



# **BIODIVERSITY INFORMATION IN VIET NAM**

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# Outlines

1. Introduction of BCA/VEA/MONRE

2. National Biodiversity Database System (NBDS)

3. Follow-up actions to promote Biodiversity Data in Viet Nam

4. Recommendations



# 1. Introduction of Nature and Biodiversity Conservation Agency (BCA)

## ■ Mandates and responsibilities

1

- Submit Vietnam Environment Administration (VEA) legal-normative documents, strategies, planning and technical guidelines on biodiversity conservation

2

- Provide guidance and supervise the implementation of legal documents, strategies, planning, plans, programs, projects on biodiversity

3

- Inspection and monitoring on implementation of biodiversity conservation. Compile Viet Nam Red book



# 1. Introduction of BCA

4

- National focal point organization for International Conventions and protocols: CBD, Ramsar, GTI, GBIF, Cartagena, Nagoya....

5

- Implementing bilateral international cooperation with partners (GEF, ADB, ACB, JICA ....)

5

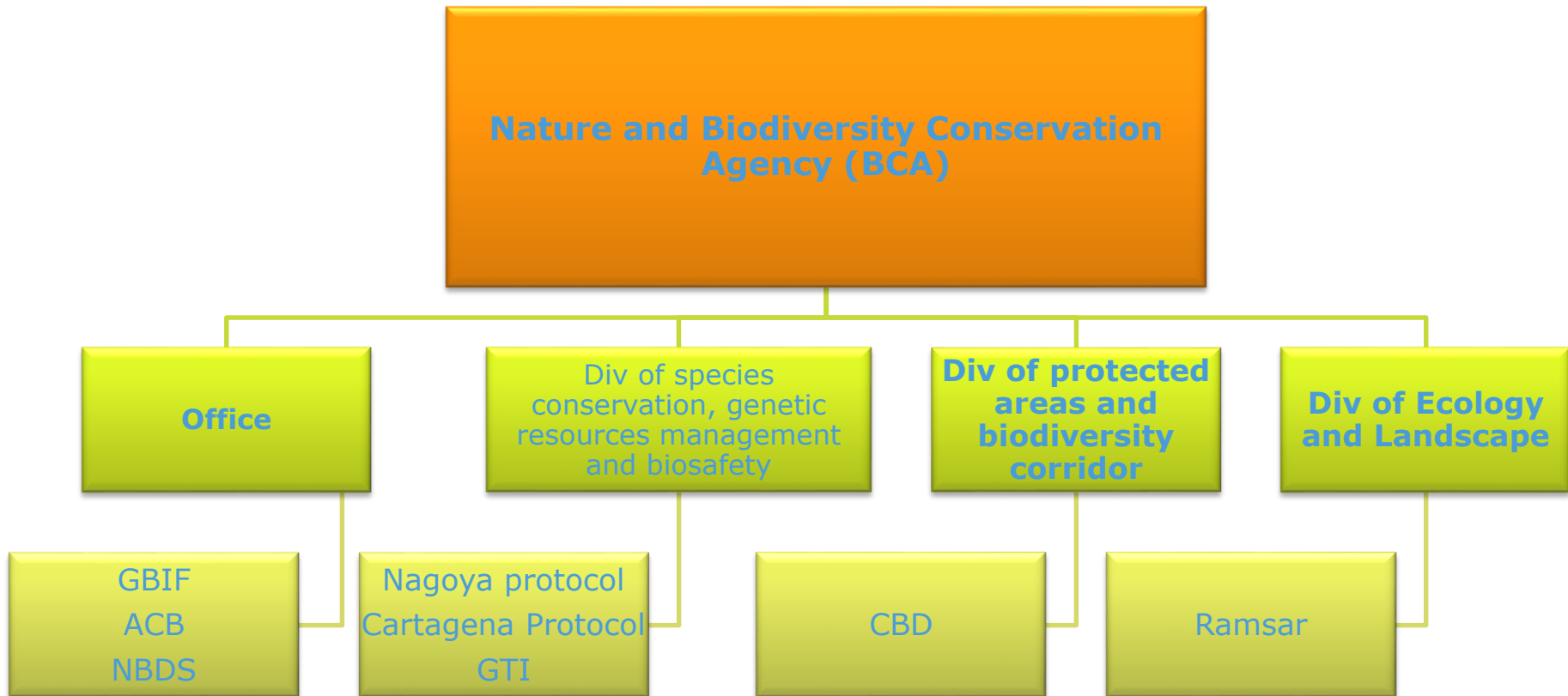
- National focal point in managing biosafety to genetically modified organisms (GMO) and GMO products

6

- National focal point of database and information on biodiversity, scientific researches...



# Organizational Structure of BCA



# Function of Biodiversity data Management

- Building, managing, operating and exploiting the national biodiversity database;
- Collect, process, store, update, share and exploit biodiversity information and data provided by organizations and individuals;
- Develop and promulgate regulations to decentralize access, manage the connection, share and provide data from the National Biodiversity Database with individuals, organizations, focal points and Focal point of the provincial department;
- Coordinating with relevant ministries, branches and provincial People's Committees to organize the collection and processing of biodiversity data in order to build a national biodiversity database.



