



GEO BON in support of GBF Monitoring Framework



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CENTRE DE LA SCIENCE
DE LA BIODIVERSITÉ
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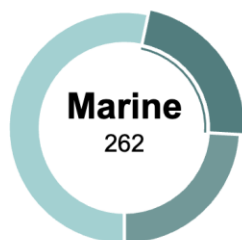


GEO BON in a nutshell

A global Partnership:
1792 registered members from 123 countries and 1116 institutions



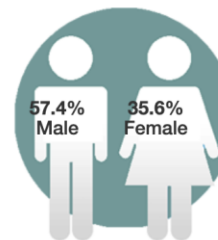
Realms studied



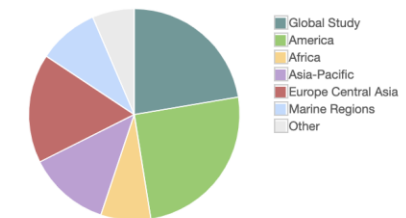
Earth Observation Approach



% Gender Balance



Geographic zone studied



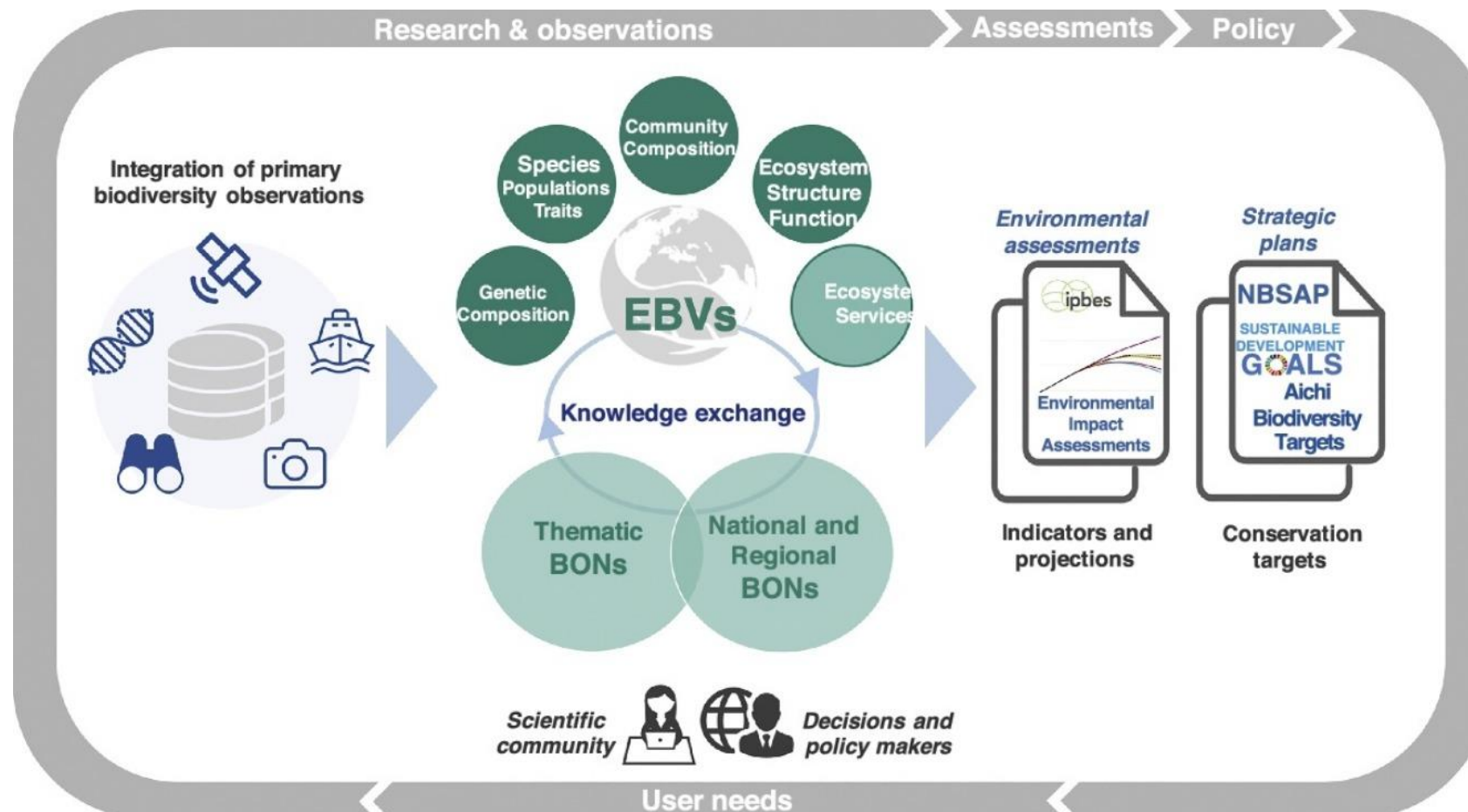
GEO BON's mission

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

In the GBF context, GEO BON Support Parties to the CBD to easily and effectively track and guide progress to national targets by:

1. Providing guidance so that Parties can easily identify appropriate indicators (i.e. Headline, Component and Detailed Indicators) for the different targets.
2. Providing access to user-friendly indicator methodologies
3. Providing guidance for the sustained production, delivery and use of biodiversity indicators.

Providing essential biodiversity variables to support robust monitoring of indicators



The Essential Biodiversity Variables

Minimum set of measurements, **complementary** to one another, that can capture major dimensions of biodiversity **change**.

EBVs are:

- ✓ Biological and policy relevant
- ✓ Sensitive to change
- ✓ Biological state variables
- ✓ Generalizable across realms
- ✓ Scalable
- ✓ Feasible



