

GEO BON Implementation Plan Meeting Asilomar, California, 22-25 Feb 2010

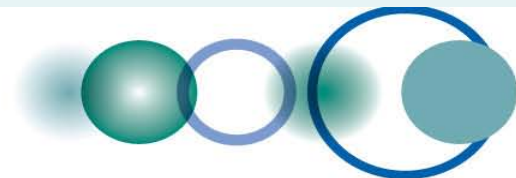
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Outline



- The context: the biodiversity science-policy interface
- GEO BON
 - Why do we need a GEO BON?
 - What has happened so far?
 - What is GEO BON?
 - What will GEO BON do?
 - Who will the beneficiaries be?
 - What structure do we have in place?



Climate science-policy landscape

**Research
(WCRP, IGBP, ESSP)**

World Climate Research Pg
International Geosphere-Biosphere Pg
Earth System Science Partnership

**Assessment
(IPCC)**

**Observations
(GCOS, GOOS)**

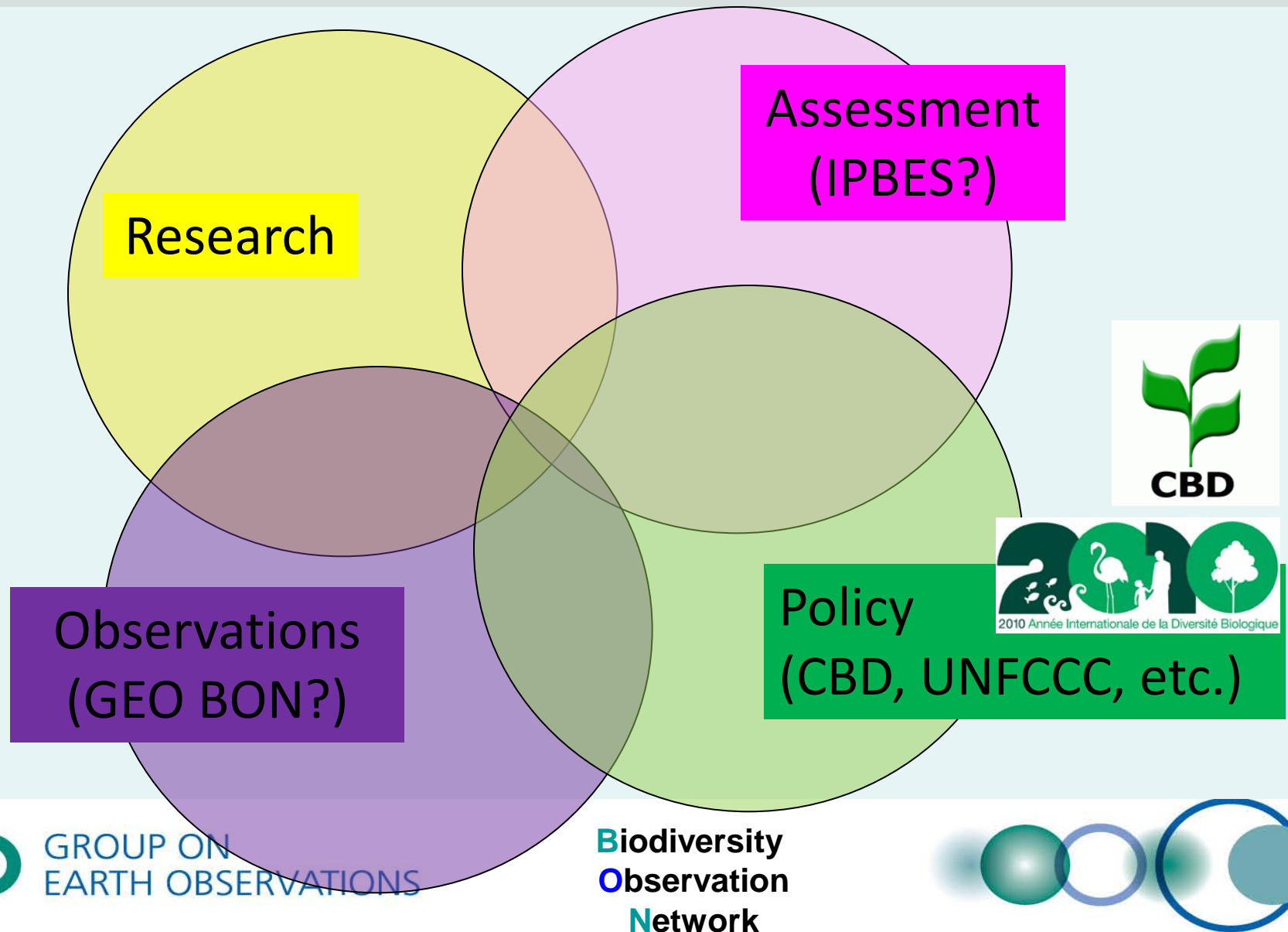
Global Climate Observing System
Global Ocean Observing System

