

Towards a biodiverse future Earth

Anne-Hélène Prieur-Richard SSC-GWSP meeting 1-3 October, 2012, IIASA, Austria



Biodiversity science-policy interface

We wanted and the second second second





- Observation GEO BON
- Science
- Assessment IPBES
- Policy
- The way forward



Observation: GEO BON



The Group on Earth Observations (GEO)

 An Intergovernmental Organization with 86 Members and 61 Participating Organizations (2003)

GEOSS



GEO BON: Global partnership to help collect, manage, analyse & report data relating to the status of the world's biodiversity



Biodiversity Observation Network



GEO BON & freshwater



- Working group on freshwater biodiversity
 - Co-Chairs: I Harisson, E Turak
 - Global Wetland Observing System (GWOS)
 - Mandate from Ramsar
 - Draw on collaboration, data, and analyses from relevant earth observation programmes and agencies, MEA and other sources
 - Include elements of a web-based inventory meta-database
 - Serve to support Ramsar's effectiveness indicators for status and trends of ecosystem extent



Biodiversity Observation Network





- Observation GEO BON
- Science
- Assessment IPBES
- Policy
- The way forward





photos: www.dawide.com

Future Earth Research for global sustainability



Published & launched at PuP





Available online at www.sciencedirect.com

SciVerse ScienceDirect

Environmental Sustainability

Biodiversity and ecosystem services science for a sustainable planet: the DIVERSITAS vision for 2012–20

Anne Larigauderie¹, Anne-Hélène Prieur-Richard¹, Georgina M Mace², Mark Lonsdale³, Harold A Mooney⁴, Lijbert Brussaard⁵, David Cooper⁶, Wolfgang Cramer⁷, Peter Daszak⁸, Sandra Díaz⁹, Anantha Duraiappah¹⁰, Thomas Elmqvist¹¹, Daniel P Faith¹², Louise E Jackson¹³, Cornelia Krug¹, Paul W Leadley¹⁴, Philippe Le Prestre¹⁵, Hiroyuki Matsuda¹⁶, Margaret Palmer¹⁷, Charles Perrings¹⁸, Mirjam Pulleman⁵, Belinda Reyers¹⁹, Eugene A Rosa²⁰, Robert J Scholes²¹, Eva Spehn²², BL Turner II²³ and Tetsukazu Yahara²⁴

DIVERSITAS, the international programme on biodiversity science, is releasing a strategic vision presenting scientific challenges for the next decade of research on biodiversity and ecosystem services: "Biodiversity and Ecosystem Services Science for a Sustainable Planet". This new vision is a ¹⁶ Yokohama National University, Faculty of Environment & Information Sciences, 79-7 Tokiwadai, Hodogaya-ku, Yokohama, Kanagawa 240-8501, Japan

¹⁷ National Socio-Environmental Synthesis Center, University of Maryland, 1 Park Place, Suite 300, Annapolis, MD 21401, USA ¹⁸ Annapolis, MD 21401, USA



Biodiversity & ecosystem services science for a sustainable planet



- Challenge 1: Identify urgent detrimental changes in biodiversity & ecosystem services and provide the knowledge to avoid, limit or mitigate such changes
- Challenge 2: Enhance the capacity of socio-ecological systems to support biodiversity & ecosystem services under global change
- Challenge 3: Develop the knowledge base on the use and conservation of biodiversity to sustain ecosystem services and human well-being
- Challenge 4: Build a global network of biodiversity science





- Observation GEO BON
- Science
- Assessment IPBES
- Policy
- The way forward





Some history...



Informal Consultation 2005-08

Formal Consultation 2008-2010

- International mechanism of scientific expertise on biodiversity (IMOSEB)
- MA Follow-Up Initiative
- MA Follow-Up Initiative merges with IMoSEB: IPBES
- **1**st ad-hoc intergovernmental and multi-stakeholder meeting on IPBES (Putrajaya, 2008)
 - 2nd ad-hoc intergovernmental and multi-stakeholder meeting on an IPBES (Nairobi, 2009)
- 3rd and final ad-hoc intergovernmental and multi-stakeholder meeting on IPBES (Busan, 2010)
- UN General Assembly decision (Dec. 2010)

Design 2011-12

- Implementation Starting 2012
- Design of IPBES (Plenary, Nairobi Oct. 11, Panama Apr. 2012)
- Launch of IPBES (Apr. 2012, Panama)
 - Implementation of IPBES
 - Inter-sessional work
 - 1st Plenary (2013)

What did happen in 2011-2012?



ICSIL leads the scientific community in the Science & Technology

BES, its ost

Institution(s) and nost country

- 2nd session of the plenary (16-21 April 2012, Panama)
 - Selection of the Secretariat: Bonn, Germany
 - Agreement on major principles and procedures governing the work of IPBES and its governance structure (MEP)
 - Official launched



IPBES will have 4 functions



So what happens now?



- First IPBES Plenary, 21-26 Jan. 2013
- Inter-sessional work
 - Administrative issues: Joint United Nations proposal for institutional hosting; Rules of procedure for meetings of the Platform's Plenary; Interim secretariat management
 - How the Multidisciplinary Expert Panel would be structured?
 - Preparations for an initial work programme: overview of assessment; conceptual framework; capacity building; scoping process for selecting assessment themes; requests from governments
 - Nomination of the Multidisciplinary Expert Panel





- Observation GEO BON
- Science
- Assessment IPBES
- Policy
- The way forward



Contributing to Rio+20

- Ahead of Rio
 - Planet under Pressure Conference
 - Policy brief on biodiversity and ecosystem services (Diaz *et al.* 2012)
 - Cardinale et al. 2012 Nature
- In Rio
 - S&T Forum: Biodiversity session (UNESCO-DIVERSITAS-ICSU-STAP)
 - Input to the Rio declaration: « The Future we want »
- Post Rio
 - Langlois et al. 2012 EcoHealth

RIO+20 United Nations Conference on Sustainable Development



challenges and solutions

20 POLICY RRIFF

Biodiversity and ecosystems for a planet under pressure

DIVERSITAS and CBD



- Mandate to prepare the scenario chapter of GBO-4 (with UNEP-WCMC)
- Mandate to GEO BON
 - Adequacy report: evaluation of existing observation capabilities
 - Essential Biodiversity Variables (EBVs): relatively small number of EBVs necessary to derive the CBD operational indicators
- Involvement in work on Strategic Plan for Biodiversity (20 targets for 2020; AHTEG on indicators)
- Other topics: mountain biodiversity, climate change, Global Taxonomy Initiative, health, inland water













- Observation GEO BON
- Science
- Assessment IPBES
- Policy
- The way forward



Preparing for Future Earth



- Research topics
 - Socio-ecological scenarios (GBO-4)
 - GWOS
 - Activities related to Global threats project
 - Global change scenarios and FW related ecosystem services
 - Inland fishing pressure
 - Synthesis (Belmont proposal)
- Belmont Forum future calls
 - 2013: Food security and landuse change; Artic; E-infrastructure
 - 2014 (TBC): Biodiversity & ecosystem services (IPBES); Climate services (WMO); Green growth; Peri-urban systems





Thank you !

<u>www.diversitas-international.org</u> <u>anne-helene@diversitas-international.org</u>





AquaBase



- Biophysical basis of aquatic ecosystem services
- To inform restoration and conservation policies

