

The 10<sup>th</sup> GEOS-AP Symposium

**WG2: ASIA-PACIFIC BIODIVERSITY OBSERVATION NETWORK**

19 September 2017

Vietnam Academy of Science and Technology

Hanoi, Vietnam

# **Updates of Global, Regional and National BONs**

**Eun-Shik KIM and Chan-Ho PARK**

**Kookmin University and National Institute of Biological Resources**

**Korea**

**With additional slides for GEO BON**

**contributed from**

**Laetitia M. Navarro, GEO BON Executive Secretary**

# GEO BON - Implementation Committee and Advisory Board Meetings-1

June 26<sup>th</sup> - 28<sup>th</sup>, 2017  
iDiv, Leipzig, Germany



# GEO BON - Implementation Committee and Advisory Board Meetings-2

- Working groups, BONs, and task force: activities, deliverables, and related timelines have been integrated in the GEO BON Implementation Plan for 2017-2020.
- The priority GEO BON deliverables in the short (2018) and medium (2020) term: those deliverables are organized around the three core objectives of GEO BON; 1) developing the Essential Biodiversity Variables (EBVs); 2) developing national, regional, and thematic BONs; and 3) supporting biodiversity assessments and policy.
- Endorsement: the thematic Freshwater BON
- Approval of the creation of a task force: Remote Sensing task force in support of EBVs.
- Chair election: Mike Gill and Henrique Pereira were elected as co-chairs of GEO BON for a 3-years term
- Approval of the Implementation Plan: approved by the participants



## Asia-Pacific Biodiversity Observation Network (APBON)

**Sheila Vergara  
Tetsukazu Yahara  
Eun-Shik Kim**

**Achievements and lessons  
learnt from APBON Activities:  
Toward developing a broader network  
of biodiversity and ecosystem observations**





# INTECOL 2017 Beijing Congress:

## Ecology and Civilization in a Changing World

20-25 August 2017

**Symposium No.T4-02:**  
**Biodiversity Monitoring**  
**for Global Conservation**  
**Targets**



# INTECOL 2017 Beijing Congress: 24 August 2017

**Symposium No.T4-02:**

***Biodiversity Monitoring for Global Conservation Targets***





## Presentation-1

- **Welcome speech by the Department of Nature and Ecology Conservation, Ministry of Environmental Protection of China**
- **Eun-Shik Kim: Welcome speech and introduction to AP BON**
- **Laetitia Navarro: Developing Biodiversity Monitoring and Building a Global Network of Biodiversity Observation Systems**
- **Eren Turak: Freshwater Biodiversity Observation Network**
- **Haigen Xu: China Biodiversity Observation Network: Progress and Achievements**
- **Carlos Zambrana-Torrel: The Global Virome Project: A Network of Viral-diversity Monitoring**
- **Takashina Nao: Developing Biological Survey Design for Systematically Obtaining Habitat Map**
- **Jiaqi Li: China Mammal Observation Network (China BON – Mammal)**
- **Sheng Li: The Species Richness, Community Structure, and 10-year Changes of Large Mammals in Southwestern China: Are We Looking towards a Brighter future?**
- **Cheng Li: The Relationship between Community Structure of Ground-dwelling Vertebrates and Habitat Types in the Wanglang Natural Reserve**
- **Xiaojia Zhu: China Bird Observation Network (China BON - Bird)**



## Presentation-2

- **Fei Duan: Promoting the Biodiversity Monitoring of Birds in China through the Camera-trapping Network: Status, Challenge and Outlook**
- **Yanqing Wu: China Amphibian Observation Network (China BON - Amphibian)**
- **Tian Zhao: Amphibian Species Contribute Similarly to Taxonomic and Phylogenetic Diversity**
- **Fangzhou Ma: China Butterfly Observation Network (China BON - Butterfly)**
- **Yves Basset: The Saturniidae of Barro Colorado Island, Panama: a model taxon for studying the long-term effects of climate change?**
- **Yun Cao: Design of Essential Biodiversity Variables based on Genetic Information: Progresses and Perspectives**
- **Mingchang Cao: Progress towards China's NBSAP**
- *Laetitia Navarro: Publishing open biodiversity data in ecology: standards and benefits*
- *Carlos Ant3nio Guerra: Finding the Essential: Improving Conservation Monitoring across Scales*
- *Jianping Jiang: Amphibian Monitoring in Mountains around Sichuan Basin in Southwestern China*
- *Zhaohui Li: The First Step for Butterfly Monitoring in China: Overview of Jiangsu Butterfly Monitoring Scheme (2010-2016) Progress*