**Policy
(UNFCCC)**

**Biodiversity
Observation
Network**



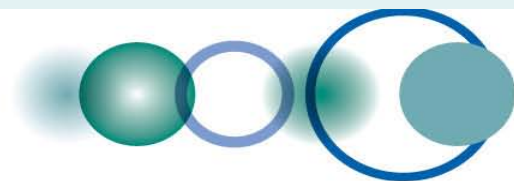
Biodiversity science-policy landscape



2nd intergovernmental negotiation mtg on IPBES



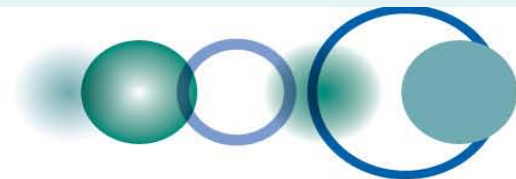
- Nairobi, 5-9 Oct 09
- 225 delegates, 95 countries
- Science & civil society represented by ICSU, DIVERSITAS & IUCN
- Plenary statements on views of sci. community (including need for GEO BON)
- 3rd (final?) negotiation: 7-11 June 2010



Outline

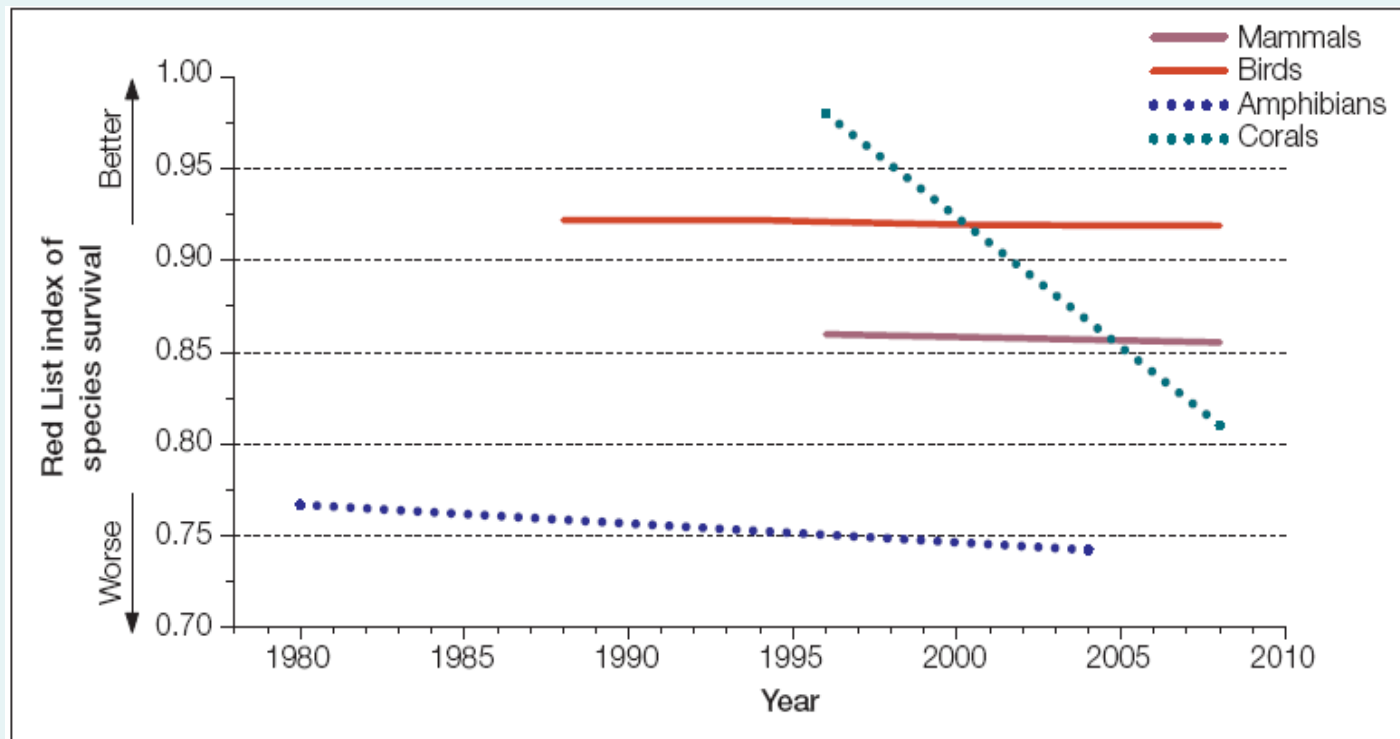


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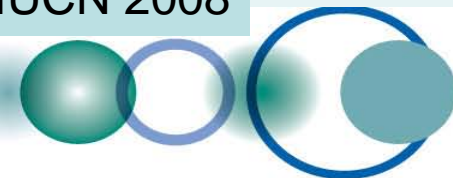


Why GEO BON? The 2010 target will be missed

- Global Biodiversity Outlook 3 (CBD): "...despite the considerable efforts which have been made, ...they have not been sufficient, and as a result the 2010 biodiversity target has been missed."

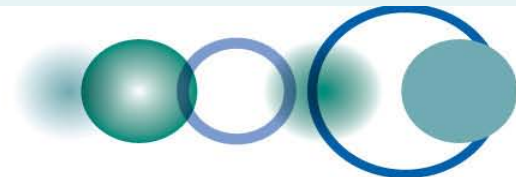


Butchart et al 2004 PLOS Biology; IUCN 2008




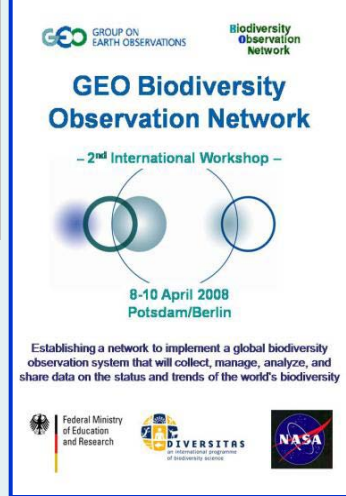
Why GEO BON? We do not have the right tools

- The picture is patchy
 - Geo-spatial gaps