Genetic Composition
e.g. Allelic diversity



Species Populations
e.g. Species distribution



Species Traits
e.g. Body size, phenology



Community Composition
e.g. Species interactions



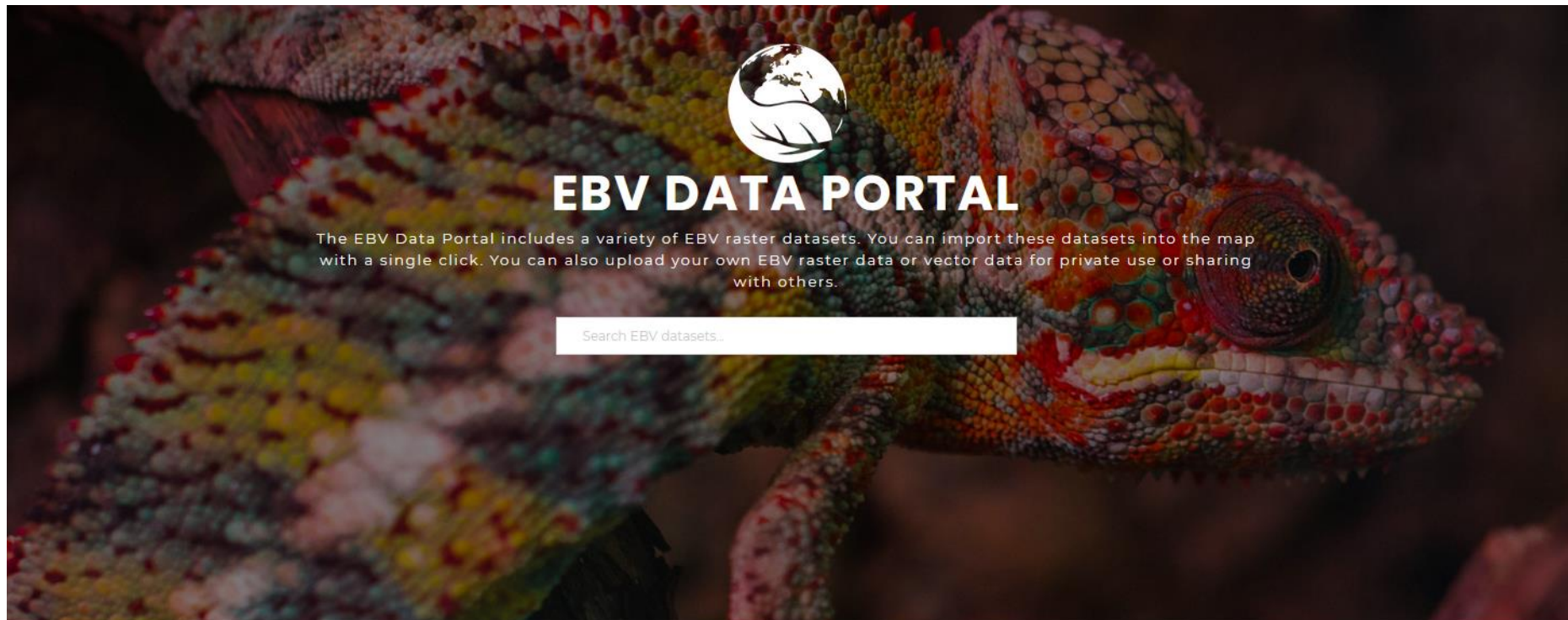
Ecosystem Structure
e.g. Ecosystem extent



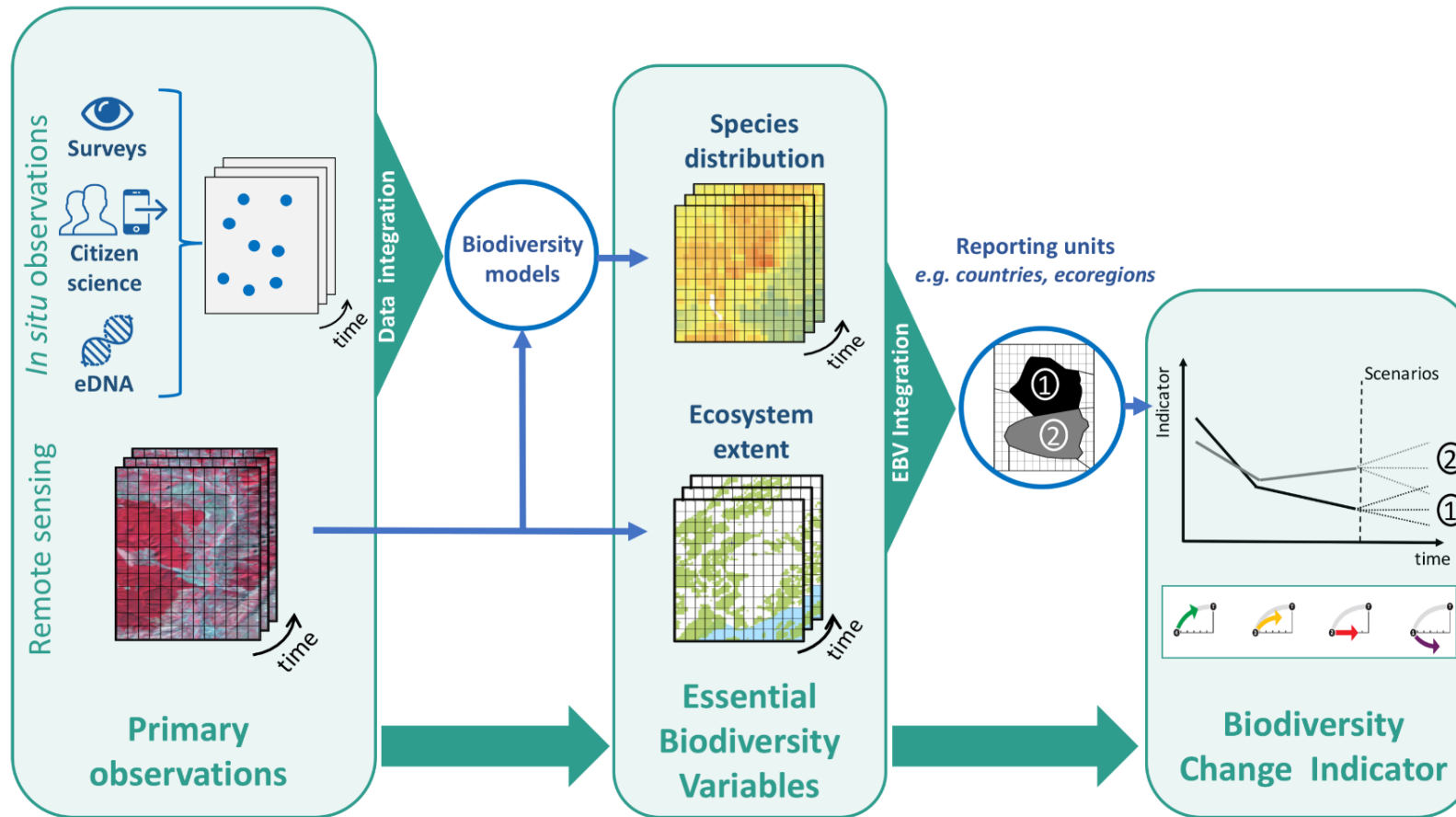
Ecosystem Functions
e.g. Disturbance

The Essential Biodiversity Variables

Minimum set of measurements, **complementary** to one another, that can capture major dimensions of biodiversity **change**.