GOBON

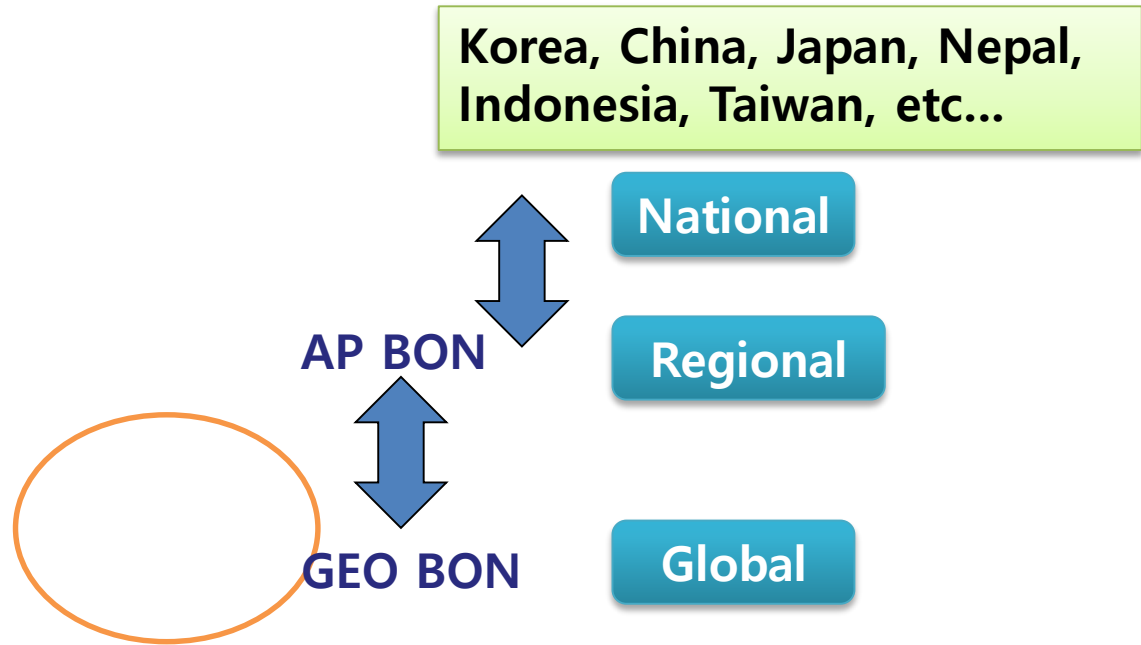
# Activities of K-BON with Civil Scientists

2017. 9. 18

Chan-Ho PARK, NIBR KOREA

# K-BON is...

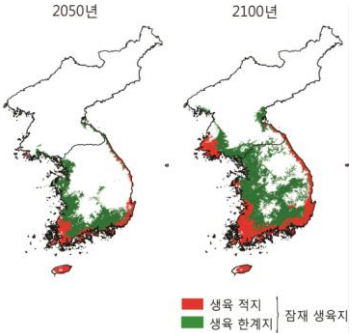
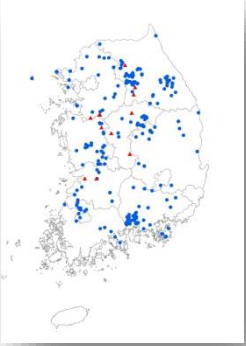
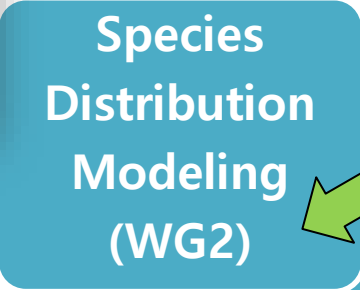
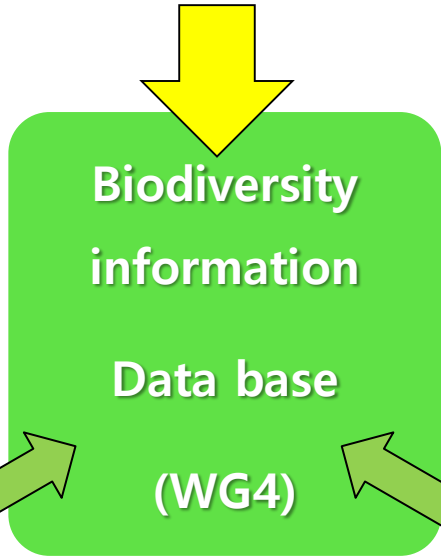
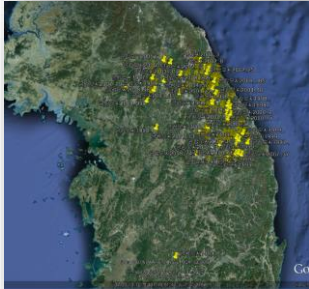
- National BON and member of AP-BON
- Collecting of biodiversity data with integrates citizen science
- Mobile platform management to improve the convenience of citizen participation
- Collaborate to GTI (Global Taxonomy Initiative) and ESABII



