

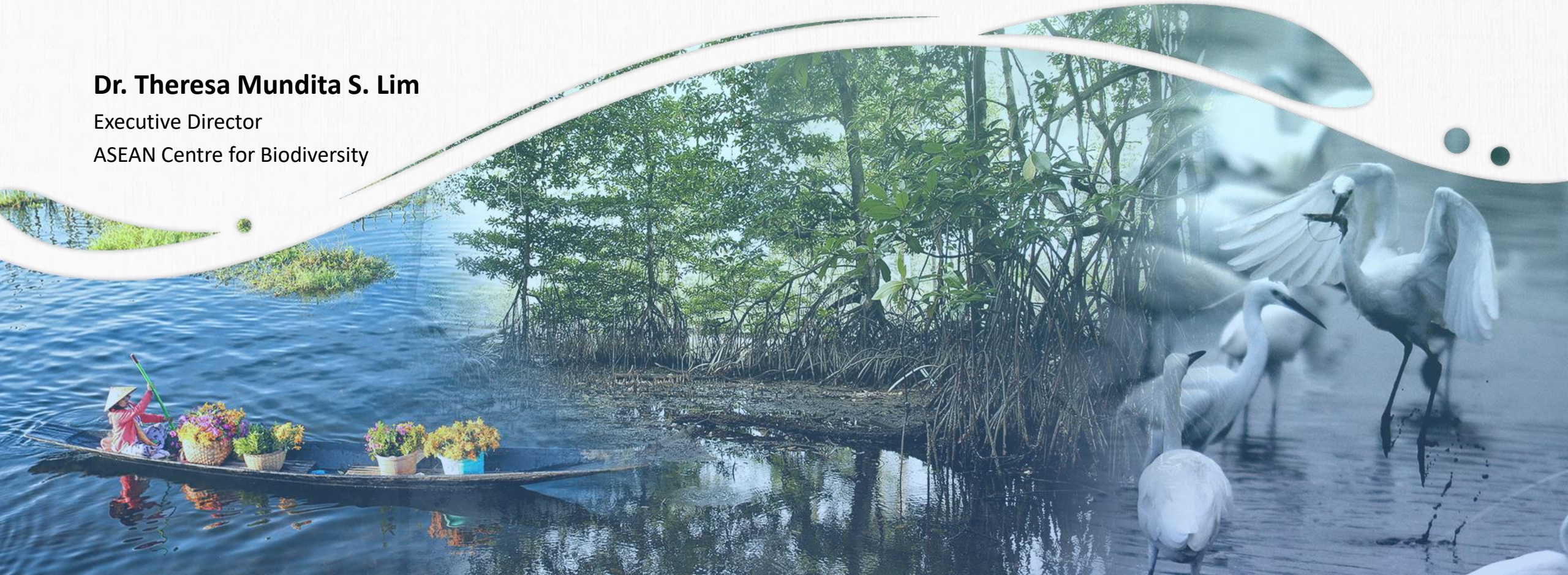
Water for Ecosystems and Biodiversity

INTERCONNECTIVITY IN WETLANDS

Dr. Theresa Mundita S. Lim

Executive Director

ASEAN Centre for Biodiversity



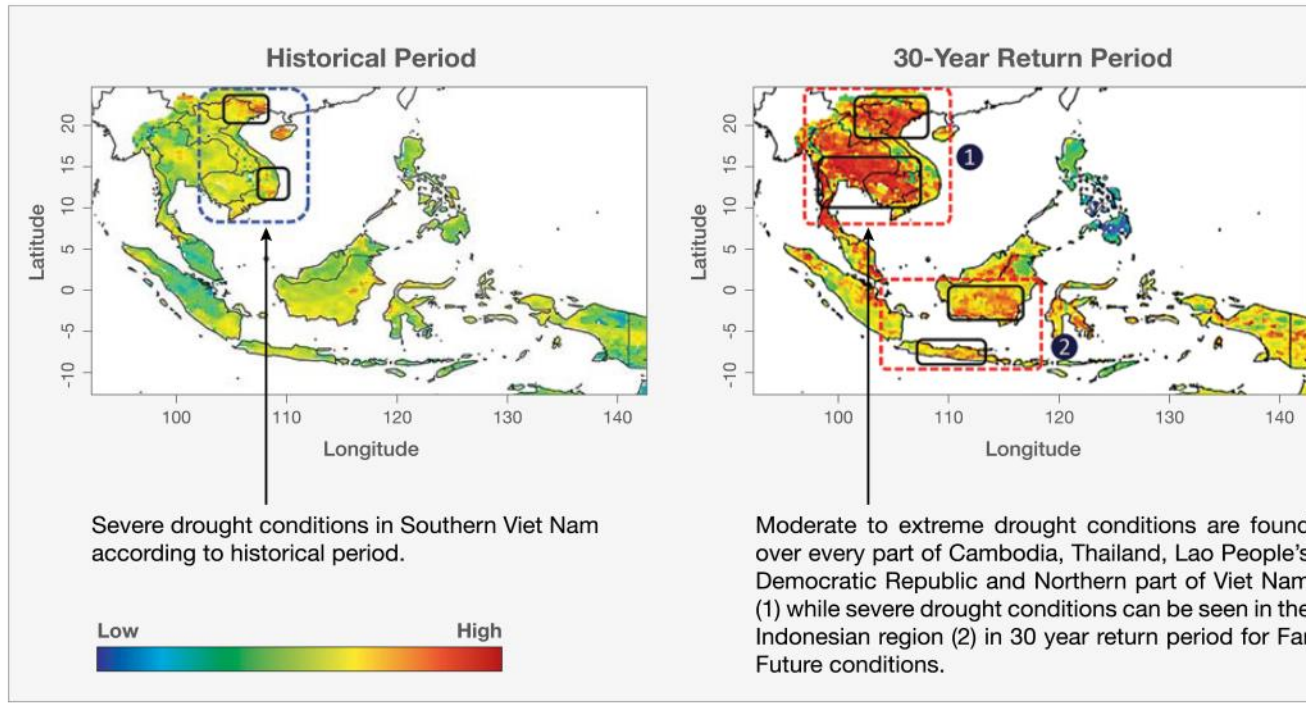


Environmental damages

Global Water Crisis

Worsening climate
scenarios

Figure 1-21 – Projected drought conditions – less extreme El Niño, far future



GLOBAL WATER CRISIS

Source: Ready for the Dry Years: Building resilience to drought in South-East Asia (asean.org)



WATER FACTS

2.5%
of the Earth's water is
freshwater



only
1%
USABLE



U Min Thuong National Park
Viet Nam



Agusan Marsh Wildlife Sanctuary
Philippines



Sungei Buloh Wetland Reserve
Singapore

In the ASEAN region

Inland waters and wetlands

2 million sq km



60%

of the
world's
tropical
peatlands



42%

of the
world's
mangrove
forests

1 billion
people dependent
on wetlands

**Interconnectivity
in wetlands**

40%

World's species in
living in wetlands



Acanthocobitis rubidipinnis

Photo by Hasselgreen Jr., P.C., Fishbase

Species depend on water for habitats, for survival, and regulation of bodily functions.