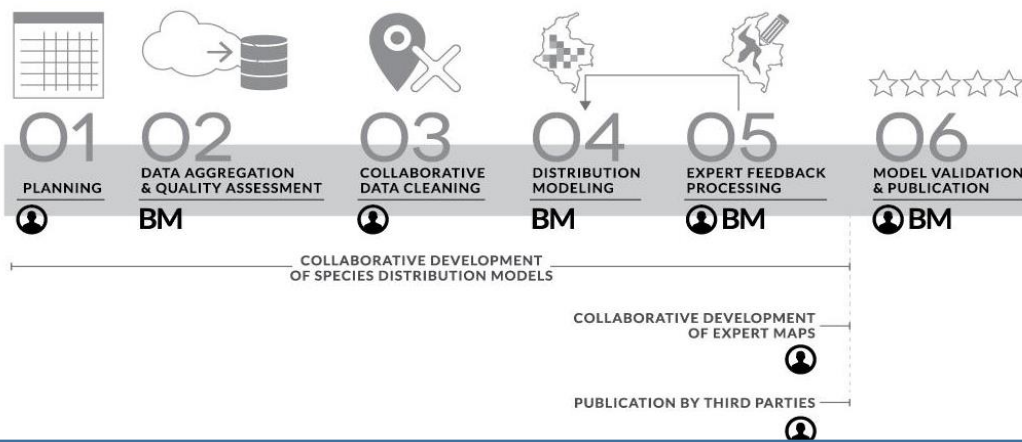
Developing the Essential Biodiversity Variables



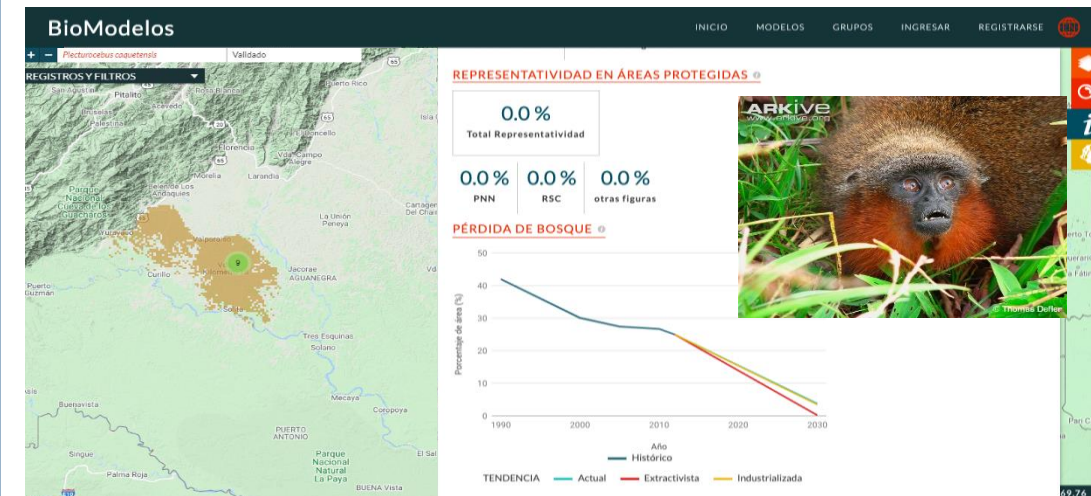


Species Populations Species distribution

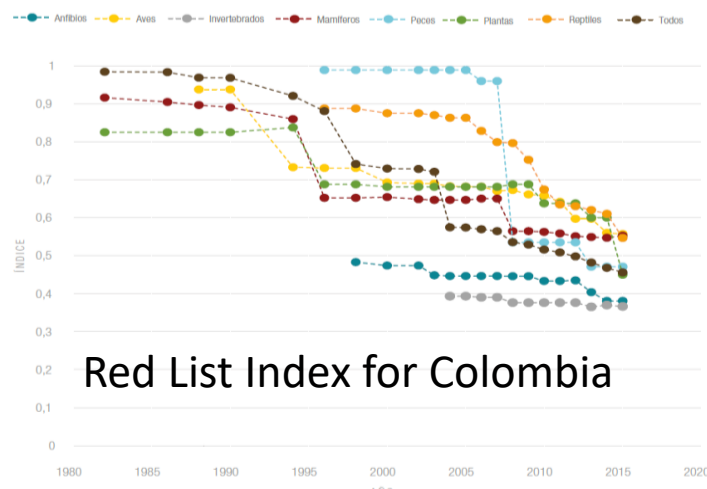
EBV workflow in Colombia



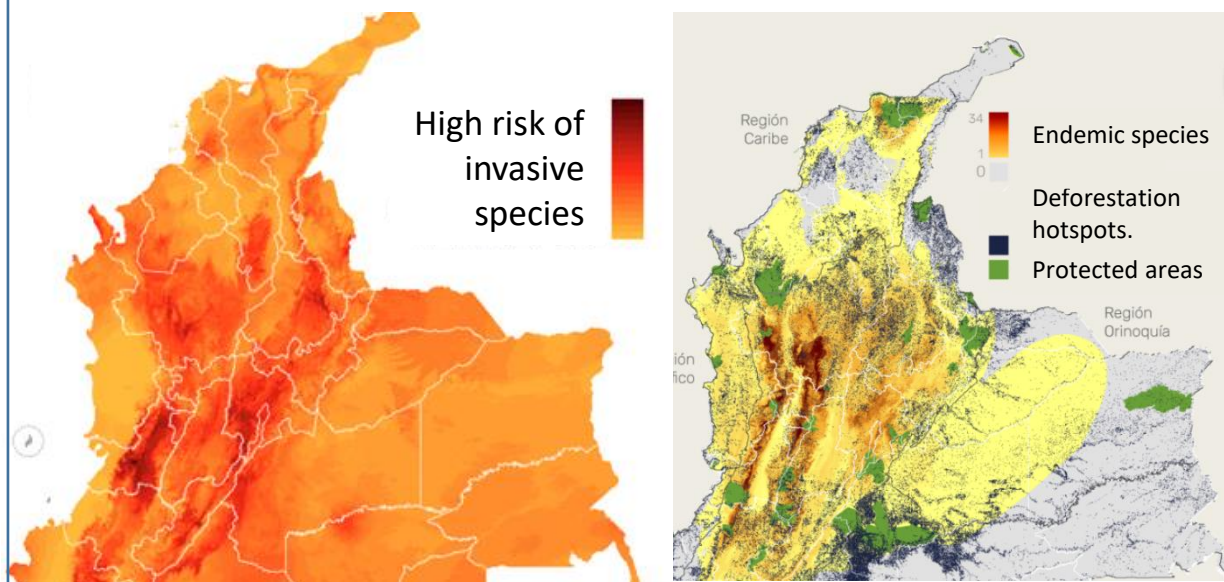
1. Species distribution maps and indicators: representation in protected areas and habitat loss, are available at BioModelos platform: <http://biomodelos.humboldt.org.co> for each species.



