Summary Report

AP-BON-ESABII symposium "Biodiversity Information Management"

AP-BON-ESABII symposium "Biodiversity Information Management" was held as one of the side events of the 2nd ASEAN Conference on Biodiversity in Bangkok, Thailand as below:

Date: 17 February, 2016
Venue: Centara Grand & Bangkok Convention Centre 22nd floor, Lotus Suite 8
Participants: about 30 persons from ten countries

<Background and objectives>

The objectives of this symposium are to enhance awareness, understanding and appreciation of experts / practitioners on the efforts undertaken to collect, organize, and analyze biodiversity data at the global, regional, and national levels.

<Summary of the proceedings>

Chairman, Dr Sheila Vergara gave the opening speech, followed by presentations and discussion among the experts managing biodiversity information.

1. The GEO BON Network Facility
   Dr. Jorg Freyhof, GEO BON
・The ASEAN region is of immense value because of its rich and diverse biodiversity resources but also a hotspot of biodiversity loss. GEO BON is very strongly engaged in the ASEAN region as target for biodiversity conservation.
・GEO BON thrives to provide a global biodiversity observation network that contributes to effective management policies for the world's biodiversity and ecosystems. To fill the gaps, GEO BON supports the development of national monitoring systems through BON in a Box. It supports the establishment of regional biodiversity information platforms and systems. The GEO BON's activities develop Essential Biodiversity Variables (EBVs) that can measure changes of biodiversity through structured and measurable indicators.
・We encourage ASEAN Member States (AMS) to address data gap in the ASEAN region by getting involved in generating observations by taking advantage of the tools like BON in a Box and to form national BONs that are connected to national governments and CBD national focal points.

2. The Global Biodiversity Information Facility (GBIF) [Video Presentation]

Mr. Tim Hirsch, GBIF

・GBIF was founded with the aim of promoting and facilitating a free and open access to biodiversity data for use in research and policy. Through the platform (www.gbif.org) a considerable amount of data has been mobilized approximately 656 million separate species occurrence records covering 1.6 million species in some 15,594 datasets shared and published by nearly 800 institutions around the world. The uses and users of Biodiversity data are equally dispersed on various from scientific uses such as taxonomy, pharmacy, conservation, food security, land use planning, responses to climate change, etc.

・An important part of what is being developed recently at GBIF is to provide a more useful and practical way, in which data used in research and policy can be properly cited and attributed to those who collected the data and then to share this data using standard formats. This is important in providing the incentive and recognition in data sharing and publication effort.

・We have invited our partners in Asia to propose projects for use of Biodiversity Information Fund for Asia (BIFA) and the projects approved for 2016 include:

    a. Biodiversity informatics 'cookbook' and regional training

    b. Development of national biodiversity database system in Viet Nam

    c. Mobilizing biodiversity data from ASEAN Protected areas

    d. Strengthening GBIF Philippines

・Avail of the BIFA provided by GBIF to member countries to jumpstart information generation and sharing of biodiversity data in your country and the region.

3. Data Publication through the Integrated Publishing Toolkit (IPT)

Dr. Yu Huang Wang, TaiBIF

・Global Biodiversity Informatics Outlook (GBIO), that is a result of the Global Biodiversity Informatics Conference participated by various scientists in Copenhagen in July 2012, concluded that there is a big lack of data to support decision for biodiversity conservation. The conference further concluded that data need to be standardized, so these can be useful information for integration and analysis to support decision and policy for conservation.

・The Integrated Publication Toolkit (IPT) is an open source data publication platform developed by GBIF to enable data providers to publish and make their data available for analysis and integration. By using the IPT, data providers will be able to generate and publish biodiversity information that conforms to standard acceptable formats such as the Ecological Meta Data Language (EML) and Darwin Core terms and thus can be integrated for analysis of status and trends.

・Advantages of IPT:

    a. Facilitates publishing data papers

    b. Proper citation: provider is given due credit for the use of the data

・ The Biodiversity Information Fund for Asia (BIFA) was created from contribution to GBIF supplementary funds from MOEJ. Four projects will be implemented this year, two of which will be implemented in Southeast Asia.