 - Taxonomic and Thematic gaps (e.g. ecosystem services, genetic diversity)
 - Inconsistency in space, time & quality
- Access is limited
 - Many more data are collected than are used
 - Key constraint is ‘interoperability’
 - Requires
 - Data sharing policies and protocols
 - Harmonisation of methods



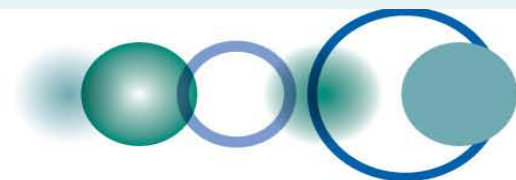
What has happened so far?

- 2005: Group on Earth Observations (GEO) established Global Earth Observation System of Systems (GEOSS)
 - Biodiversity is one of 9 “Societal Benefit Areas”
- 2006 Oct: **First International Workshop** (Geneva)
- Jan 2008: GEO BON Steering Committee formed (Geneva)
- Apr 2008: **2nd International workshop** (Potsdam)
 - Produce GEO BON concept document
 - Initiate work toward GEO BON implementation plan
- Nov 2008: GEO BON concept doct approved at GEO V plenary (Bucharest)
- Jun 2009: 1st meeting of GEO BON Scientific Committee (Geneva)
- Feb 2010: **3rd International workshop** (Asilomar)  **We are here**
 - Finalise GEO BON Implementation Plan (**live doct**)



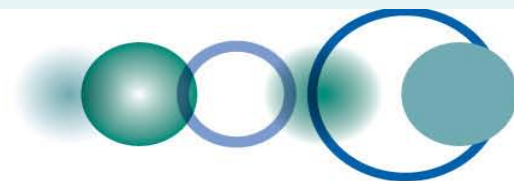
GEO BON: who are “we”?