2. Metrics and indicators are used for species extinction risk assessment:



3. Multispecies analysis generates national indicators:



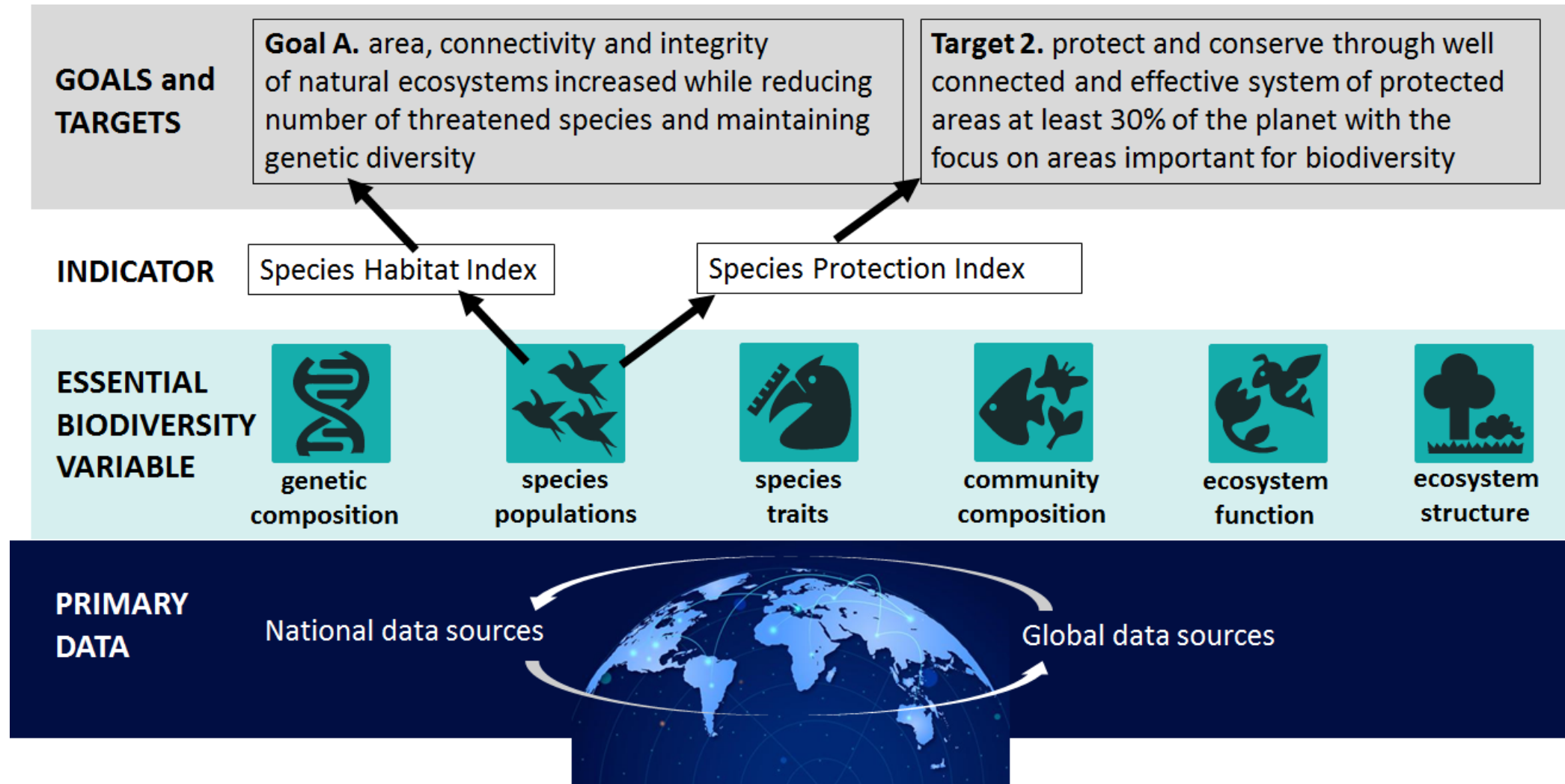
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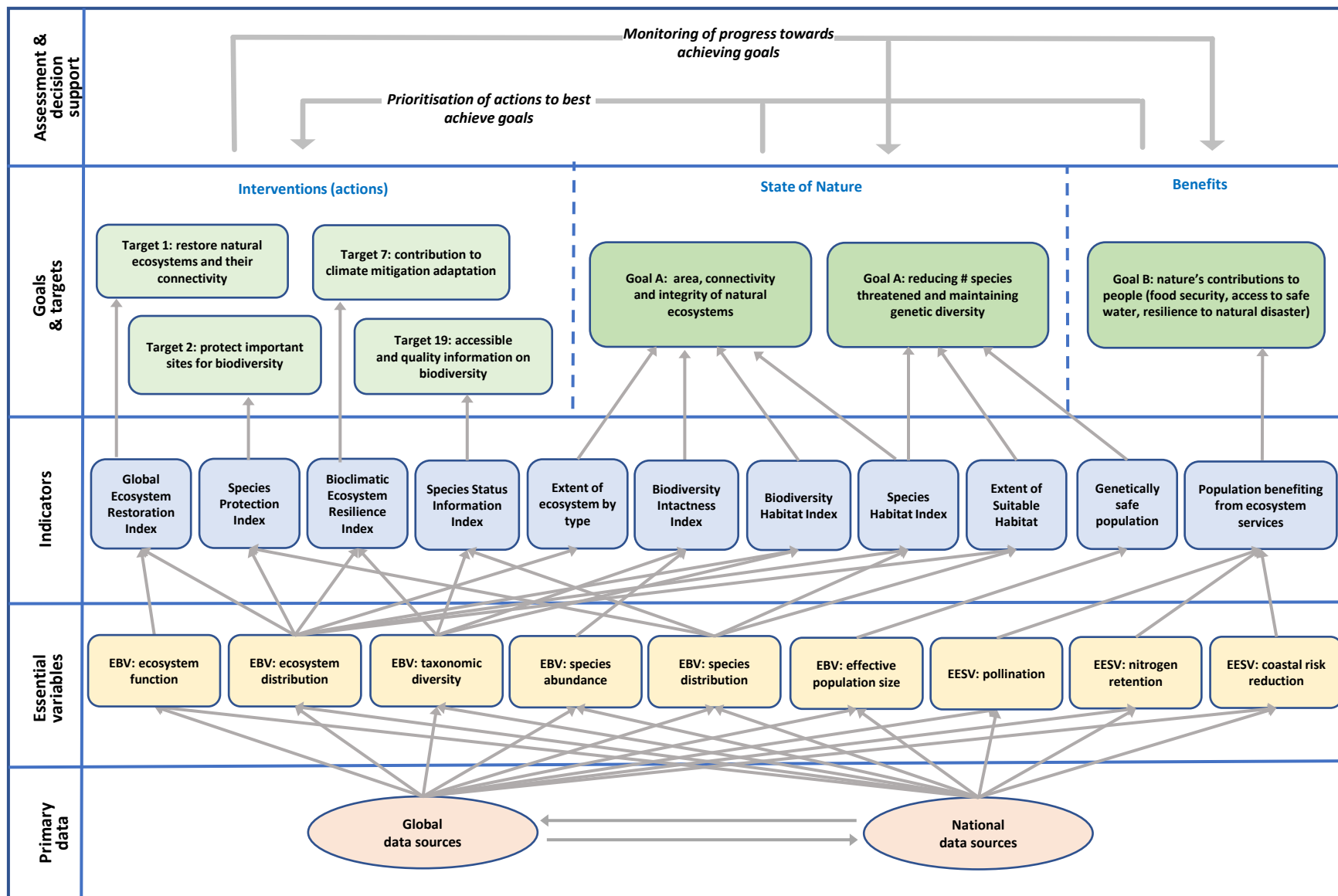