4. FishBase Products and Tools
Dr. Christine Casal, FishBase

・ FishBase is a global Information System on finfishes that is freely available and support management of aquatic natural resources from both conservation and exploitation perspectives. Our major assets include contributions of over 2,230 expert collaborators worldwide through publications, references, databases and pictures. FishBase also offers different types of conservation tools designed for a wide range of users and stakeholders. People – 700,000 visits per month – are looking at in the database. Data on fishes in the ASEAN is a total of 7,779 fish species including 4,969 marine and 2,992 freshwater.

・ Products of FishBase:
  a. Fish identification tools,
  b. Species summaries,
  c. Interactive field guide tool for fish,
  d. Gap analysis as basis to do more research,
  e. Aqua maps to show the species richness in a particular area or distribution maps for the species, etc.

5. Ocean Biogeographic Information System (OBIS) [Video Presentation]
Mr. Ward Appeltans, OBIS

・ The OBIS consists of 46 million observations of 117,000 marine species, and 1,000 papers which have cited OBIS. OBIS has 500 data providers, they are all connected to about 120 OBIS nodes, which collect the data from the providers. One of these OBIS nodes is the ACB which is responsible for Southeast Asia or SEA-OBIS. Southeast Asia is very biodiversity rich, but the number of OBIS records in Southeast Asia is very poor, so there is definitely a huge gap. Its contribution to Future Earth, Essential Ocean Variables (EOVs), Global Ocean Observing System (GOOS) and GEO BON and defining essential variables in BON in a Box can determine and detect change in marine species diversity.

・ We have been trained scientists and data managers in the project office in Belgium and also trained people for data cleaning, formatting, publishing data, and providing tools for data access. These frameworks had been successful and it would be good if these could be repeated in your region.

6. Development of Field Guides for ASEAN Plant Biodiversity
Dr. Edwino Fernando, CFNR-UPLB

・Taxonomic information is essential for various stakeholders such as park managers, conservation workers and field biologists as tools for addressing critical issues of species conservation and management. Field guides are synthesis of information specific to a particular taxon, and can serve as a tool for stakeholders to establish taxonomic information on species managed. Field guides can be in various forms such as flash cards, picture keys, brochures, digital field guides, applications, etc. There is increasing demand on field guides as more plant species need to be identified for management and conservation purposes. Field guides are most often designed for plants as there is more available taxonomic information on flora than fauna.

・ACB in collaboration with MOEJ (ESABII Secretariat), and the Japan-ASEAN Integration Fund (JAIF) has initiated a Field Guide Series on ASEAN plant biodiversity in small book format. Development of field guides for more taxonomic groups is encouraged to enhance capacities of regional and national stakeholders to identify species in their respective management areas.

7. Progress and challenges of ESABII in South East Asia region

   Dr. Dedy Darnaedi, LIPI

・ESABII was established by in 2012 by 14 countries in the Asian region. The major activities of ESABII are to conduct regional taxonomy workshop on taxonomy, development of training manuals, CITES policies and identification of trade species. Southeast Asia is megadiverse region, but there is significant gap. We need to identify and understand these species, so taxonomic capacity building is continued to build the skills and understanding of biodiversity for management and conservation.

・ESABII Initiatives:

   a. ESABII taxonomic training; Training of Trainers (TOT), DNA analysis, morphology, ocular and field inspection, etc.

   b. Development of Information :

      i. Information on migratory birds

      ii. Threatened mammals database

      iii. Threatened vascular plants species database

・Capacity building in understanding biodiversity is crucial issue, so regional training workshops and ToT on taxonomy, para taxonomy and public awareness, need to be continued. Sharing experience and preparing simple book such as guide books, manuals, ID key need to be strengthened.

(Discussions)

Dr. Freyhof: How to monitor the success of these training courses?

Dr. Darnaedi: There is no mechanism to evaluate the training because some of participants are not real taxonomist r there are managers, university lecturers, officials, etc. Therefore, ESABII and ACB are required to have selection criteria of participants.

8. Asia-Pacific Biodiversity Observation Network: An Introduction from co-chairs

Dr. Eun-Shik Kim, Kookmin University

・AP-BON is a regional initiative spearheaded by MOEJ. The history of AP-BON starting from its conception in 2007 in connection with global to national BONs, CBD-COPs and IPBES. The network has had 6 meetings with the 7th meeting to be conducted on 19-20 Feb 2016. What we have done for the last ten years is to identify the gaps of the network.