- **Steering committee meets approximately annually**
 - 22 people: stakeholders, implementers, experts; Chair: Bob Scholes
- **Limited resources from GEO secretariat** (Michael Williams, Brad Reed)
- **Limited resources from 3 lead organisations:** EC (EBONE; Rob Jongman), ****NASA**** (Gary Geller, Woody Turner) and DIVERSITAS (Anne Larigauderie)
- **Topical working groups**
 - Genetics (Tet Yahara and Daniel Faith)
 - Terrestrial Species Monitoring Programmes (Henrique Pereira)
 - Terrestrial Ecosystem Monitoring (Rob Jongman)
 - Freshwater Ecosystem Monitoring (Ian Harrison, Eren Turak)
 - Marine Ecosystem Monitoring (Jan de Leeuw and Carlo Heip)
 - Ecosystem Services (Hal Mooney)
 - In-situ / Remote-sensing Integration (Simon Ferrier)
 - Informatics and Portals (Hannu Saarenmaa and Eamonn O Tuama)
- **Regional or thematic BONs**
 - Asia-Pacific Regional BON
 - EBONE (Europe)
 - Etc.

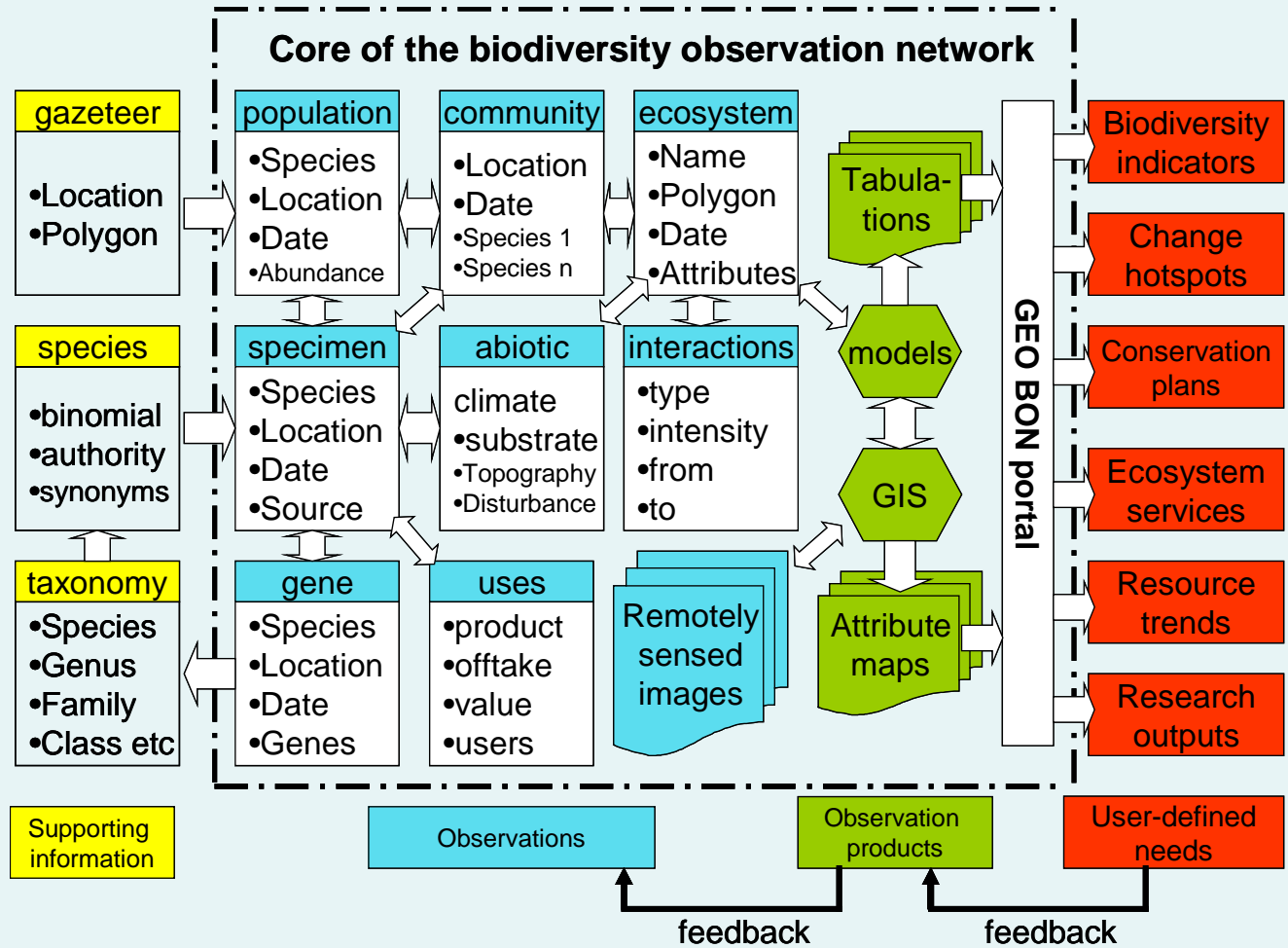


What is GEO BON?

- GEO BON (GEO Biodiversity Observation Network) is a new global partnership to help collect, manage, analyse & report data relating to the status of the world's biodiversity (**concept doct**)