ALIADOS



Mapping EBVs to post-2020 GBF





The Biodiversity Observation Networks (BONs)



BONs contribute to the **collection** and **analysis** of **harmonised biodiversity observations**, the development of integrated and interoperable **biodiversity monitoring programs**

National and Regional BONs

China BON	Arctic BON
Colombia BON	Asia Pacific BON
French BON	Americas BON

Thematic BONs

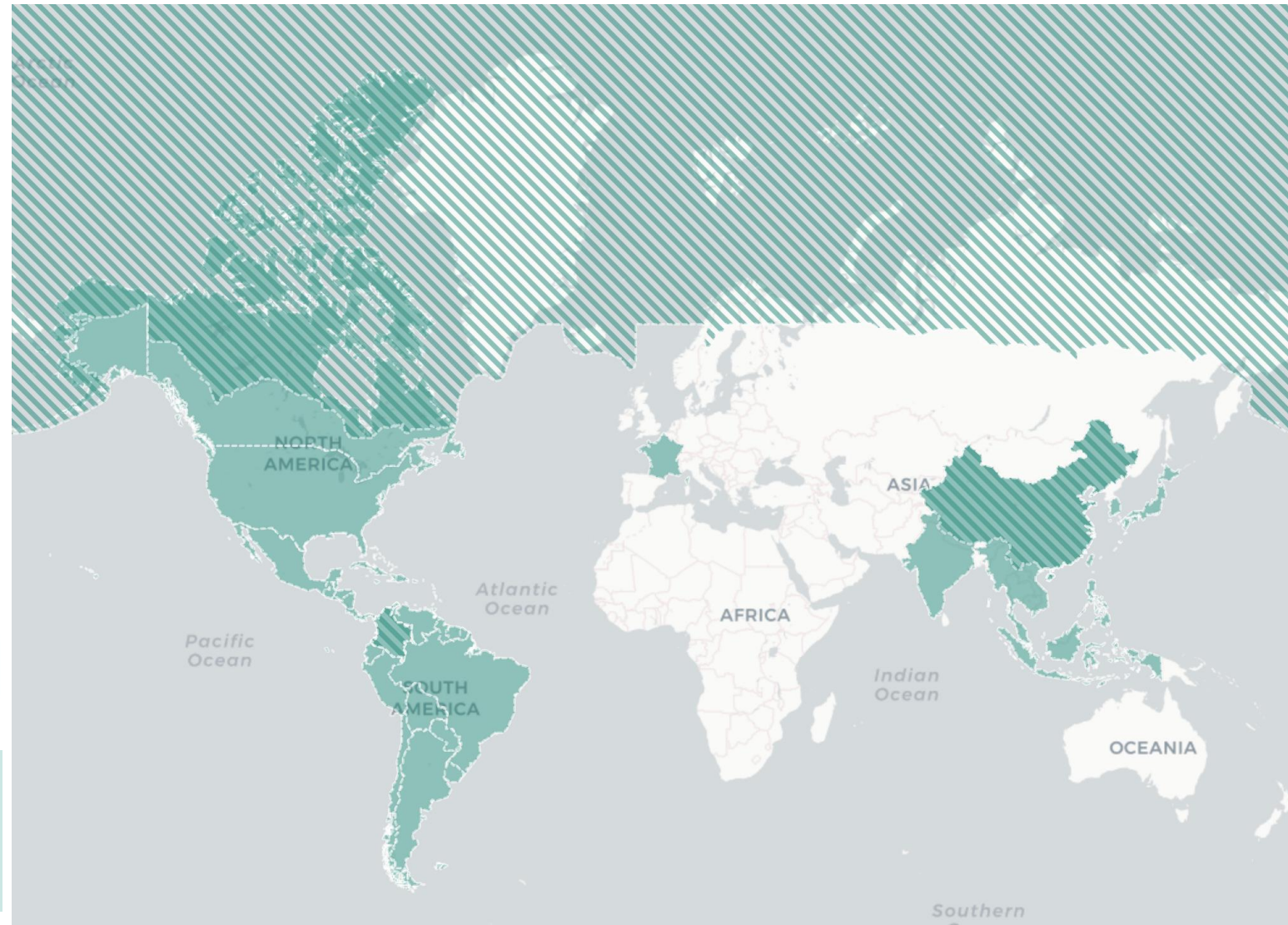
MBON
Marine Biodiversity
Observation Network

AP MBON
Marine Biodiversity
Observation Network

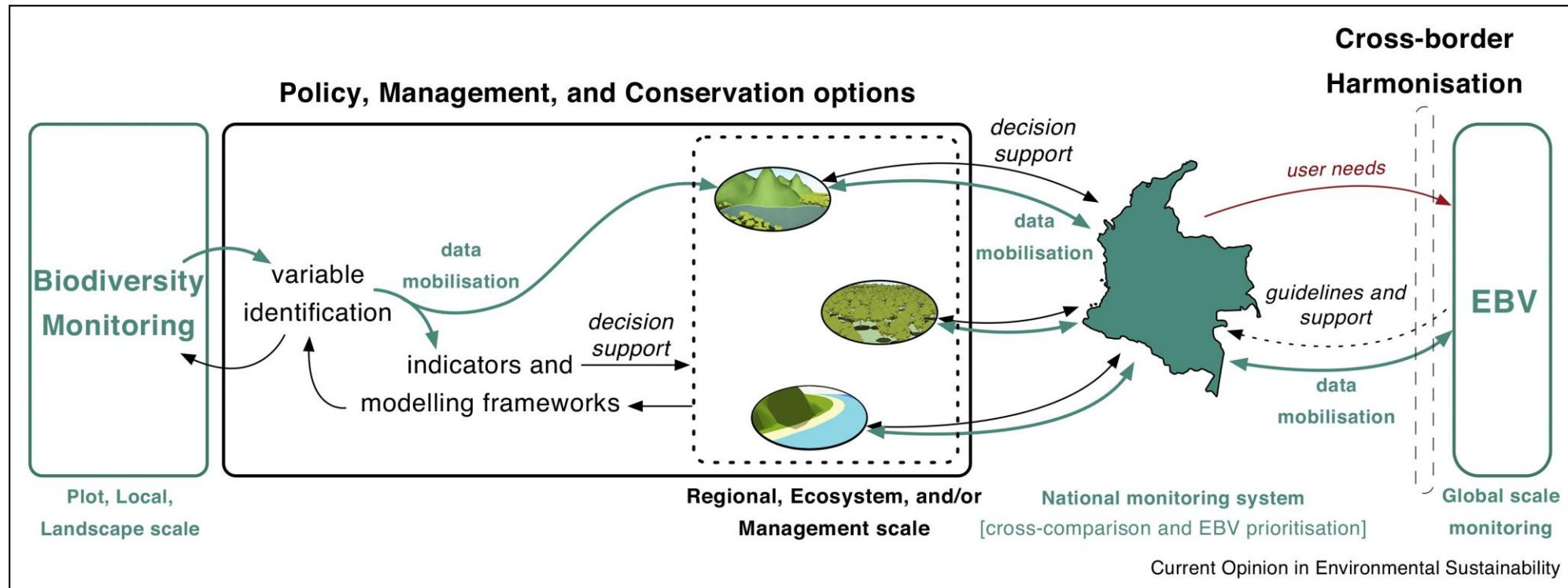
FWBON
Freshwater Biodiversity Observation Network

