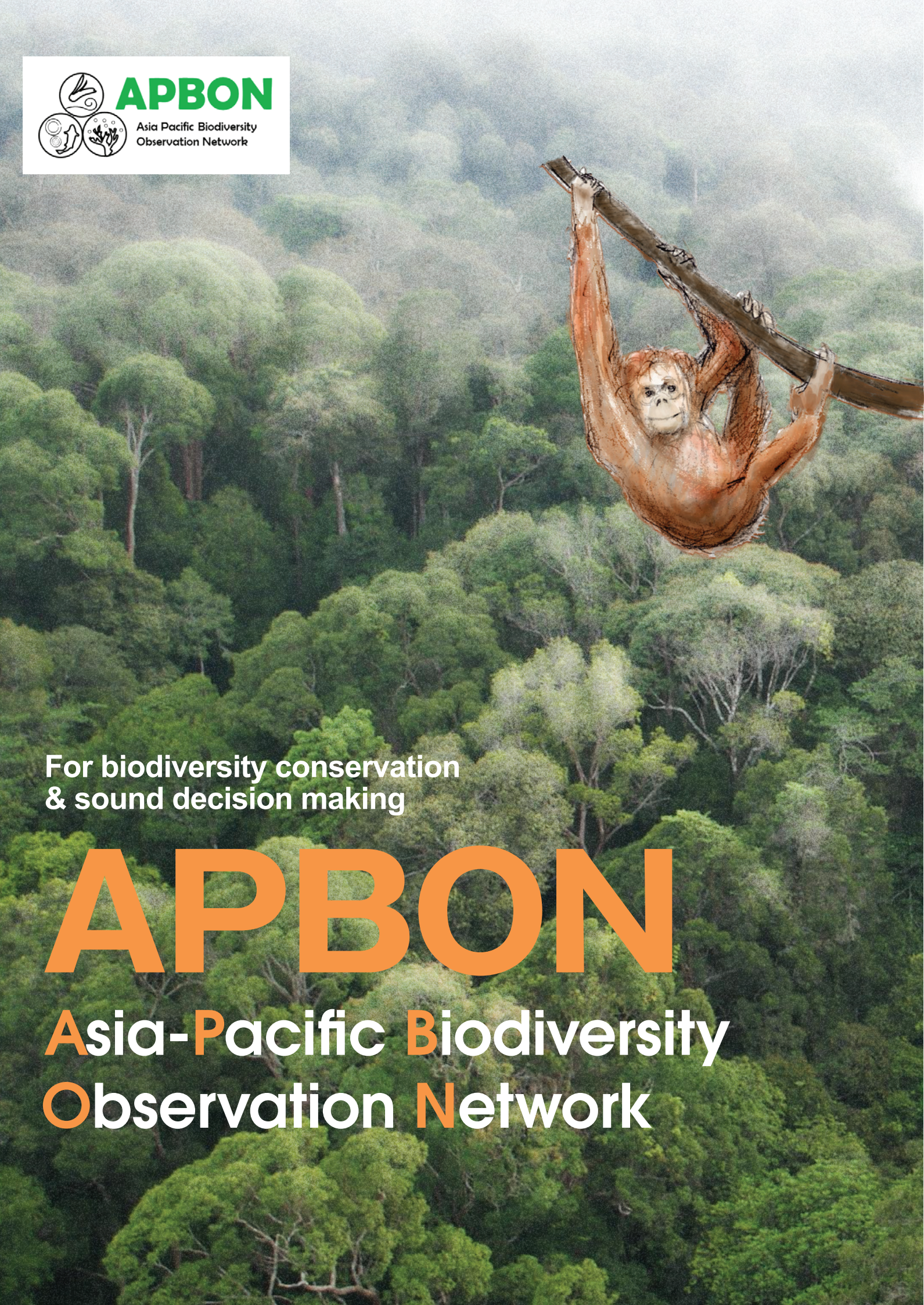
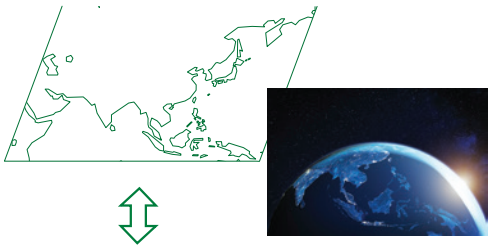

APBON
Asia Pacific Biodiversity
Observation Network
For biodiversity conservation
& sound decision making
APBON
Asia-Pacific Biodiversity
Observation Network

Biodiversity observation networks in the Asia-Pacific region

The Asia-Pacific Biodiversity Observation Network (APBON) is a network of institutions and research groups in the AP region. APBON contributes to and utilizes a knowledge resource base for decision making and policy making for the conservation of biodiversity and ecosystems. APBON was launched in 2009, in response to the establishment of the Biodiversity Observation Network under the Group on Earth Observations in 2008. APBON is closely collaborating with Asia-Oceania GEO.