GEO BON: An integrated biodiversity observation system



POLICY FORUM

ECOLOGICAL

Toward a Global Biodiversity Observing System

R. S. Scholes, G. M. Mace, M. Moilanen, L. S. Brown, N. B. Jones, A. L. Lauenroth, & J. L. Thompson

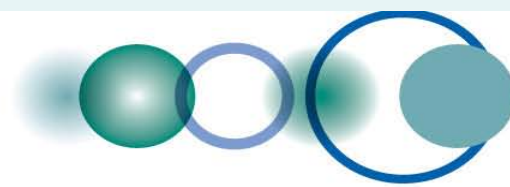
Biodiversity is a complex term used to describe the variety of genes, traits, species, communities, processes, and interactions of organisms at all scales and levels of organization. It is a complex, multi-scale, multi-level, and multi-disciplinary concept. The concept of biodiversity is often used to describe the variety of life forms and the interactions between them. The concept of biodiversity is often used to describe the variety of life forms and the interactions between them. The concept of biodiversity is often used to describe the variety of life forms and the interactions between them.

22 AUGUST 2008 VOL 321 SCIENCE www.sciencemag.org

Scholes et al., **Science** 22 Aug 08,
Towards a Global Biodiversity Observing System

EARTH OBSERVATIONS

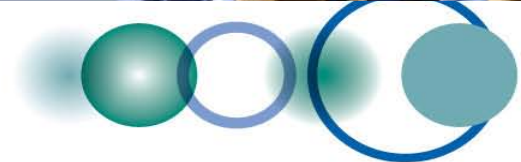
Observation Network



What will GEO BON do?