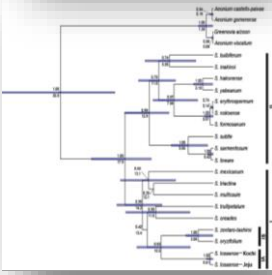


# Working group of K-BON

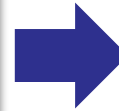
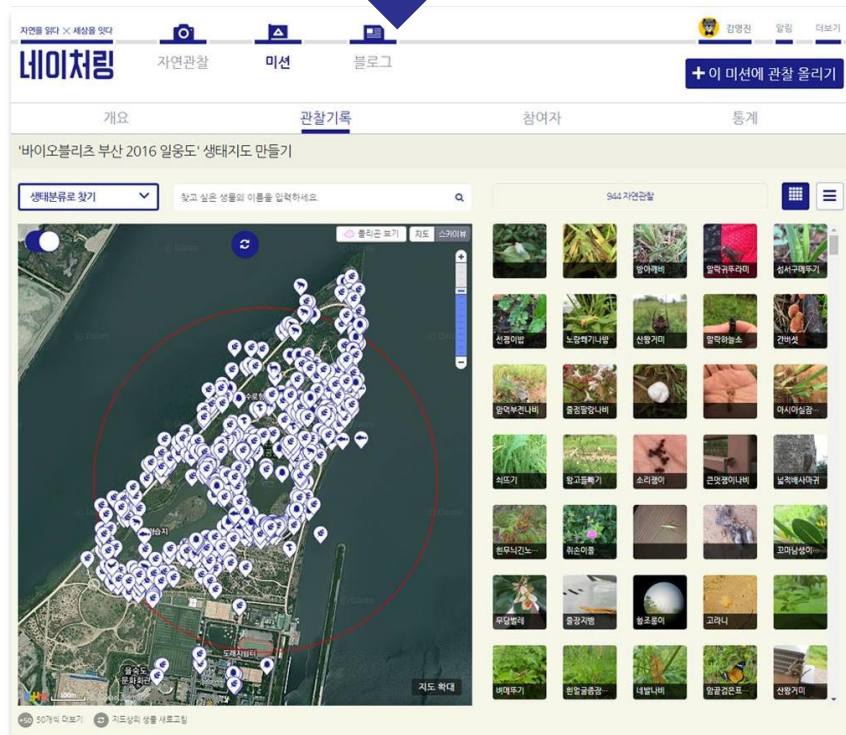
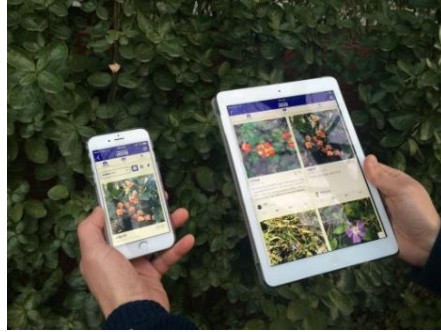
## Monitoring group with Civil Scientists (WG1)



Korea NBSAP, Plan of Invasive Alien Species, National Plan of Adaptation of Climate Change etc.

