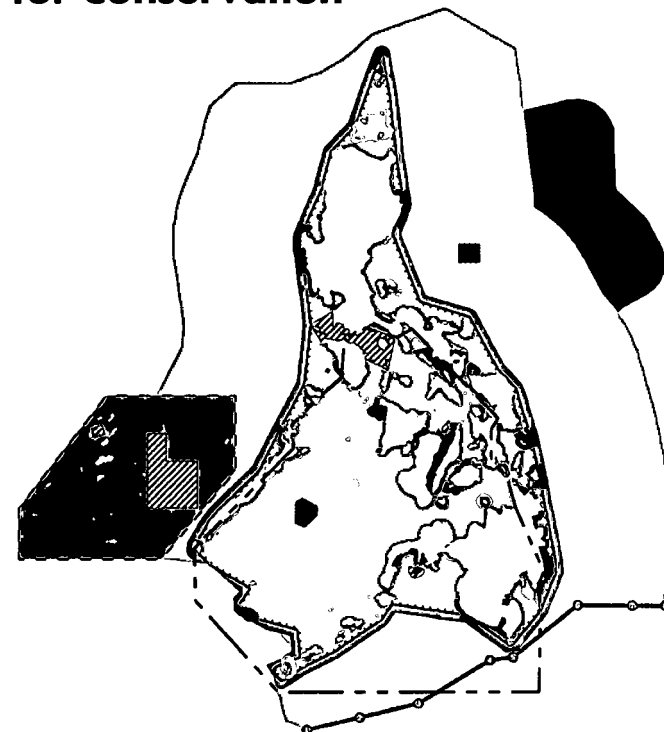
## Potential Terrestrial Areas for Conservation



### LEGEND

- Closed forest for conservation
- Potential OECM: Critical Watershed
- Proposed Protected Areas
- Proposed Critical Habitat
- Critical Habitat
- ICGA
- MPSA
- Terrestrial NIPAS
- Terrestrial Key Biodiversity Areas
- Closed Forest
- Production & Protection in Forestland**
  - Production Forest
  - Protection Forest
- Land Classification**
  - Forestland
  - Alienable and Disposable
  - Administrative Boundary

## Potential Marine Areas for Conservation



### LEGEND

- Maritime Domain\***
  - Archipelagic Baseline
  - Archipelagic / Internal Waters
  - Territorial Sea
  - Exclusive Economic Zone
  - Extended Continental Shelf
  - Kalayaan Island Group
  - PH-RI EEZ Turning Point
  - PH-RI Agreed EEZ Boundary Line
- Baseline**
  - NIPAS MPAs
- Potential Areas for Conservation**
  - Proposed MPA
  - MPAN (Less NIPAS)
  - MKBA for Protection
  - MKBA
  - Sulu-Sulawesi Marine Eco Region





\*Indicative

Achieving this target is vital not only for preserving its globally significant biodiversity but also for maintaining ecosystem services that support the livelihoods of millions of Filipinos. Moreover, recognizing and respecting the rights of indigenous peoples and local communities in managing these areas ensures sustainable conservation outcomes and fosters stronger stewardship of natural resources. By expanding and effectively managing protected areas, the Philippines can protect its natural heritage, support sustainable development, and contribute significantly to global biodiversity conservation efforts.