# 2. National Biodiversity Database System (NBDS)

## Vietnam National Biodiversity Database System



Species

Dataset

Region

Protected Area

### Welcome!

This system provides up-to-date biodiversity information in Vietnam.

- [Search species information in Vietnam](#)
- [Search metadata of biodiversity data set in Vietnam](#)
- [Search biodiversity information for a specific region in Vietnam](#)
- [Search biodiversity information for a specific protected area in Vietnam](#)

Home

Login

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## **2. National Biodiversity Database System (NBDS)**

**The 2<sup>nd</sup> generation of NBDS will be developed and operated**

**2015- now: NBDS 1<sup>st</sup> generation is released and maintained**

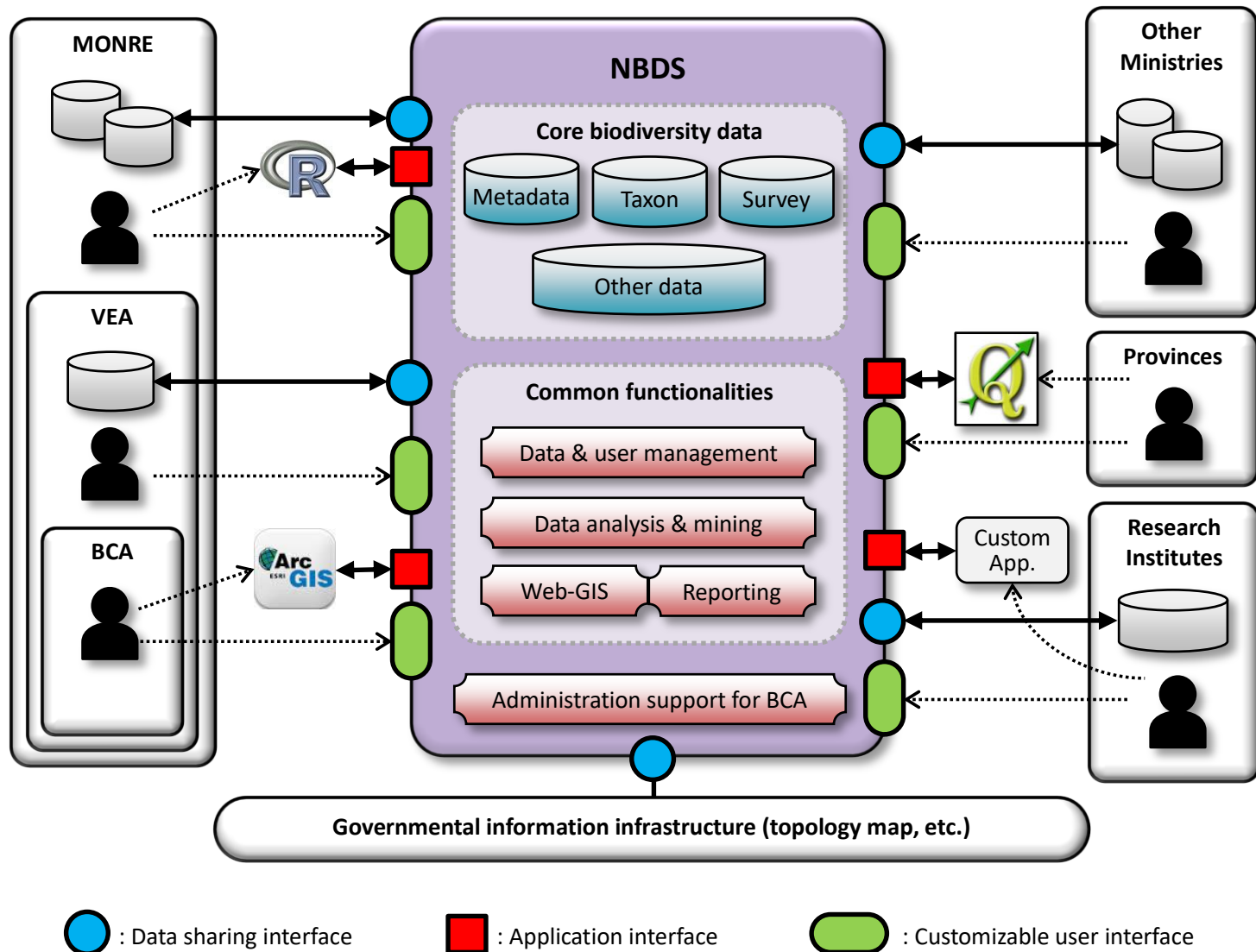
**NBDS Project, supported by JICA, implemented by BCA (11/2011- 03/2015)**