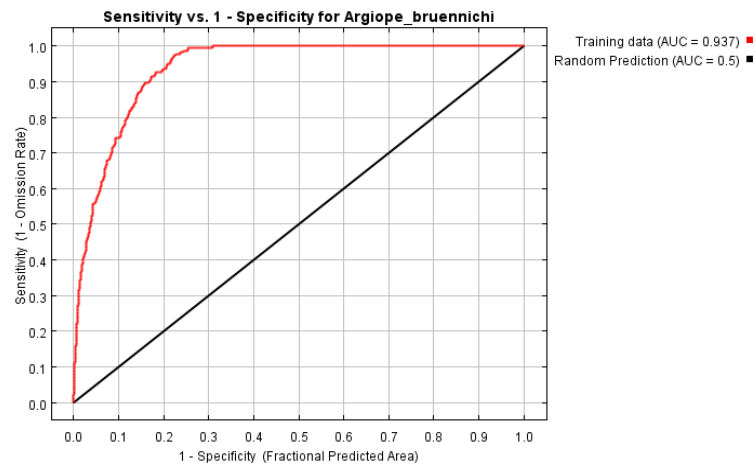
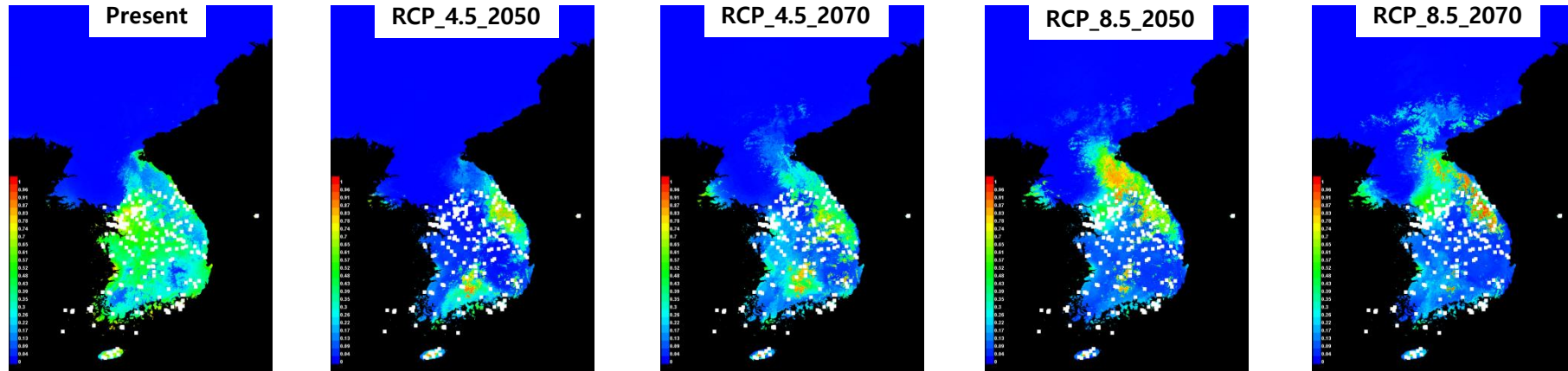