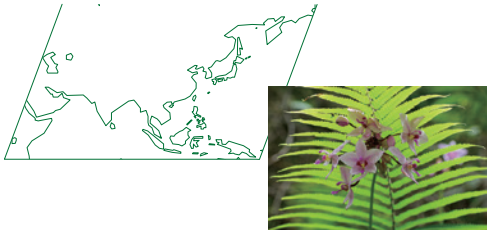
Asia-Pacific Marine BON (AP-MBON) furthers the development of marine biodiversity science in the Asia-Pacific region, as a sub-group of the MBON and Asia-Pacific BON networks of GEO BON.

APBON's approaches for biodiversity monitoring involve three levels: remote sensing, ecological process research, and species/genetic research. APBON tries to link the outcomes of each level of observation with an aim to contribute to policy making for the conservation of biodiversity.



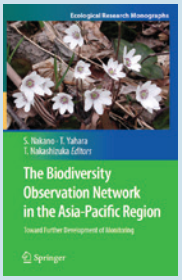
Satellite remote sensing
- Ecosystem and land-use types
- Vegetation structure
- Temporal changes in the ecosystem

Research and modeling of ecological processes
- Primary production (carbon flux and cycling)
- Ecohydrology and nutrient cycling
- Ecosystem services



Species and genetic level research
- Plant species distribution
- Wildlife habitat assessment
- Biological interactions

APBON's Key Publications

1


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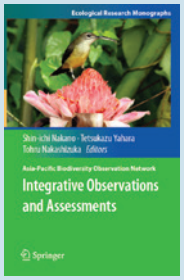

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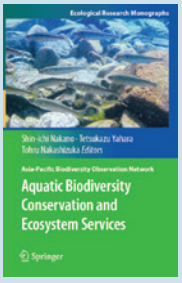


4

APBON books

1. The Biodiversity Observation Network in the Asia-Pacific Region: Toward Further Development of Monitoring. (eds.) S. Nakano *et al.* (2012), *Ecological Research Monographs*, Springer
2. Asia-Pacific Biodiversity Observation Network: Integrative Observations and Assessments. (eds.) S. Nakano *et al.* (2014), *Ecological Research Monographs*, Springer
3. Asia-Pacific Biodiversity Observation Network: Aquatic Biodiversity Conservation and Ecosystem Services. (eds.) S. Nakano *et al.* (2016) *Ecological Research Monographs*, Springer

APBON Strategy Paper

4. The Asia-Pacific Biodiversity Observation Network: 10-year achievements and new strategies to 2030. Takeuchi *et al.* (2021). *Ecological Research* 36: 232-257 https://doi.org/10.1111/1440-1703.12212

New strategies for 2030

Biodiversity research and monitoring | **Interlinking of networks and communities** | **Capacity building**

APBON fosters broader collaboration and engagement at regional and global scales through multidisciplinary approach to answer the national, regional, and global needs.

2009

Mission:
- Fostering networking between institutions and research groups
- Promoting collaborative projects and sharing of information
- Disseminating scientific knowledge for decision makers to aid the conservation of biodiversity and ecosystems

Achievements:
- Contribution to IPBES regional assessment
- Data sharing
- Engagement of scientists with national and regional BONs through meetings and projects

2019
2020

CBD COP15

New mission:
- Promoting interdisciplinary research and problem-solving approaches to fill gaps in observation and knowledge
- Promoting data sharing and data accessibility among observation networks through networking
- Delivering accrued information and knowledge to stakeholders and global platforms

Key activities:
- Biodiversity research and monitoring: promoting national BONs, improving knowledge using cutting-edge technologies
- Interlinking of networks: facilitating both science- and policy-relevant societies
- Capacity building: conducting workshops on monitoring skill development for students and professionals associated with NGOs

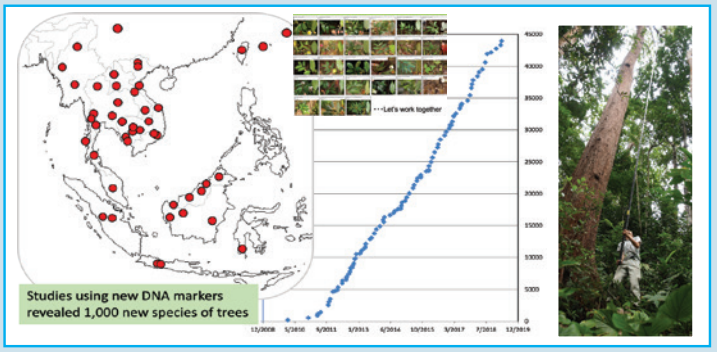
SUSTAINABLE DEVELOPMENT GOALS

2030

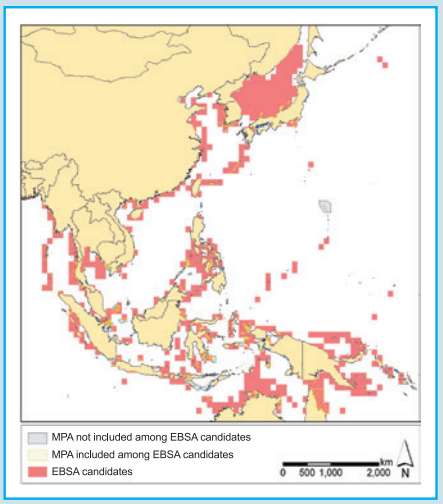
For more details, see:
APBON Strategy Paper
The Asia-Pacific Biodiversity Observation Network: 10-year achievements and new strategies to 2030.
Takeuchi *et al.* (2021). *Ecological Research* 36: 232-257 https://doi.org/10.1111/1440-1703.12212