Soil BON

Other developing BONs in Canada, Quebec, Switzerland, Bahamas, Ghana, Uganda, Antarctica

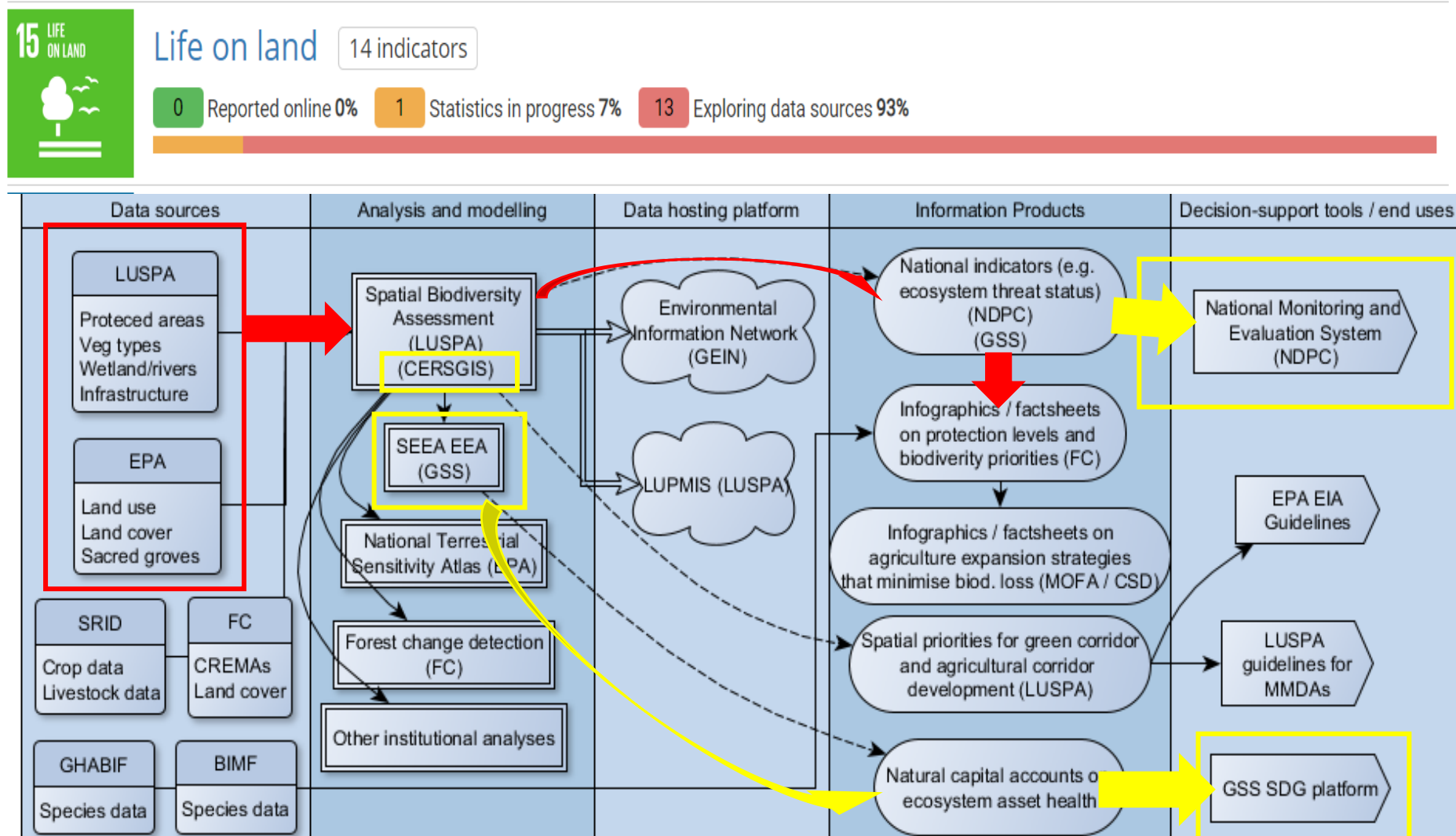


A Biodiversity Observation Network



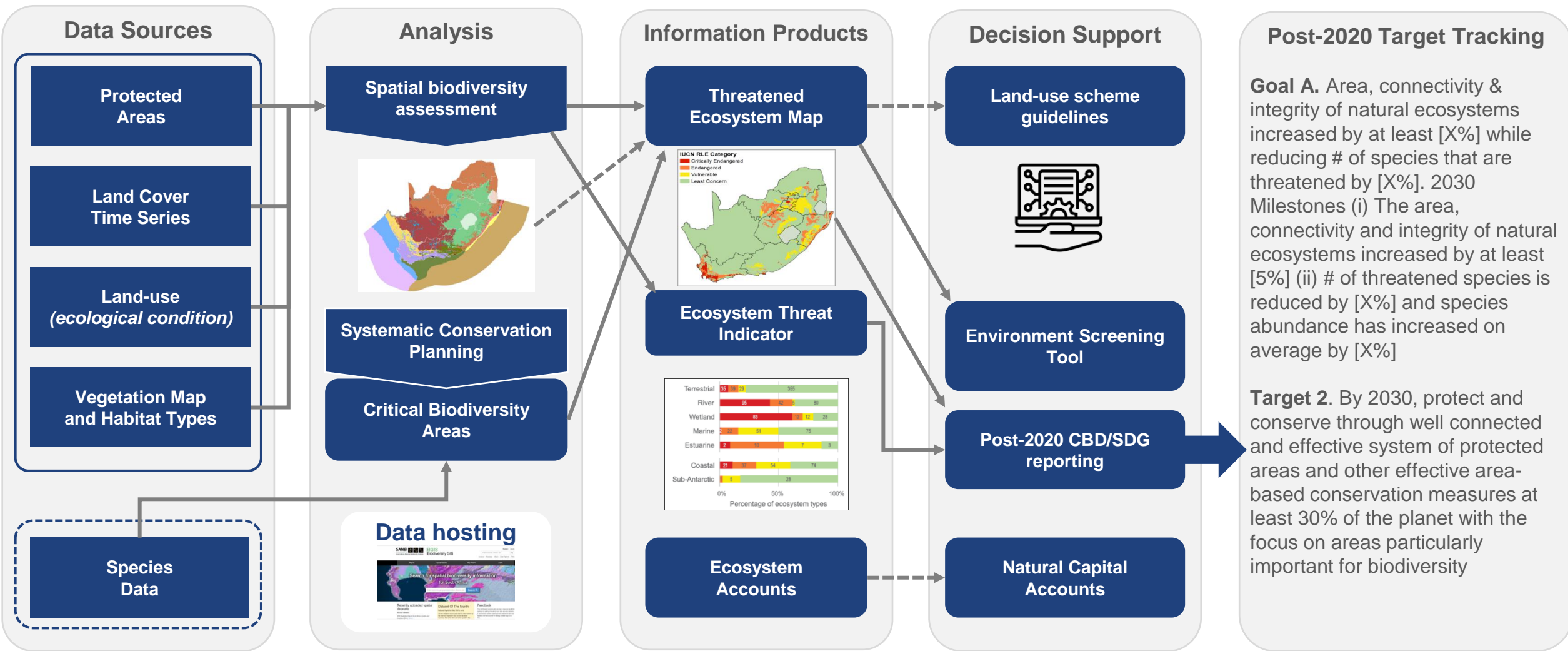