# WG1. Mobile platform management to improve the convenience of citizen participation





# WG 2&3 : Research from K-BON monitoring data



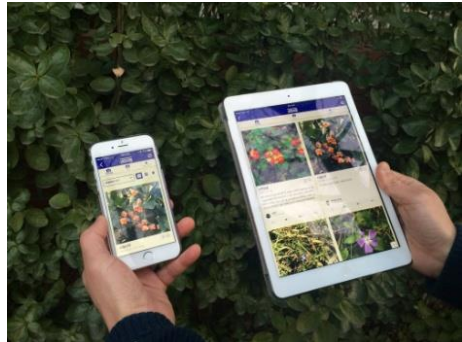
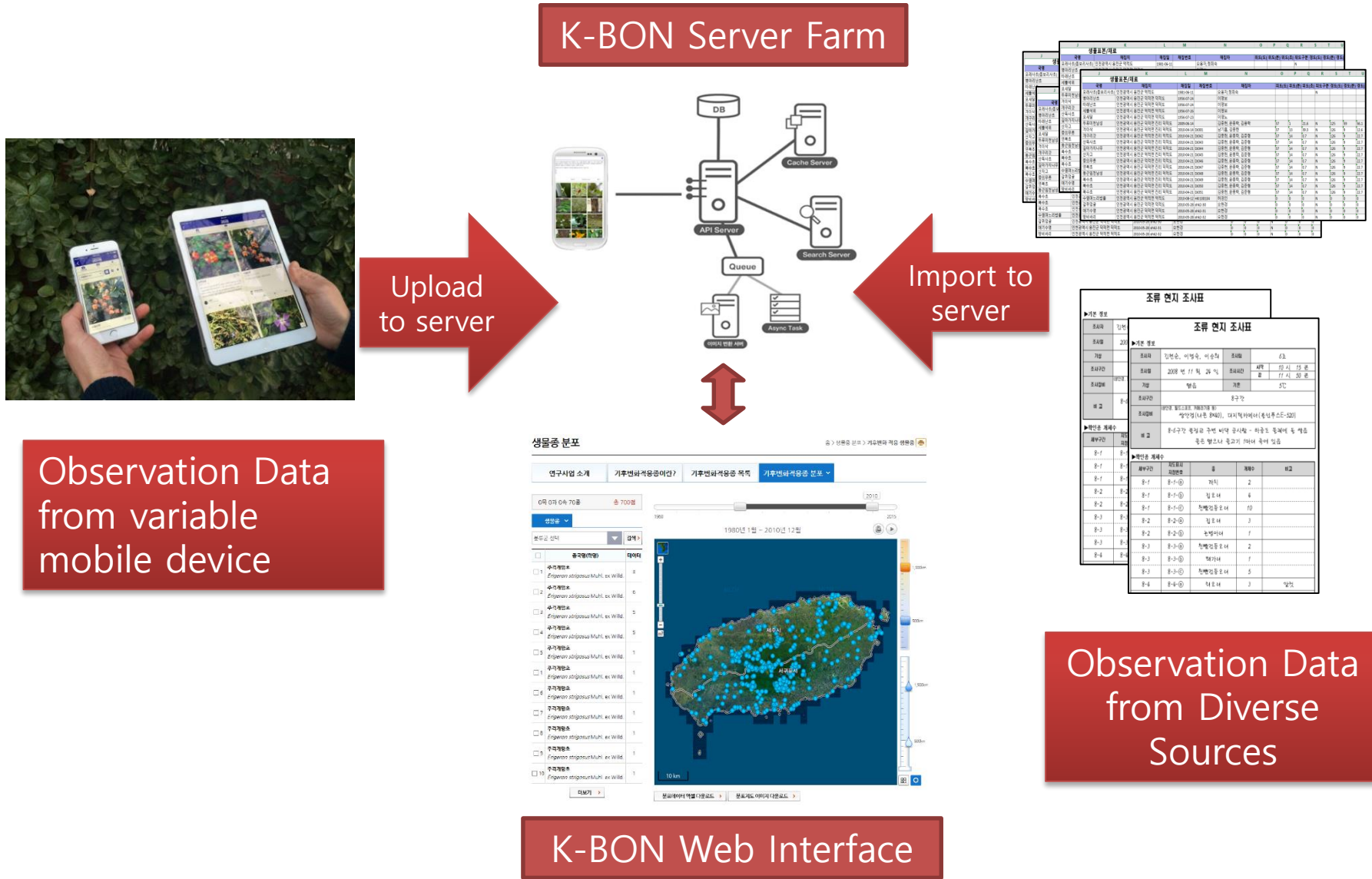
	Pre	RCP_4.5_2050	RCP_4.5_2070
Area (km <sup>2</sup> )	124,071	40,892	63,726
		RCP_8.5_2050	RCP_8.5_2070
		63,838	61,075



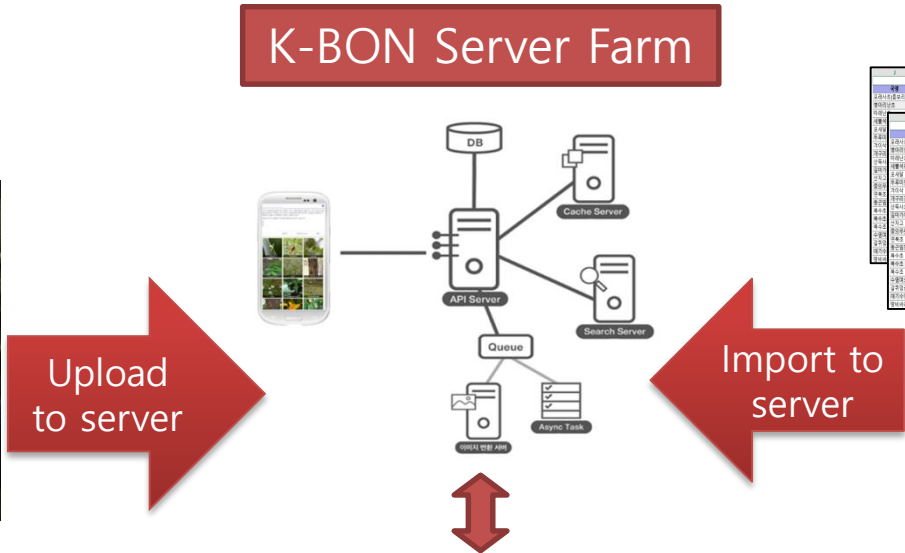
Banana spider  
*Argiope bruennichi* Scopoli 1772