・Activities:

    a. Publications of APBON Book

    b. Conceptual documents

    c. Establish a coordinated AP network that gathers and shares information on biodiversity and ecosystem services

    d. Coordinated network established

    e. Network of programs

    f. Next steps – stronger and collaborative mechanism to support these activities

    g. Some potential products were discussed in 5th meeting: regional red list, key biodiversity areas and publishing data papers

・Turning Points:

    a. IPBES assessments have started

    b. A new GEO strategic plan 2016 – 2025 is being implemented

    c. A core project S9 sponsored by MOEJ will end in March 2016

9. The ABCDNet

Dr. Maofang Luo, Chinese Academy of Sciences (CAS)

・There is still a wide gap in the level of data sharing in Asia and other biologically rich regions. In this context, ABCDNet was established in 2013 by the Biodiversity committee of Chinese Academy of Sciences to build a regional cooperation platform for integrating and sharing biodiversity information in Asia.

・ABCDNet activities:

    a. Workshop on biodiversity data sharing environment in Asia to make the road map of the network

    b. Information systems development:

      i. Catalogue of China

     ii. Asian Bird records

    c. Major ongoing projects include the Asia Species Database and Asia Red List Database (15 Asian countries, 58,000 records).

    d. Network of resources: 400 Asia network are available online

・Next steps:

a. Book compiling: Biodiversity Informatics in Asia
b. Updating of database
c. Mapping Asia Plants (MAP) project focusing on the 100 most endangered plants in Asia and Plant Diversity Information platform in Southeast Asia.

10. The NatureServe Dashboard

Dr. Xuemei Han, NatureServe

・NatureServe is a non-profit conservation organization and its mission is to provide the scientific basis for effective conservation action. The Dashboard project discussed today is an effort globally, including Southeast Asia Mekong basin countries, where we partnered with ACB to generate and visualize many of the regional indicators. This project started four years ago, with funding support from the MacArthur Fund, and by working with a wide range of international partners. We aim to provide an indicator visualization and communication tool to measure success and challenges toward conservation.

・The NatureServe Dashboard is a web-enabled, interactive biodiversity indicators dashboard tool to help track progress toward Aichi targets, support national monitoring and reporting and inform outcome-based policy-making for the protection of natural resources. The dashboard developed maps and graphics for three geographically diverse regions of critical biodiversity concern including the Tropical Andes, the African Great Lakes and the Greater Mekong region. NatureServe Dashboard provides visual demonstration of changes in biodiversity, the red list index for exploited species. The dashboard will be expanded to cover at least 50 countries in the world.

11. ASEAN Clearing-House Mechanism

Mr. Christian Elloran, ACB

・The ASEAN Regional Clearing House Mechanism (ASEAN CHM) is a one-stop web service of all biodiversity information in the ASEAN region. It was established to provide information of biodiversity in the region as bases for science-based analysis, decision making and policy development.

・The ASEAN CHM provides free and easy access on:
   a. Species database (68,750 species)
   b. Protected areas database
   c. Invasive Alien Species
   d. References
   e. Knowledge products
   f. Biodiversity Informatics

・ACB populates the ASEAN CHM with data and information acquired from national CHM websites of AMS and global biodiversity data holders. Various online tools (electronic library, poster, video,

etc.) are being developed and made available from the website to assist the AMS in organizing and managing their biodiversity data.

12. The Evolution of the Malaysian Clearing-House Mechanism
Mrs. Hamidah Mamat, FRIM

・Malaysia Clearing-House Mechanism is being re-branded into Malaysia Biodiversity Information System (MyBIS) and it will be launched this year. MyBIS formerly is a platform for the efficient exchange of biodiversity information among stakeholders in Malaysia. MyBIS boosts of four new features – discover, explore, analysis and references – which enable users to search and analyze taxonomic information particularly for endangered and endemic species as well as generate assessments particularly spatial data on protected areas.

・The national clearing-house mechanisms are necessary and important platforms for the efficient exchange of biodiversity information for biodiversity conservation and management. Thus, such platforms should be evolving, dynamic and responsive in its delivery of information to various stakeholders particularly decision makers and policy makers.

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