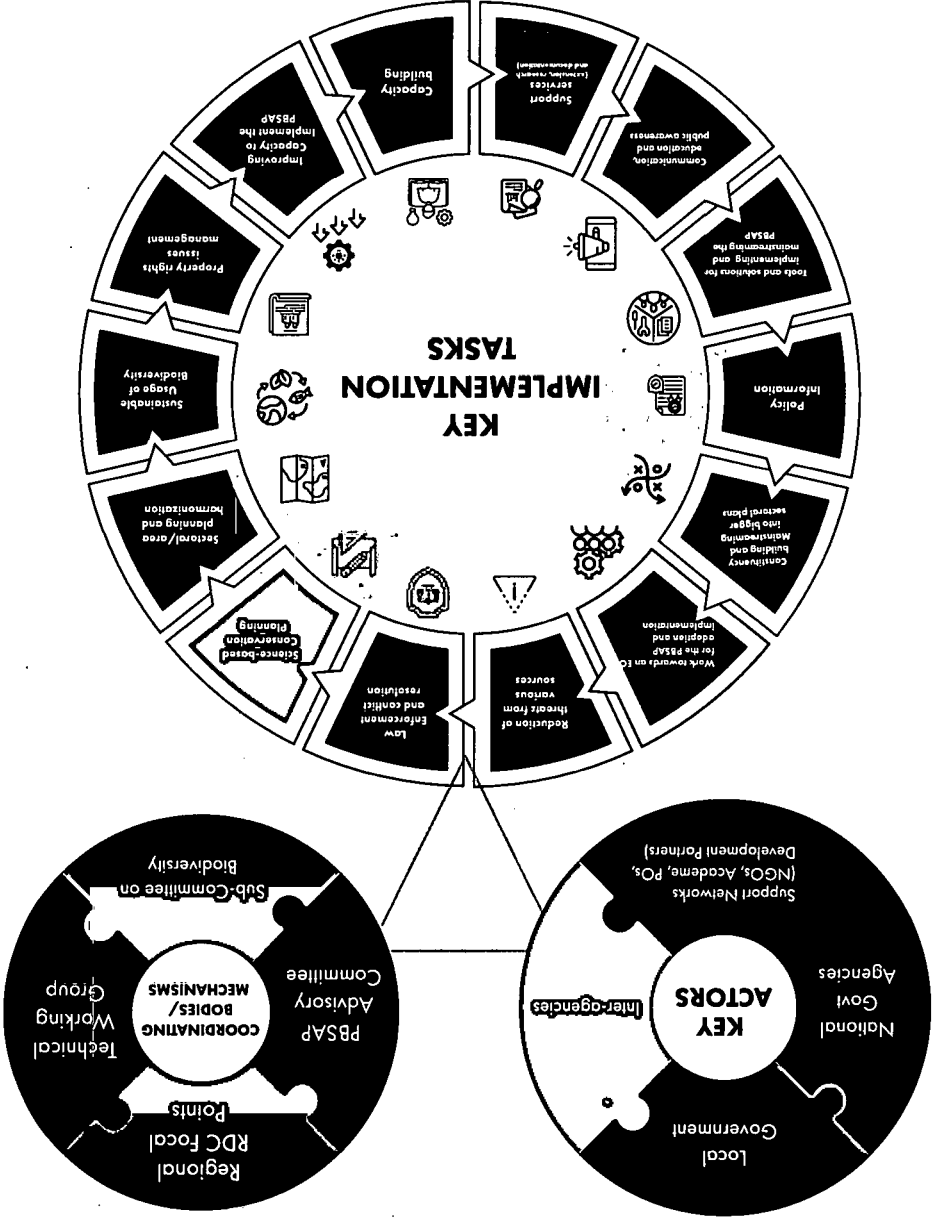
# IMPLEMENTING THE PBSAP: A COMPREHENSIVE APPROACH

The PBSAP 2024-2040 builds on the previous PBSAPs' learnings from the development and implementation of its previous iterations. Key strengths and improvements include the following:

-  Specific/measurable targets
-  Implementing mechanisms/institutional arrangements
-  Synergy with other government plans
-  Identification of specific government agencies and/or indicators and co-leading specific targets

The EO will provide guidance on how to operationalize PBSAP at the national and local levels. The DENR will serve as the lead agency with a co-chair, supported by a Technical Working Group, the National Committee.

-  Cost estimates (which accompanies this abridged version)
- 





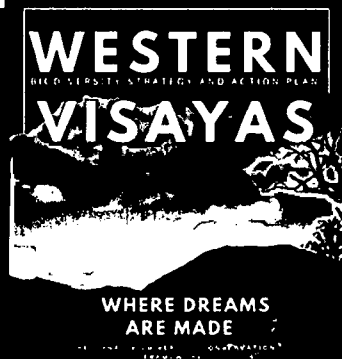
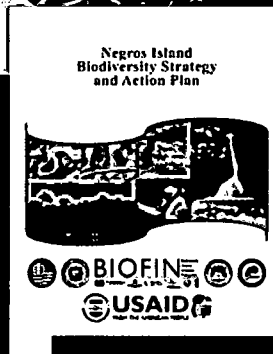
# INITIATIVES TO IMPLEMENT THE PBSAP

## Western Visayas BSAP: Pioneer in Localization

The current NIBSAP 2018-2028 is an example of the regionalization/localization of the PBSAP 2015-2028. Both regions have adopted the landscape-seascape integrated management approach. The two provinces, two regions, one island have similar goals and targets, however they have different actions and strategic approaches. Biodiversity financing allocated from local funds has also gone up over the years for both Negros Oriental and Negros Occidental, a clear indication of the importance of biodiversity in their lives. In 2022, the COP pushed forward the KMGBF and thus the NIBSAP needed to be aligned to these targets.