## 2.1. Basic strategy of NBDS design

- 1. Be a portal for biodiversity information in Vietnam**
  - Try to create a network of existing data in Vietnam
- 2. Focus on the core data / functionality**
  - Don't duplicate the existing effort / data / functions
  - Don't try to be all-in-one system
- 3. Provide flexible interface**
  - Co-work with external data / external applications
  - Don't force users to adapt to NBDS.  
NBDS should try to adapt to the users.
- 4. Comply with national / international standards**

## 2.2. Basic architecture of NBDS



## 2.3. NBDS Users

User Category	User Level	Example of user
Primary user (Official user)	Central government	<ul style="list-style-type: none"> <li>· MONRE / VEA / BCA</li> <li>· MARD</li> <li>· MOST</li> </ul>
	Local government	<ul style="list-style-type: none"> <li>· PPC</li> <li>· DONRE</li> <li>· DARD</li> </ul>
	Protected area	<ul style="list-style-type: none"> <li>· National Parks (XTNP, etc.)</li> </ul>
Secondary user (Contract-based or Voluntary user)	Organizational user	<ul style="list-style-type: none"> <li>· Research institutes (IEBR, etc.)</li> <li>· Universities (VNU, etc.)</li> <li>· NGOs</li> <li>· International organizations (IUCN, etc.)</li> </ul>
	Individual user	<ul style="list-style-type: none"> <li>· Anonymous user (Visitor)</li> <li>· Contributor</li> </ul>

## 2.4. Internal data structure of NBDS

No.	Group of Data Structure	Status
1	Metadata for Biodiversity Information	<ul style="list-style-type: none"> <li>• <b>23</b> fields (Title, Publication date, Location, Taxonomic coverage, etc.)</li> <li>• International standard: GBIF- Darwin Core</li> </ul>
2	Species (Taxon)	<ul style="list-style-type: none"> <li>• <b>65</b> fields: <b>43</b> basis fields (Scientific name, Kingdom ~ Specific epithet, Vernacular name) &amp; <b>22</b> extension fields (CITES, VN law to protect, Province, Invasive status, etc.)</li> </ul>
3	Occurrence (Survey)	<ul style="list-style-type: none"> <li>• <b>171</b> fields: <b>159</b> basis fields (Species, Date, Location, Life stage, Recorder, etc.) &amp; <b>12</b> extension fields (Preservation method, Air/water temp., weather, water/soil pH, etc.)</li> </ul>
4	Ecosystems Diversity	<ul style="list-style-type: none"> <li>• Ecosystem classifications</li> <li>• List of Ecosystems in Vietnam</li> </ul>
5	Genetic Diversity	<ul style="list-style-type: none"> <li>• Not implemented yet / No standard in the world</li> </ul>
6	Socio-Economic data	<ul style="list-style-type: none"> <li>• NOT duplicate existing data, no huge storage</li> </ul>
7	Data for provinces	Customizable
8	Data for Biodiversity Policy and Administration (for BCA)	
9	Data for System Management	
10	Other data	Other data stored and managed by NBDS

## 2.5. Status of Data collection in NBDS (7/2019)

*\*(In cooperation with JICA SNRM project)*

### ■ Dataset (171 datasets)

- VN Red List / Red Book (2003 / 2007)
- Data from 30 Protected Areas and National parks
- Species checklists ( Fauna/Flora in Vietnam, XTNP survey)

### ■ Taxonomy (64.258 records)

- VN Red List / Red Book (2003 / 2007)
- Species checklists (Derived from Fauna/Flora in Vietnam, XTNP survey)

### ■ Occurrence ( 27365 records)

- Survey at Xuan Thuy National Park (Currently up to the 2<sup>nd</sup> survey)
- Data from 30 PAs



**Visit portal of NBDS at:**

<http://nbds.fimo.edu.vn/>




# 3. Follow-up Actions for Biodiversity Data in Viet Nam

- **Further completion and upgrade of NBDS**
  - Evaluate the system, error checks and improve existing functions
  - Link to GBIF and develop reporting tools
- **Mobilization of biodiversity data from Protected Areas, primarily from PAs in the list of National Monitoring Network (Prime Minister Decision No.90)**
  - **Accumulate the data under forms**
  - Verify and standardize the collected data
  - Digitalize into NBDS



# 3. Follow-up Actions for Biodiversity Data in Viet Nam

- **Improve the mechanism and guidelines for biodiversity data**
    - Research and develop the technical guideline regarding to inventory, survey, monitoring and reporting
    - Mechanism for data sharing and exchange
  - **Capacity building for stakeholders**
    - Awareness about the significance of data sharing
    - NBDS/GBIF
    - Technical issues relating to biodiversity data
  - **Promoting the node of Viet Nam, enhancing network**
    - Link to GBIF
    - Enhance the data providers network and nodes
- 



## 4. RECCOMENDATIONS



National capacity building for Viet Nam to be the Associate member of GBIF

Supporting the operation of National Node in Viet Nam

Technical support in data management and mobilization

Supporting tools for reporting and visualization

Thank  
you