**Rare and endemic
freshwater fauna**



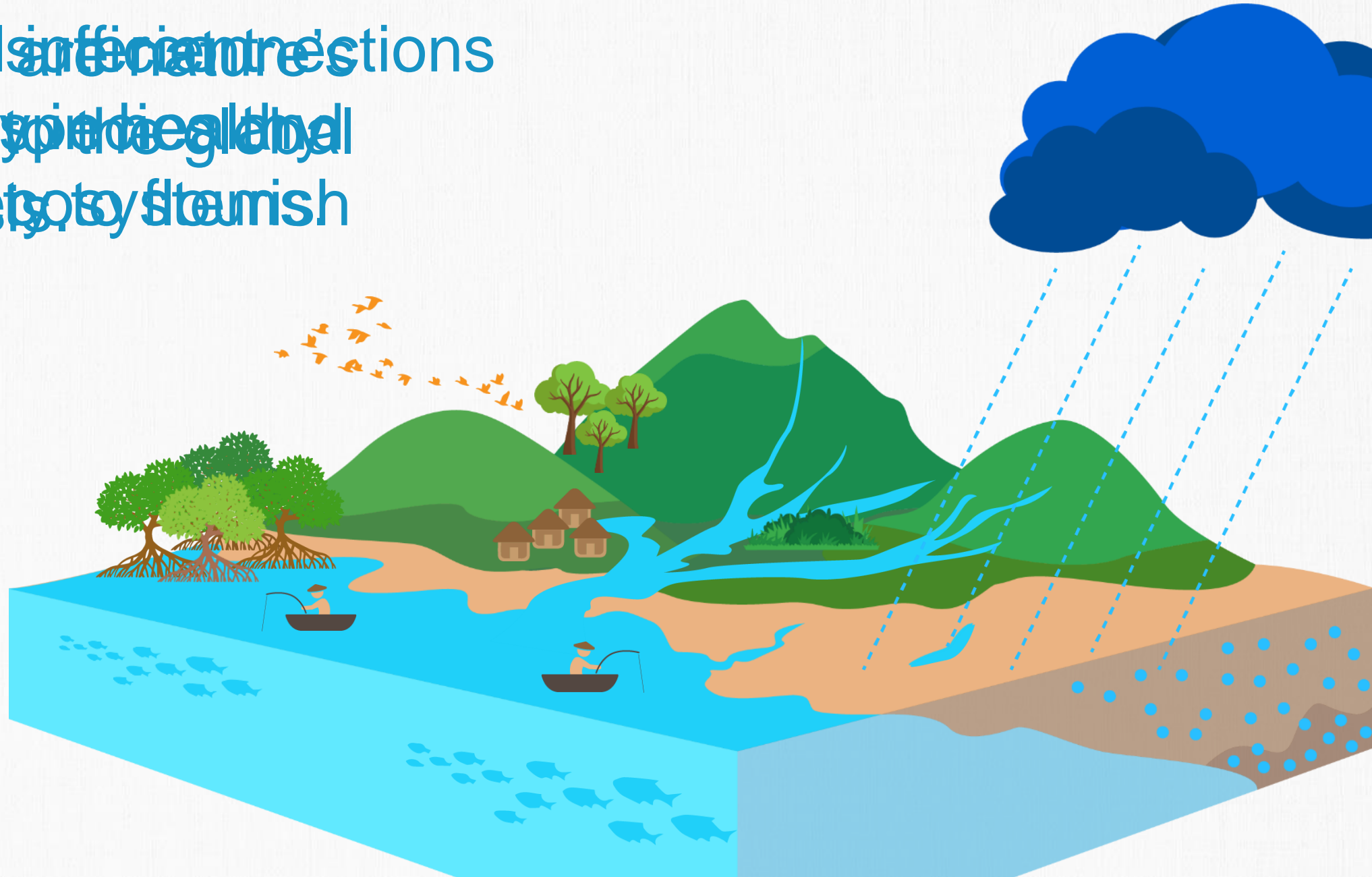
©Roland Wirth, speciesonthebrink.org

Mekong Giant Catfish
(Pangasianodon gigas)

Wetlands and Migratory Birds



Biological interactions
are important for the global
water cycle to flourish



Species around these ecosystems have crucial roles that help wetlands serve its functions and values.



FUNCTIONS OF WETLAND SPECIES

Floating islands
improve the quality of
urban catchments

CITYGREEN#5: Biodiversity Magnets in Urban Wetlands
Floating Islands
Photos by Benjamin Lee



FUNCTIONS OF WETLAND SPECIES

Some vegetation can uptake heavy metals.



Bayog (*Bambusa merilliana*)



Kawayan tinik (*Bambusa blumeana*)

Source:
Handbook on
Erect Bamboo
Species Found in
the Philippines

Giant bamboo (*Dendrocalamus asper*)



Freshwater bivalves can help
remove contaminants.



Corbicula fluminea



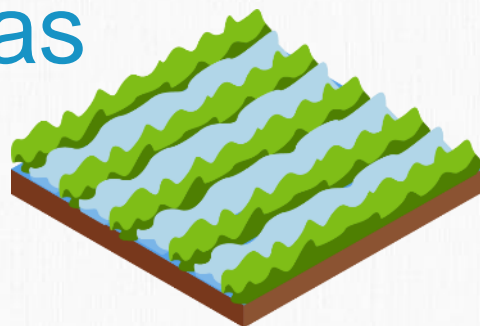
Cristaria plicata



Functional wetlands not only provide water
protection, save species and
for drinking, but also for economic uses
such as agriculture and energy.



Irrigate
agricultural
areas



Improve soil
fertility



Agricultural sector
in ASEAN

85.5%

Total water withdrawals

Ecosystem services
from wetlands

FOOD SECURITY





Ecosystem services from wetlands

FOOD SECURITY

Ba Be Lake

Viet Nam

Ethnic groups rely on the lake for **fishing** and **farming**.