# WG 4 : Organize to K-BON information System Structure



Observation Data from variable mobile device



생물종	관측일자	관측시간	관측장소	관측인	관측방법	관측구분	관측종류	관측상태	관측비고
...	...	...	...	...	...	...	...	...	...

구분	항목	내용
조사일	조사시간	조사장소
조사인	조사방법	조사구분
조사종류	조사상태	조사비고



K-BON Web Interface

Observation Data from Diverse Sources

## Start of K-BON Junior : The training of future scientists



## Capacity Building with civil scientists

### : Organize to BioBlitz







## Developing Biodiversity Monitoring and Building an Interoperable Network of Biodiversity Observation Systems



Laetitia M. Navarro

GEO BON Executive Secretary



**iDiv**

INTECOL, Beijing

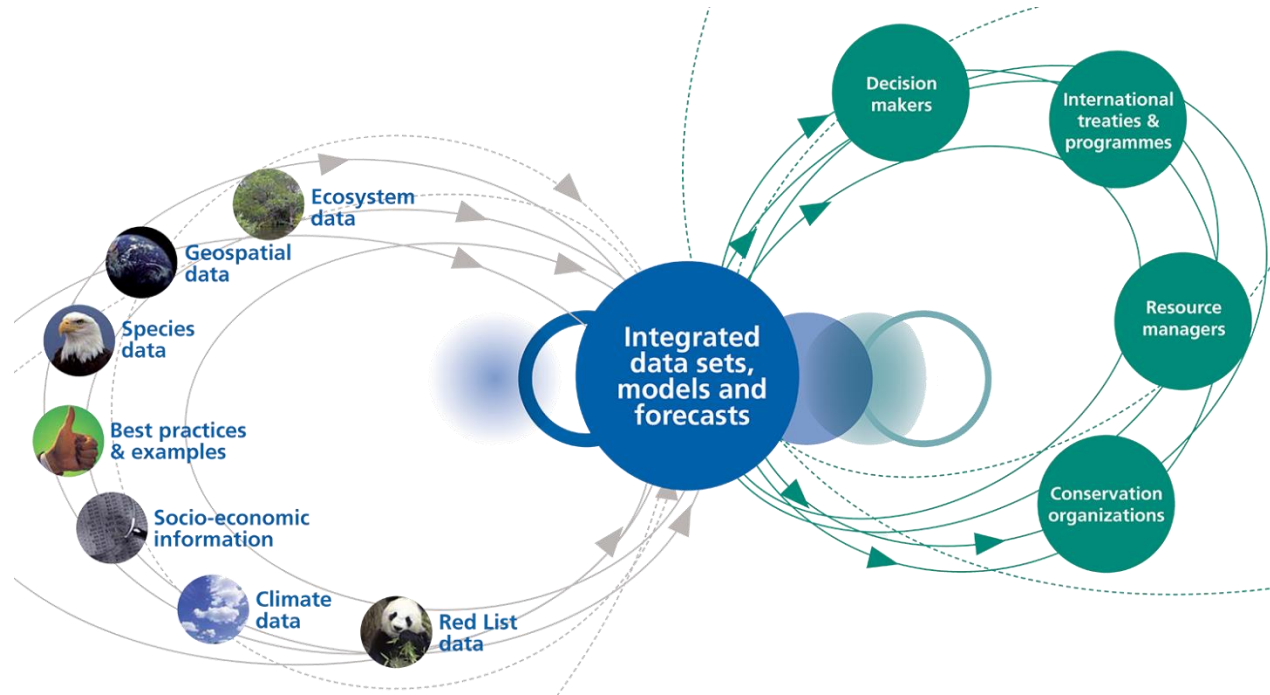
24.08.2017



## GEO BON in a nutshell

### Mission

Improve the **acquisition**, **coordination** and **delivery** of biodiversity observations and related services to users including decision makers and the scientific community.