The Regional Development Council (RDC) supported the NIBSAP through their recommendation of RDC VI Resolution No. 145 in 2023 "Endorsing the crafting of the Western Visayas Biodiversity Strategy and Action Plan by DENR and BMB and enjoining the provincial LGUs and Regional line agencies to provide funding/technical support towards the successful formulation of this regional biodiversity plan".

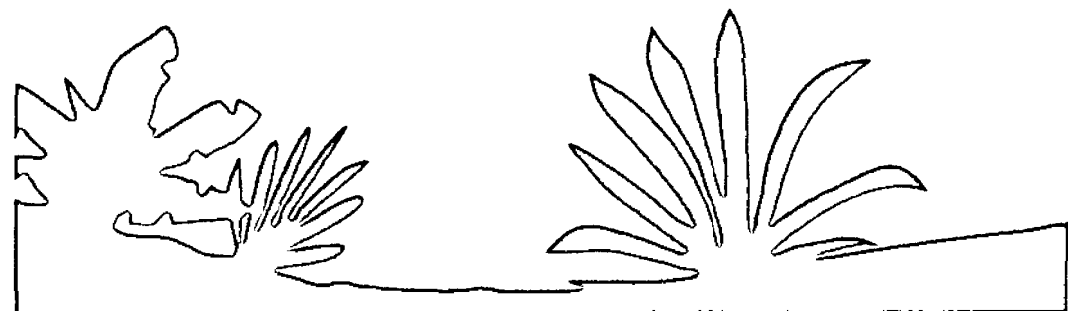
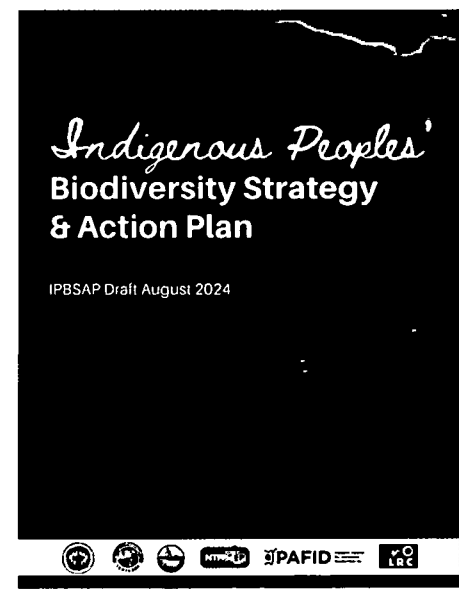
With the consolidation of the Negros Oriental and the Negros Occidental, there will be one BSAP, the WVBSAP.



## A Case for Inclusion: The Indigenous Peoples' Biodiversity Strategy and Action Plan (IPBSAP)

The Indigenous Peoples' Biodiversity Strategy and Action Plan (IPBSAP) was formulated to support the Philippine targets after a series of consultations among Indigenous peoples representatives spanning over a period of one year. The first of its kind, the IPBSAP presented at the PBSAP National Consultation is a testament to the importance of the indigenous people's inclusion in the PBSAP (Target 22). Their unwavering stewardship of the forests is critical in the preservation of the country's rich biodiversity and ensures the sustainability of crucial ecosystems, indigenous values, ways of life, knowledge systems and collective actions that have played a vital role in conserving and managing the land waters and resources within their territories.

A living document, the IPBSAP is formulated by and for indigenous peoples. "Our ancestors have been protecting nature at the cost of their lives. Let us be guided by the wisdom of our forebears and in turn, let us commit ourselves to protecting the planet and our country for the sake of future generations."





San Juan, Siquijor  
Wildlife Conservation Society Philippines



## Trailblazing Action: Regional Development Council XII supports PBSAP

The Regional Development Council of Region XII (Soccsksargen) passed a resolution “Supporting the Philippine Biodiversity Strategy and Action Plan (PBSAP)”. This will pave the way for the development of a regional mainstreaming of activities targeted by the PBSAP since it was found

to be “supportive of the Soccsksargen Regional Development Plan (RDP) 2023-2028. RDC XII No. 12, Series of 2024 will ensure that local and regional actions will in turn strengthen the achievement of the national targets.



## Regional Development Council III on Unsustainable Agriculture and Subsidies with Unintended Ecological Impacts

Use of herbicides in upland agriculture leads to the destruction of vegetative cover mending the sloping area vulnerable to soil erosion and upland dwellers like BDFAP, identifying sites landslides, ultimately cause siltation in rivers, flooding lowlands. This is further exacerbated by government incentives on the use of glyphosate-tolerant corn varieties and planting them in vast areas. The provincial of Cagayan sought assistance to “encourage farmers to halt destructive upland corn farming practices such as the use of herbicides”. RDC III Resolution No. 02-03 series of 2022 – “Adopting the proposed measures to address the use of herbicides in

upland corn farming. This is an opportunity for DENR and DA to provide alternatives to upland dwellers like BDFAP, identifying sites to pilot activities and addressing the problem of subsidies with unintended environmental impacts. It may also be a site converted to organic agriculture area with the active support of the DA.