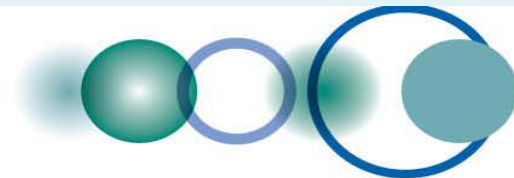
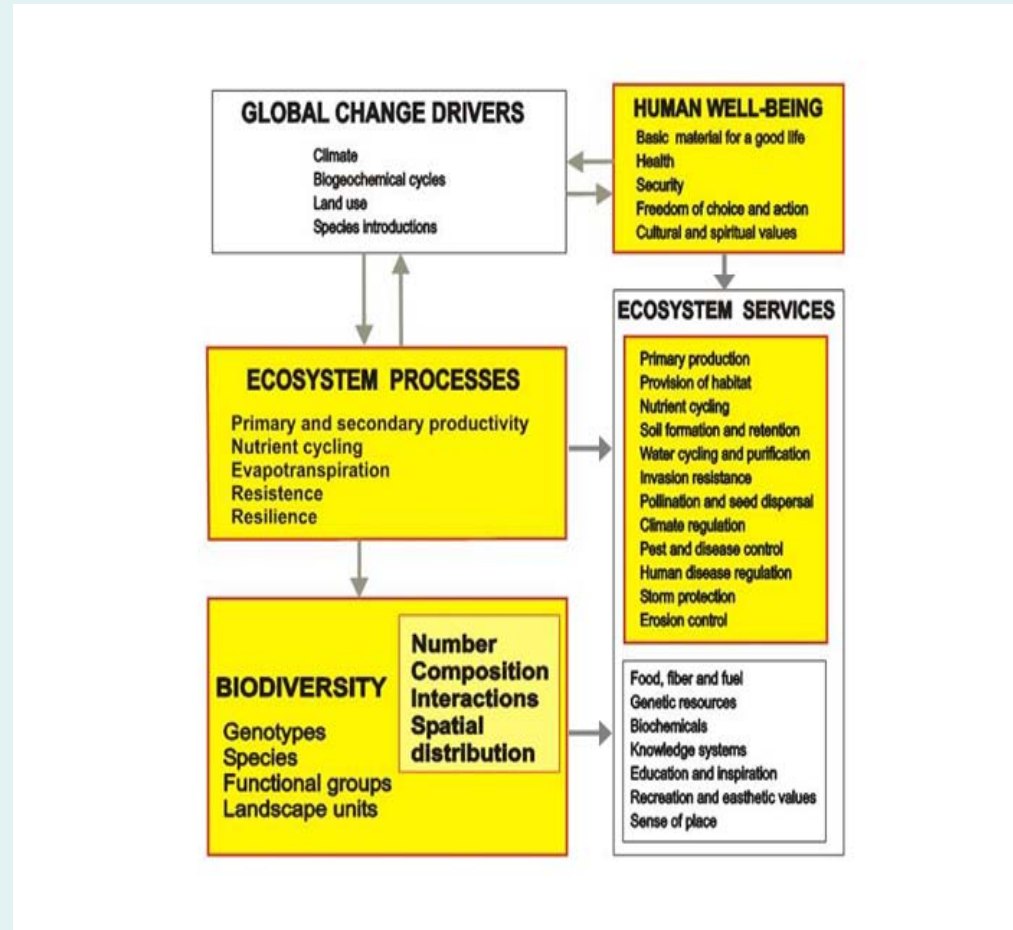
GEO BON will **add value** to the many on-going activities by:

- Providing a global, **scientifically robust** framework for observations on the detection of biodiversity change
- Coordinating the data gathering and the delivery of information
- Ensuring long term continuity of data supply (**operational observations**)
- Providing a set of innovative and relevant -global- **products**



Basic questions

- What is changing?
 - Identifying, quantifying, mapping
- Why is it changing? (drivers)
 - Identifying, quantifying, mapping
- What are the impacts?



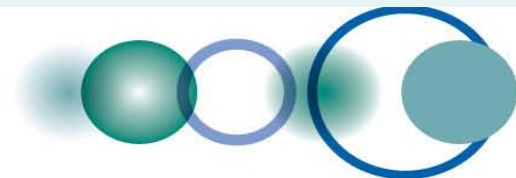
Focal areas

- Ecosystems
- Species
- Genes
- Ecosystem goods, services & functions



Who will the beneficiaries of GEO BON be?

- Parties (countries) to international treaties - CBD (2020 targets), CCD, CITES, Ramsar, CMS, etc.
- Biodiversity conservation organisations
 - UNEP-WCMC, IUCN, CI, WCS, TNC, etc.
- National conservation agencies and biodiversity custodians (govts)
- Scientists
- Society as a whole = Parties to GEO, CBD, etc.

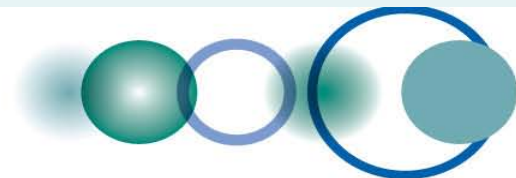




GEO BON & the CBD



- **Decision CBD-COP9 (Bonn, May 2008)**
Notes the initiation of a Biodiversity Observation Network, ... and the development of an implementation plan for the network, ... and invites Parties, other Governments, relevant organizations, scientists and other relevant stakeholders to support this endeavour;
- **Suggested recommendation CBD-SBSTTA14 (May 2010)**
Recognizes the need to continue strengthening our ability to monitor biodiversity at all levels including ... through participation in, and support to the GEO BON...





THANK YOU!



<http://www.earthobservations.org/>