### Vision

A **global biodiversity observation network** that contributes to effective **management policies** for the world's biodiversity and ecosystem services.

## Flagship of GEO – The Group on Earth Observations

A Global, Coordinated, Comprehensive and Sustained System of Observing Systems  
"Countries have borders, Earth Observations don't"

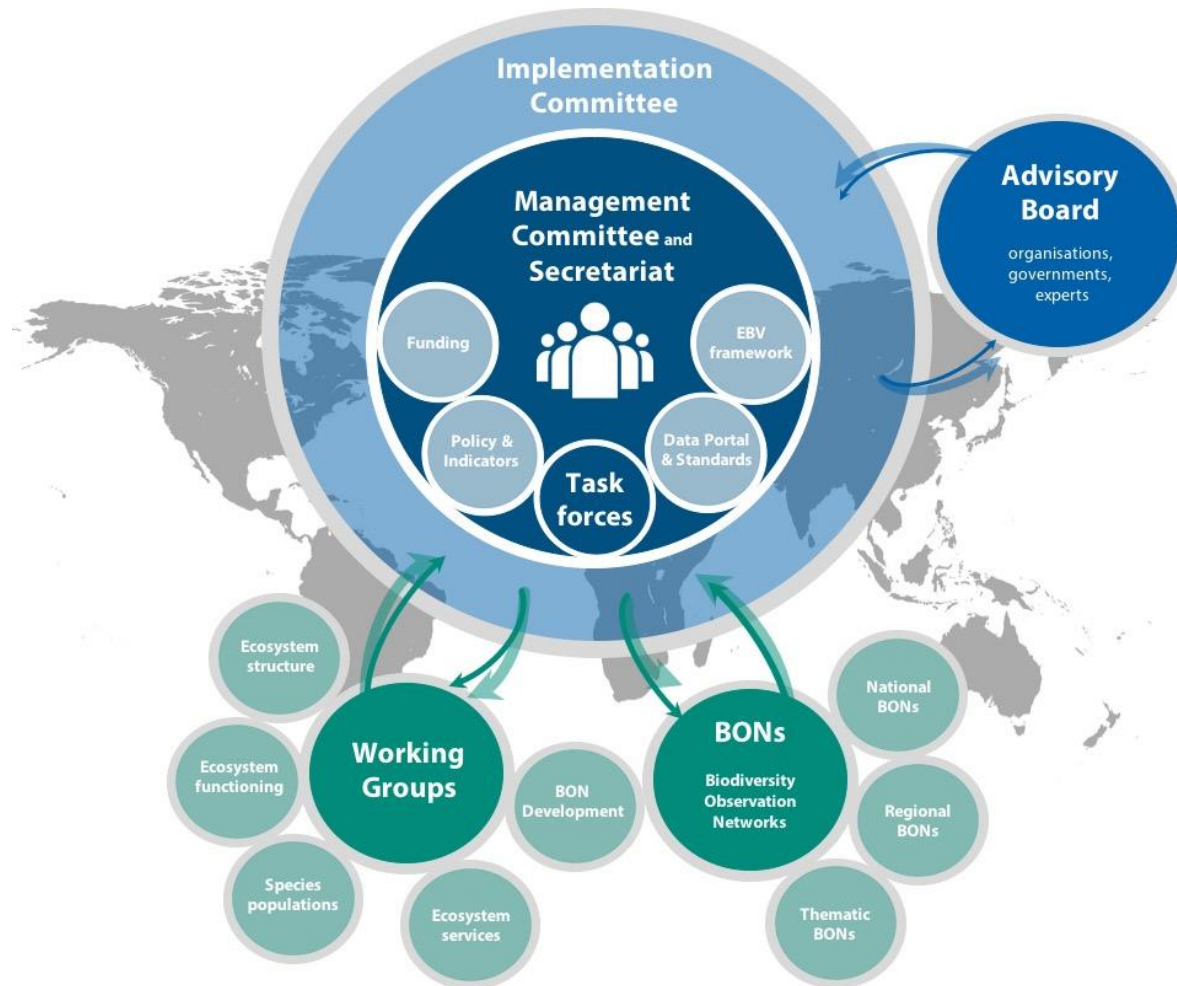