This RDC III resolution is the type of regional/local action that can be supported through catalytic work by the JAO on BDFAP regional IWG.

## Measuring What We Treasure: Natural Resource Accounting



The Sukat ng Kalikasan supports R.A. No. 11995 - (Philippine Environment and Natural Capital Accounting System (PENCAS)), mandating comprehensive natural resource accounting - assessing the physical and monetary value of ecosystems and providing critical data for informed policymaking, resource allocation, and public awareness.

The Sukat ng Kalikasan framework offers science-driven, standardized guidance for evaluating biodiversity and ecosystem services at local, regional, and national scales by assigning economic values,

helping to bridge the gap between human demands and nature's capacity to meet them and aligning with the broader goals of biodiversity protection under the Global Biodiversity Framework (GBF) and the High Ambition Coalition for Nature and People (HAC) - a forward-thinking approach essential in achieving the 30x30 target and ensuring the long-term sustainability of the Philippines' rich biodiversity.



## Private Sector Engagement: Energy Development Corporation Contribution

The Energy Development Corporation (EDC), largest renewable energy producer and the world's largest vertically integrated geothermal energy relies heavily on lush forests to sustain its reservoir, hence, comprehensive watershed management is crucial. It is a private corporation deputized to manage watersheds within 4 geothermal reservations covering 127,608 hectares of forestlands and implementing the Biodiversity Conservation and Monitoring Program (BCMP) as shown in the table below.

Geothermal Plant Location	KBA	Reservation (has.)	Forestland (has.)	Flagship Species
Bacon-Manito	Bacon-Mani-to	125,000	12,664	Mapilig, Golden-crowned Flying Fox
Tongonan	Anong-Lobi	107,000	47,930	Katmon bayani, Philippine Warty Pig
Palinpinon	Cuernos de Negros	133,000	66,313	Red Lauan, Visayan hornbill
Mt. Apo	Mt. Apo National Park	701	701	Almaciga, Apo Myna

By considering ecological, social, and economic factors, EDC's holistic approach to the conservation of flagship fauna promoted long-term viability and sustainability of conservation initiatives.

*"Knowing the importance of biodiversity and encountering them up close, we have become more protective of the wildlife around our energy sites."*  
-Energy Development Corporation



# Visual Summaries of the PBSAP National Consultation

## PBSAP VISIONING

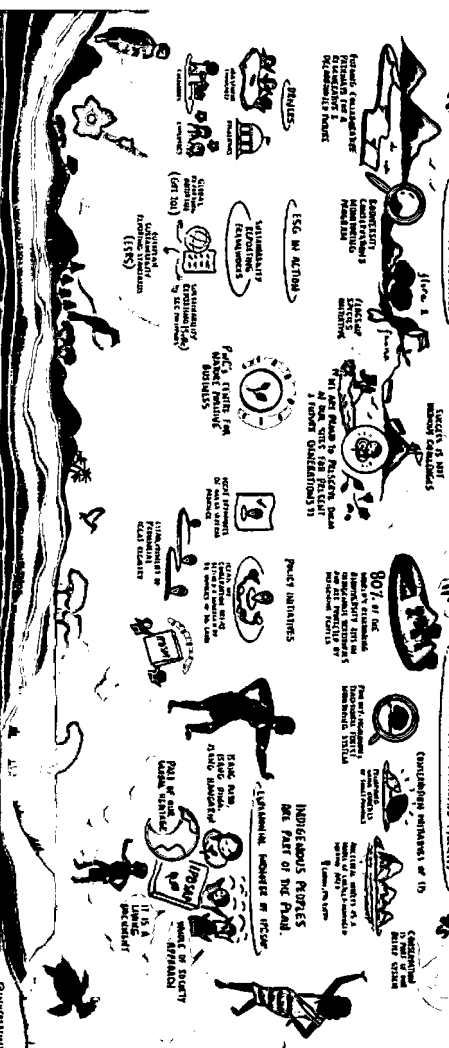
**National Consultation on the Updating of the Philippine Biodiversity Strategy and Action Plan 2015-2028**  
in line with the Kunming-Montreal Global Biodiversity Framework  
**AUGUST 6-7, 2024**