Ecosystem services from wetlands ENERGY & ELECTRICITY

Lake Lanao

Philippines

1 of 15 ancient lakes
in the world

70% Electricity generated
for domestic use

Proclaimed as a watershed reserve





Ecosystem services from wetlands ENERGY & ELECTRICITY

Inlay Lake

Myanmar

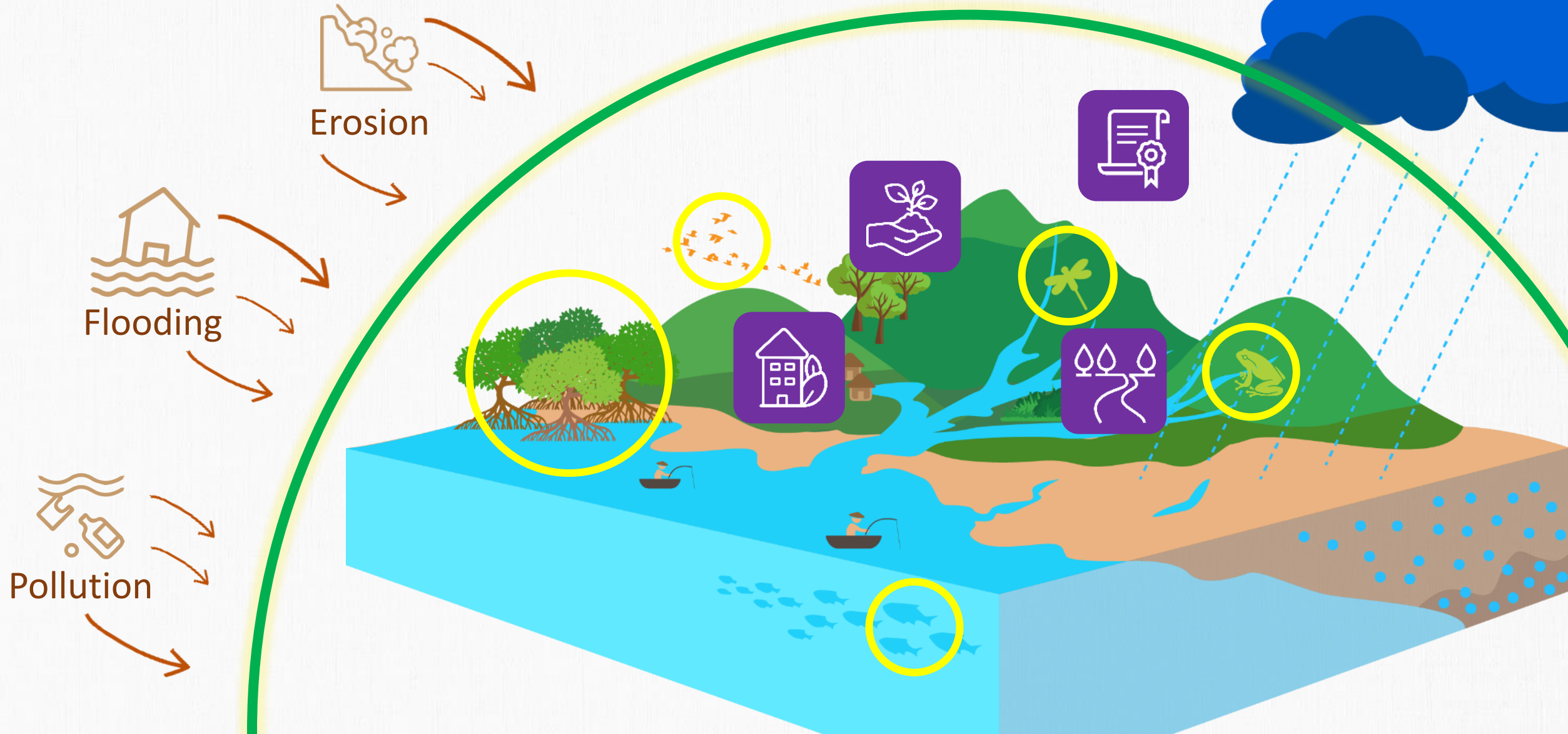
- Floating gardens
- Watershed
- Water source for electricity and domestic use



The resources that we get from wetlands may be depleted.