# A Global Partnership





## GEO BON governance and core focus

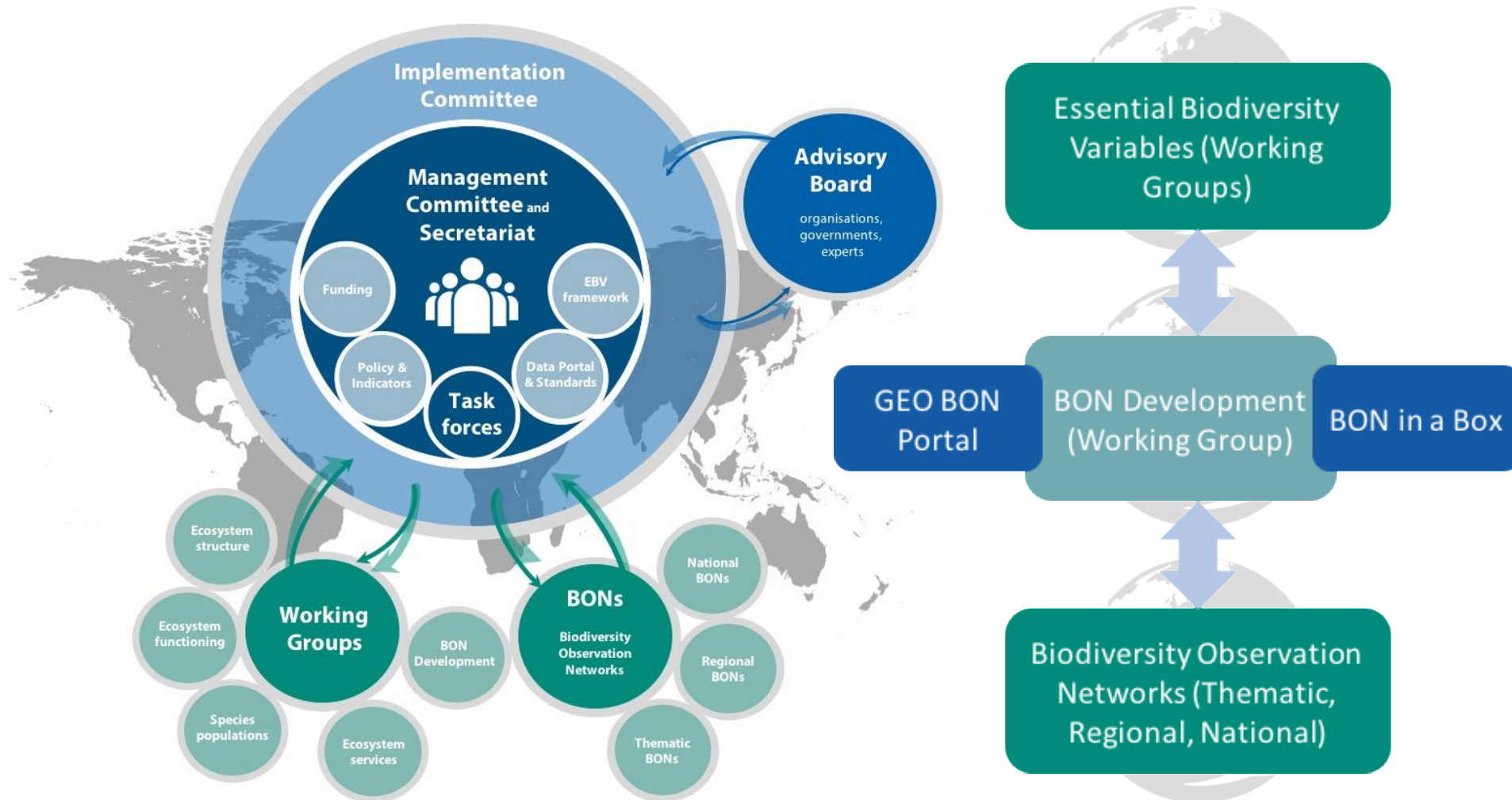


**Developing a standard and flexible framework for biodiversity observations**

**Supporting the development of Biodiversity Observation Networks**

**Producing policy relevant outputs**

## A Top Down and Bottom Up approach



**Thank you for your kind attention!**





Korea **B**iodiversity **O**bservation **N**etwork

**Thank You**