## INITIATIVES AND GOOD PRACTICES: BIODIVERSITY CONSERVATION AND MANAGEMENT

National Commission on the Updating of the Philippine Biodiversity Strategy and Action Plan 2015-2028  
in line with the Kunming-Montreal Global Biodiversity Framework  
AUGUST 6-7, 2024

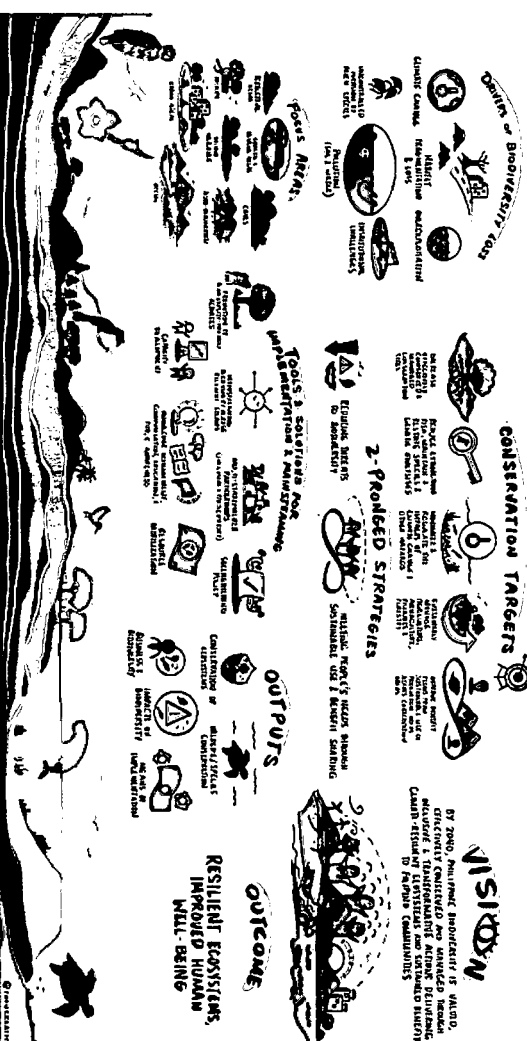
**PRIVATE SECTOR CONTRIBUTIONS**



**PBSAP FRAMEWORK 2024-2040**  
 PROGRESS MEASURED, RESULTS IMPROVED, OUR FUTURE SECURED

**BIODIVERSITY NURTURED, RESILIENCY IMPROVED, OUR FUTURE SECURED**

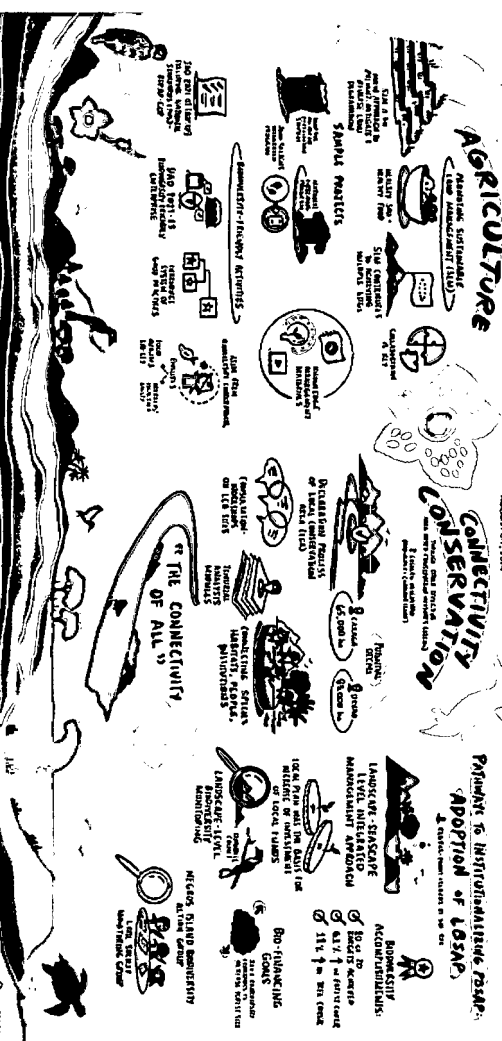
## CONSERVATION TARGETS



## INITIATIVES AND GOOD PRACTICES: BIODIVERSITY CONSERVATION AND MANAGEMENT

National Census on the Updating of the Philippine Biodiversity Strategy and Action Plan 2015-2022  
in line with the Kunming-Montreal Biodiversity Framework  
AUGUST 6-7, 2024

**AGRICULTURE**  
Needlework (SUTRANALIG)  
(and MANCENANT (SUTRANALIG))





**BAGONG PILIPINAS**