Protection of Wetlands





UNITED NATIONS DECADE ON
**ECOSYSTEM
RESTORATION**
2021-2030

#GenerationRestoration





Efforts from the
ASEAN Member States

Sustainable agriculture and cultural management practices Thailand

- Cropping calendar shift
- Integrated crop management



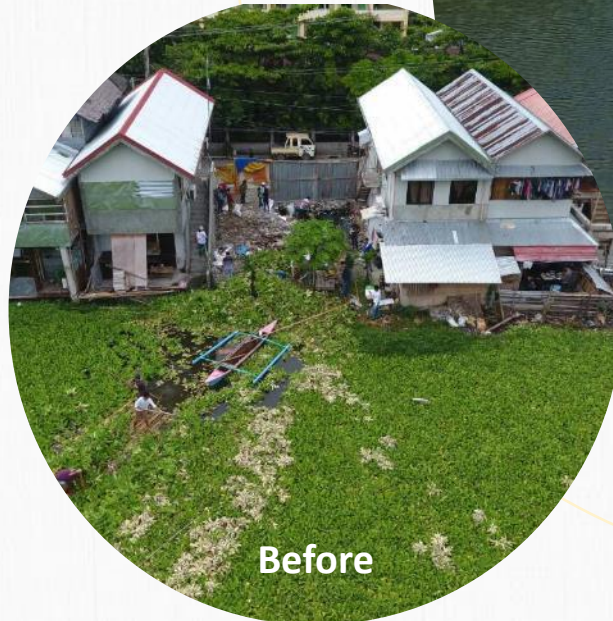
Photo from the ACB's Mainstreaming agriculture workshop (Field Visit to the Royal-initiated Wat Mongkol Chaipattana Area Development Project)



Efforts from the
ASEAN Member States

Boracay Rehabilitation Philippines

Joint activity by the
government and
private sector





Patrolling at Meinmahla Kyun Wildlife Sanctuary, Myanmar



Ba Be Honey produced at Ba Be National Park, Viet Nam



Training
Needs
Assessment,
Viet Nam

 **ASEAN CENTRE
FOR BIODIVERSITY**



Efforts at the Regional Level



Experiential Learning Programme
for Park Managers



Efforts at the
Regional Level

ASEAN Flyway Network



Second ASEAN Flyway Network Meeting and Field Visit (2018)



Efforts at the
Regional Level

ASEAN Flyway Network



Waterbird Census and
Wetland Assessments at
Naujan Lake National
Park, the fifth largest lake
in the Philippines with an
approximate area of about
8,098 hectares and a
designated Ramsar site
and Flyway Site Network.

Photos by Naujan Lake National Park







webinar

ASEAN Heritage Parks and COVID-19 Pandemic: Impacts, Responses, and Recovery

11 September 2020, 14:30 (GMT+7) / 15:30 (GMT+8)



webinar

Biodiversity and Preventing Future Pandemics

20 May 2020 | 10:00 A.M. – 11:30 A.M. (GMT+8)

Setting the tone: zoonoses and biodiversity conservation in the ASEAN region

COVID-19 situation in ASEAN


Health and Biodiversity in the Post-2020 Global Biodiversity Framework and developments

Highlights of the ASEAN Scoping Study on Interlinkages of Health and Biodiversity

Updates on ASEAN response to wildlife management to curb zoonoses



H.E. Kung Phook
Deputy Secretary-General of ASEAN
for ASEAN Socio-Cultural Community



Dr. Theresa Mundita S. Lim
Executive Director of the
ASEAN Centre for Biodiversity



Prof. Zakri Hamid
Founding Chair of IPBES and
ASEAN Biodiversity Hero-Malaysia



Drg. Oscar Primadi, MPH
Secretary General
Ministry of Health, Indonesia
Chair of Senior Officials Meeting on
Health and Development (SOM/HD)



Dr. Unnikrishnan Payyappallimana
International Institute for Global Health
of the United Nations University



Ms. Antoinette Taus
Moderator
UN Environment Programme's National Goodwill
Ambassador for the Philippines

Catch us live on the ACB's Facebook account
facebook.com/ASEANBiodiversity

#BiodiversityDay



- Articulate ASEAN recovery strategy from COVID-19
- Guide ASEAN sectors to assess, realign, or expedite work and priorities
- Provide a reference and set priorities for ASEAN cross-pillar coordination and contribution from broader stakeholders
- Outline ASEAN recovery strategy for engagement with partners and external stakeholders
- Contribute to ASEAN Community Vision 2025 and the strengthening of future resilience



- Focused
- Balanced
- Impactful
- Pragmatic
- Inclusive
- Measurable

- Whole-of-ASEAN-community approach
- Clarity in directions
- Synergy and complementary with national response
- Agile and flexible implementation
- Follow a 3Rs phased approach

Source: ASEAN Secretariat





Hand-washing is our first line of defense against the spread of viruses.

Addressing the water issues in the region is pivotal.

Water ecosystems and wetlands.
Biodiversity systems are interlinked.