Navarro et al. 2017

Repeatable Workflows: From Data to Decision



Transforming Data to Conservation Intelligence

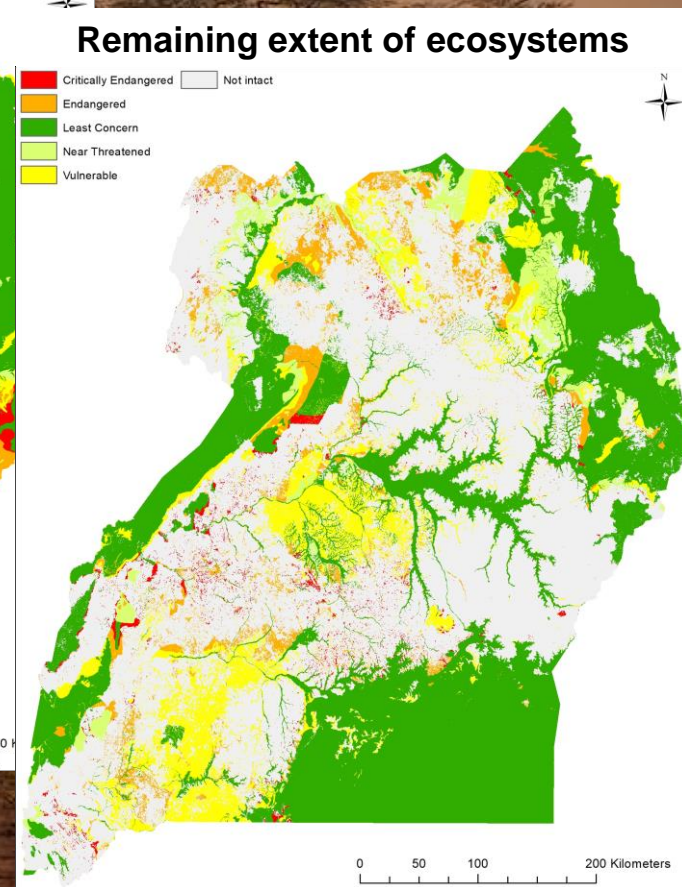
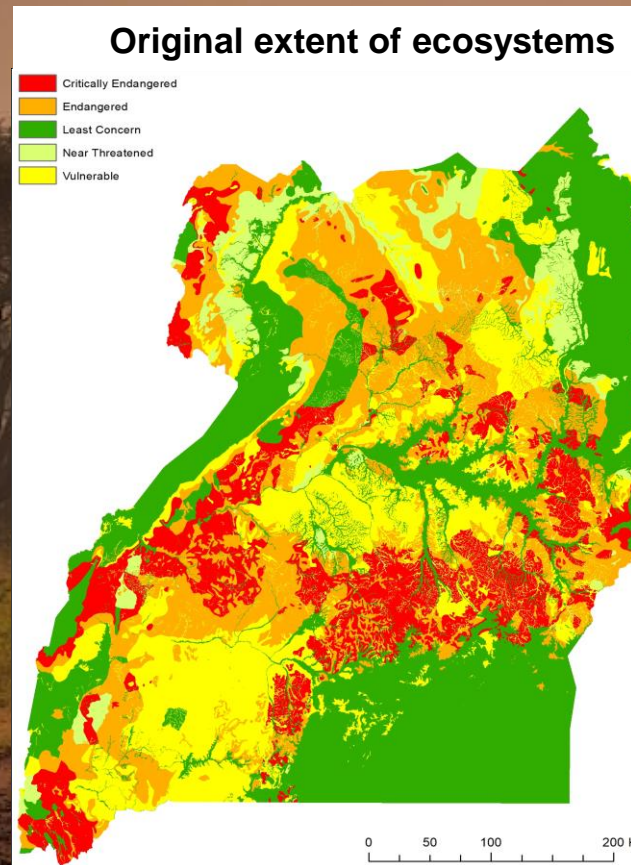
Repeatable, Harmonized Workflows