Showcases of biodiversity observations and assessments by APBON

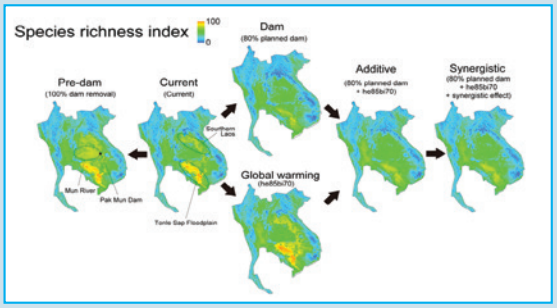
Exploring plant species diversity (T. Yahara *et al.*)



Mapping EBSA (T. Yamakita *et al.*)



Assessing impacts of dams and climate change on fish diversity (Y. Kano *et al.*)



Tropical forests in Southeast Asia are hotspots of biodiversity and home to several undiscovered plant species. (T. Yahara's group). Coastal and marine ecosystems with high biodiversity (Ecologically Biologically Significant Areas: EBSA) need to be identified for protection (Yamakita *et al.* 2017, *Marine Biology*). Freshwater ecosystem and fish diversity are susceptible to landuse change and climate change (Kano *et al.* 2016, *PLOS-ONE*).

Development of APBON

2008	Apr.	GEO BON Launch Meeting, Potsdam
2010	Feb.	GEO BON Implementation Plan Meeting, Asilomar, California
	Mar.	4th GEOSS-AP Symposium, Bali
	Oct.	APBON side event, CBD COP10, Nagoya
2012	Apr.	5th GEOSS-AP Symposium, Tokyo
	Sep.	APBON side event, WCC, Jeju
	Oct.	APBON side event, CBD COP11, Hyderabad
2013	Feb.	6th GEOSS-AP Symposium, Ahmedabad
2014	May.	7th GEOSS-AP Symposium, Tokyo
	Oct.	3rd APBON side event, CBD COP12, PyeongChang
2015	Sep.	8th GEOSS-AP Symposium, Beijing
2017	Jan.	9th GEOSS-AP Symposium, Tokyo
	Sep.	10th GEOSS-AP Symposium, Hanoi
2018	Oct.	11th GEOSS-AP Symposium, Kyoto
2019	Nov.	12th AOGEO Symposium 2019, Canberra
2021	Mar.	13th AOGEO Symposium, Online
	Nov.	14th AOGEO Symposium, Online

2009	Jul.	1st APBON Workshop, Nagoya
	Dec.	2nd APBON Workshop, Tokyo
2010	Mar.	3rd APBON Workshop, Nagoya
	Oct.	1st APBON Steering Committee, Nagoya
2011	Dec.	4th APBON Workshop & Science Symposium, Tokyo
2012	Sep.	2nd APBON Steering Committee, Jeju
2013	Nov.	5th APBON Workshop, Los Banos
2014	Oct.	6th APBON Workshop, Incheon
2016	Feb.	7th APBON Workshop, Bangkok
	Sep.	8th APBON Workshop, Taipei
2018	Feb.	9th APBON Workshop, Bangkok
	Jul.	10th APBON Workshop, Kuching
2019	Jun.	11th APBON Workshop, Kuala Lumpur
2021	Jan.	12th APBON Workshop, Online.
	Oct.	13th APBON Workshop, Online.

* APBON Web Seminars (10 times) were held online in 2020 and 2021.
For details of these meetings, please visit our website.

APBON

Management Committee

3 co-chairs
- Hiroyuki Muraoka, Japan
- Yongyut Trisurat, Thailand
- Runi Sylvester Pungga, Malaysia

13 board members
From Cambodia, China, Japan, Indonesia, Nepal, ASEAN, ICIMOD

Secretariat

Biodiversity Center of Japan
Ministry of the Environment, Japan

Working Groups

Terrestrial | Marine | Freshwater

AP MBON | Secretariat JAMSTEC

National BONs and Institutes

JBON — National Institute for Environmental Studies, Japan
KBON — Ministry of Environment, National Institute of Biological Resources
SinoBON — Chinese Academy of Sciences
ChinaBON — Nanjing Institute of Environmental Sciences, China
ASEAN Centre for Biodiversity
NepalBON

Collaborating Partners

AOGEO
GEO BON
ILTER-EAP
AsiaFlux
KBA

As of January 2022

APBON website
http://www.esabii.biodic.go.jp/ap-bon/index.html

AP-MBON website
https://members.geobon.org/pages/ap-mbon.php

Secretariat of APBON

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