

# Group 1



1. Synthesis paper (opinion or perspective paper) by all the APBON members  
All the outputs of this workshop will be included
  - Capacity building
  - Why are data not shared and available?
2. APBON & APMBON surveys of biodiversity data and monitoring
  - New survey will be conducted this year => submitted to special feature (Ecol. Res)
  - All the outputs of this workshop will be included
3. EBVs/EOVs: Current status and gap analyses to specify priority for future research in each country/region and each ecosystem type
  - Using Matrices of indicators/EBVs by BIP, EuropaBON, etc. to discuss whether we need to establish AP version of EBV list or not
  - Critiques for EBVs
4. Data Gap analyses: current available data
  - Lessons learned by best practices
  - Advancing EBVs to bridge data gaps
  - How to manage data and how to translate and deliver them to stakeholders / decision-makers

# Group 1

5. Promotion of Citizen science and transdisciplinary research (CoGleaners project by Venus/)
  - Integration to policy management
6. New technologies: eDNA, remote sensing, smartphone mappings
7. Assessment of previous NBSAP of each country.
  - What we learnt from previous NBSAPS
  - Comparisons and new recommendation to include KMGBF indicators (may need to invite social and policy scientists)
8. Feasibility of EBVs/indicators: Data availability, Technological requirement. Methodology support

## Brainstorming

- Dark biodiversity --- estimation of unknown or undescribed species, understudied taxa, cryptic taxa, cryptic species, OUT

## Ways of Species identification

### Cause of

- no activity to explore the new species
- taxonomy; taking long term, intermediate morph among species cause the cryptic species
- genetic information – eDNA, OUT still depending on database

- Underestimate of genetic diversity
  - Functional diversity based on the traits data (beta diversity)– directory influence ES – fishery
  - NTFD give up measure the genetic diversity, close species

- Sterilization: Indicator and EBVs
  - too many ways to calculate the indicators not for standardization, process to calculation
  - measure how different means can lead to different results for EBVs and dictators
  - suggest using as much as possible hard-to-get data when necessary (e.g. genetic data)
- Suggestion how to utilize EBVs to NBSAP in AP region
  - still many countries in AP region are under discussion for new NBSAP
  - develop APBON indicators modeled on Europa BON indicators for NBSAP development
- Data gaps and availability
- Policy-brief, Policy-oriented paper
- Connectivity of marine and terrestrial ecosystems, Integrated analysis whole ecosystems – missing point of EBVs – biogeophysical process; nutrient, pollution (microplastics)

# Group 3



EBVs for AP region and countries – what do we have, what we don't have --  
standardization, methodologies, networks

Policy papers – opening data - country and regional survey of data – targeting  
governments and academia, many stakeholders. Baseline data for assessments.

Policy brief – recommendation for biodiversity data sharing, needs of national  
supports

Review paper – supersite concept for EBVs by combining in-situ observations,  
satellite obs, modeling. Network of networks

Clarifying gaps and challenges in data sharing, opening, considering the linguistic  
diversity – how AP community challenge?

Paper - What is missing in the EBV concept regarding the natural and societal  
characteristics of AP region?

What is missing in the EBV concept regarding the natural and societal  
characteristics of AP region

Expert database of APBON (list of experts, list of papers, ...)

# Group 3



Opening data services – what are the barriers, what are the challenges

Good quality paper, timely manner, securing data → publications, data and information portals (information infrastructure)

Summary for stakeholders (brief notes, regular papers, review papers relevant to decision making)

Data, papers, knowledge on Biodiversity trends under climate change <- temporal long-term data – sub-national, national, regional scale

Data and knowledge (papers) for (assessing) ecosystem restoration

Biodiversity and forest carbon sequestration, phenology (leaves, flowers, trees, herbs, bamboo) along latitudinal gradients – baseline knowledge for future monitoring and assessment

Mekong River basin – River water flow (dams, climate change, extreme events) impacts on wild species of birds through their foods across Thailand, Cambodia, and Laos.

Urbanizations and biodiversity – invasive species, habitat loss, moving pathogens

One health – EBVs for zoonotic

# Group 4



- Improving essential variable by Short communication
- **Perspective paper** of whole APBON activities
  - how to bridge gaps between science and policy including capacity building. Update/follow up of 2021 paper
  - How APBON can contribute to CBD-COP/Blue carbon and Green economy
- Diagram framework effectively communicate
  - How our data were used following Yayoi's Diagram Fig.1
  - GAP: How to approach local, Not enough communication with private sector
- **Policy brief** and **press release**/ Technical Brief
  - in local languages needed
  - Infographic way of presentation including application of AI
  - Picture also impressive
- Collect the **case study** /success story/ information that "How private sector can involve conservation of biodiversity"  
CSR of each countries to combined network