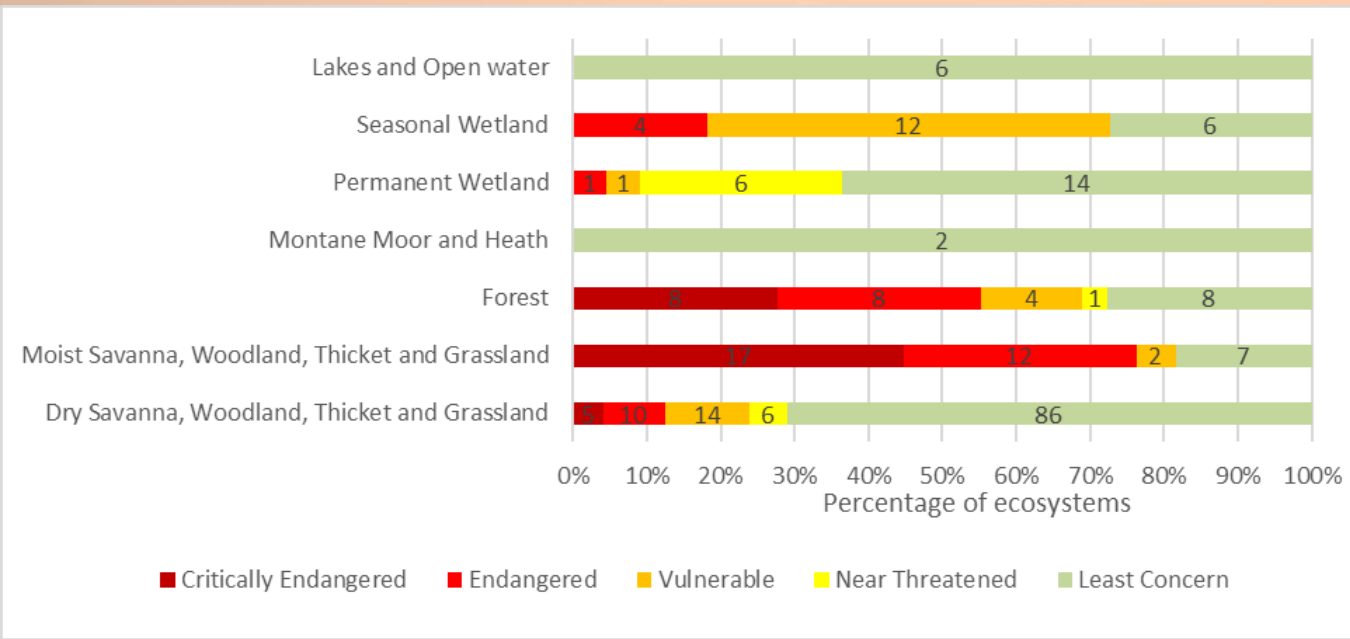


**Adapted from Matthew Child, South African National Biodiversity Institute*

Spatial Planning Outputs

Ecosystem Threat Status

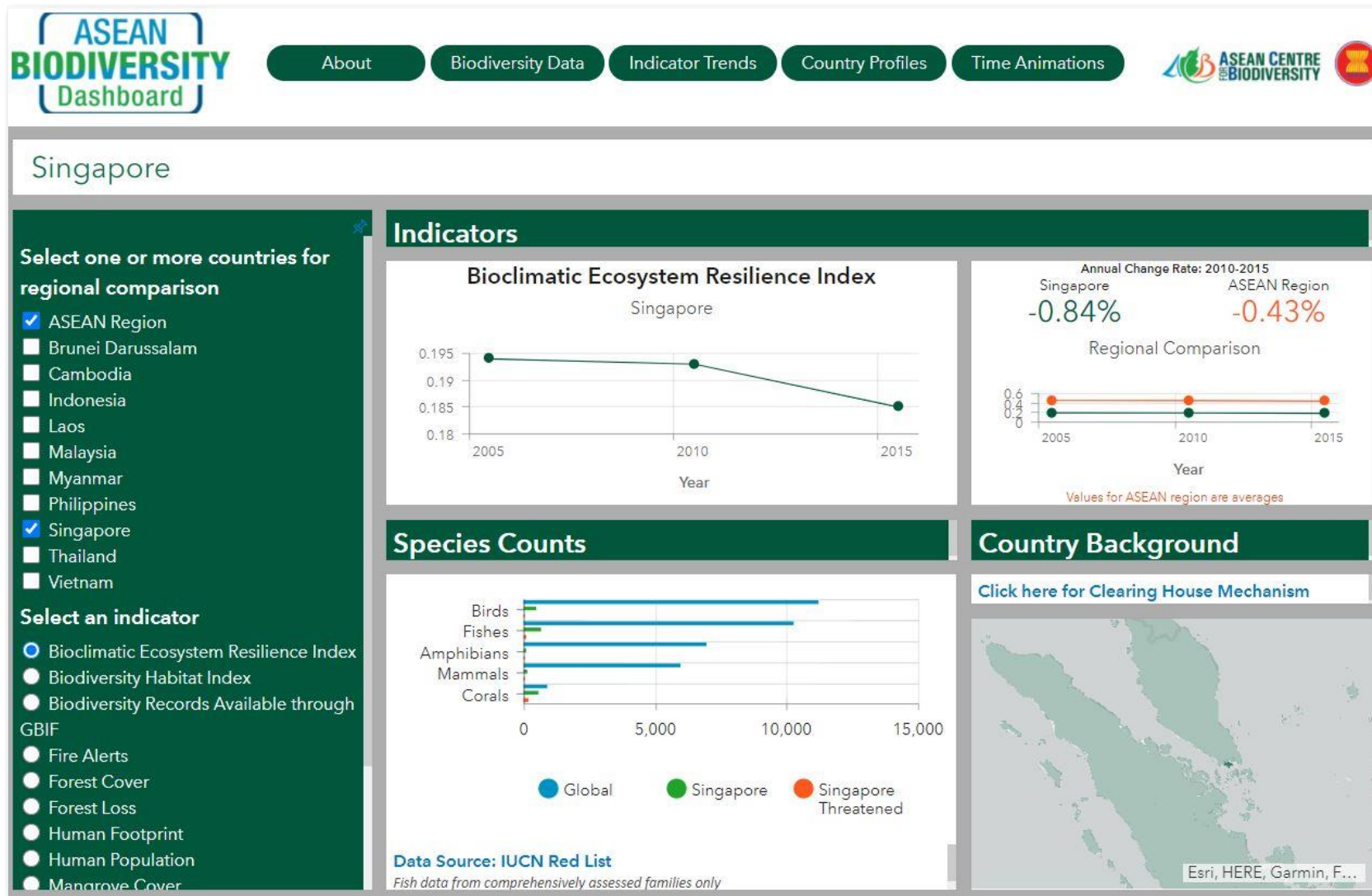




Assessment | Ecosystem Threat Status Indicators

Uganda Spatial Biodiversity Assessment (Connect Africa: Stephen Holness, Nelson Mandela University)

Indicator Reporting Systems: Biodiversity Dashboards



GEO BON: A Global Partnership for Supporting the GBF



Webinar series - Save the date!

July 12: **Species populations and area-based conservation** (Lead GEO BON)

July 26: **Genetic diversity** (Lead GEO BON)

August 18: **Ecosystem services** - ARIES- GEP (Lead SEEA)

September TBD: **Ecosystem extent/integrity + Connectivity** (Lead GEO BON)

October TBD: **Tools for national reporting** (Lead WCMC)

More to come!

Questions and answers

