Country Report on
The Seventh GEOSS Asia-Pacific Symposium:

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GEOSS-AP in Indonesia

• Indonesia has participated in the Global Earth Observation System of Systems Asia-Pacific (GEOSS-AP) activities to address water and land-related observation issues.

• Data sharing and access; knowledge transfer and experience exchange; and user requirements for decision making have become the prioritiy targets in each Working Group (WG) activity.

• This report presents a brief progress on Asia-Pacific Biodiversity Observation Network (AP-BON) WG
Indo-Australian Archipelago ≈ Malay Archipelago
≈ Malesiana ≈ South East Asia

Rich in ecosystem type, species numbers and endemism
Ecosystem Diversity in Indonesia

Altitudinal distribution and profile of vegetation types LORENTZ NATIONAL PARK (World Heritage Site) (After Kartawinata & Widjaja 1987)
Forest Cover Loss and Gain (2000-2009)

Global Forest Observation Initiative (GFOI) towards long-term carbon management
Ecoregion Sumatra Island

![Graph and Maps]

Doc: Country report Indonesia
Forest cover loss, 2000-2012:
(Illegal logging, mining, plantation, infrastructure, agriculture, forest fire) (Dok:
Asia-Pacific Biodiversity Observation Network (AP-BON) in Indonesia

Activities:

– Collaborative Research between Kyushu University and MoE Japan with Indonesian Institute of Sciences (LIPI), Andalas University, Hasanudin University and Forestry Department (2010-2016).

– Focus: on terrestrial plant species monitoring at different ecosystem types along gradient altitudinal

– Areas: in some protected forests in West Java; Mt Gede-Pangrango NP; Bantimurung-Bulusaraung NP South Sulawesi, Limau manis and Pinang-Pinang West Sumatera; Mandor West Kalimantan

Progress result:

– Capacity building; introduce new methods and approach

– Plants specimen collections for National References Collections

– Recommendation for conservation management related to unique ecosystem services
Study sites (500 m² at altitudinal gradient)

- 2010-2014
- 2014-2016
Asia-Pacific Biodiversity Observation Network (AP-BON)

Plant Species Richness/500m² vs Altitude in some countries in Asia (Yahara et al., 2012)
Asia-Pacific Biodiversity Observation Network (AP-BON)

Curve species-area: Species richness at forest ecosystem (Kartawinata, 2005)
Spatial distribution of plant species in 1 ha permanent plot in Halimun-Salak NP, West Java (133 species, 3800 numbers of plant collection, 2012-2014)

Unpublished data: Doc. Darnaedi
Tree distribution within 1 ha plot

Unpublished data: Doc. Darnaedi
Species diversity based on plot size and altitudinal gradients (Kalimantan is the most diverse, followed by Sumatera and Java) and total species collection at 1 ha plot (Java)
Conclusion

• Forest cover loss, land degradation, species extinction and genetic loss are still going on in most islands

• No Biodiversity Observation Network has been established in Indonesia, due to the limitation of funding, expertise, technology, and coordination

• Botanical exploration and establishment of permanent monitoring plots at different ecosystem types is done very slowly

• Mainstreaming biodiversity and ecosystem function and services to decision making has been identified as important actions

• *Trans-disciplinary approach and international research collaborations is needed to solve environmental issues and to support SDGs*
Thank you
Forest cover loss, 2000-2012:
(Illegal logging, mining, plantation, infrastructure, agriculture, forest fire) (Dok:
Mr. Scholes presented the report and conclusions of the Expert Workshop on enhancing biodiversity data and observing systems in support of the implementation of the Strategic Plan for Biodiversity 2011 – 2020, held on 12 October 2013 in Montreal, Canada. The objective of the Workshop had been to identify ways to improve the collection and use of data and share Parties’ experiences in monitoring and reporting progress made in the implementation of national biodiversity strategies and action plans. It had also been intended to raise awareness of available tools, products and approaches, as well as organizations and networks, that could help improve biodiversity monitoring.

The Workshop, which had been organized by Group on Earth Observations-Biodiversity Observation Network (GEO-BON) on the invitation of the Secretariat of the Convention, had been attended by 80 participants from over 40 different countries and a wide range of organizations. It had emerged that, although data was available on many subjects, significant gaps remained in regard to key targets and areas.

Many countries had no biodiversity observation networks because they lacked capacity, funding and guidance. Patchy, project-based data, heterogeneity and incompatibility of terminology and methods, absence of information systems and human and technological capacities were common problems. However, many countries had made good and innovative progress on biodiversity observation networks, including through regional cooperation, the development of global databases, citizens science, earth observation and the use of essential biodiversity variables. In order to encourage public investment, a stronger case must be made for using biodiversity monitoring data to inform decision-making.

In order to support the establishment and maintenance of national biodiversity observation systems, it had been suggested that the Group on Earth Observations should provide regionally-tailored start-up kits (BON-in-a-Box) and strategies to integrate remotely-sensed and in situ data. It could also help provide economic arguments for biodiversity and biodiversity observation systems, advocacy to funders, and capacity building on terminology, methods and standards. The Group’s work plan was already largely in line with those priorities and further adjustments would be made in follow-up to the Workshop.

The Group and its partners were keen to engage further, including by identifying ways to meet countries’ needs for specific forms of assistance.