



Scenarios and Models in IPBES Assessments

Paula Harrison

*UK Centre for Ecology & Hydrology
Co-chair of IPBES Nexus Assessment
Member of IPBES Scenarios and Models
Taskforce*

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■ What is IPBES?



Introduction to IPBES

Intergovernmental science-policy Platform on Biodiversity and Ecosystem Services

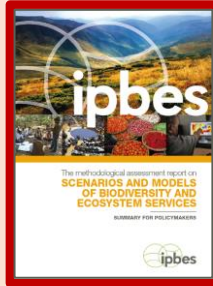
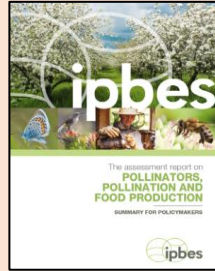
IPBES's mission:

To strengthen knowledge foundations for better policy through science, for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development.

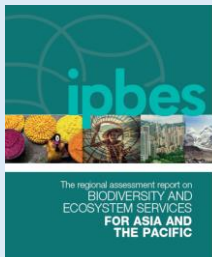
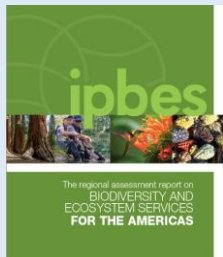
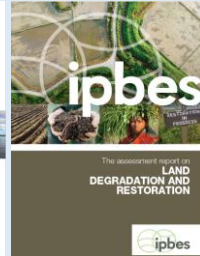
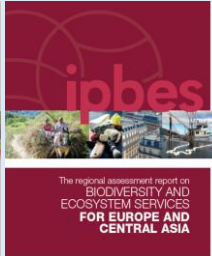
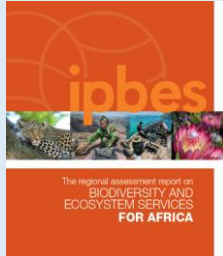
- An independent intergovernmental body, established in 2012 by Governments, with currently **139** members
- Similar to the IPCC, but with a focus on biodiversity
- IPBES has completed its first work programme (2014-2018)
- IPBES has approved its next work programme (2018-2030)

Establishing the knowledge base for decision making: 10 assessments produced

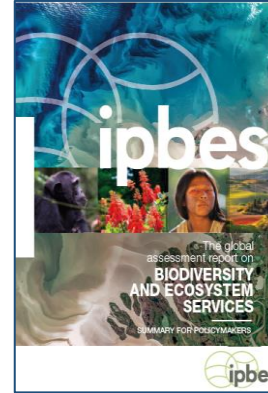
2016



2018



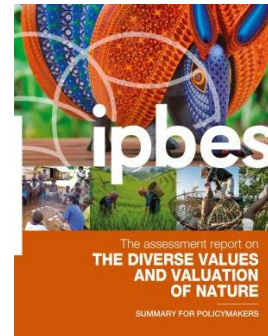
2019



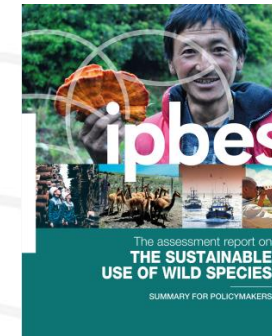
2021



2022



2023



Invasive
alien
species
Assessment

New IPBES Assessments



Nexus Assessment

Thematic assessment of the interlinkages among biodiversity, climate change, water, food and health



Transformative change assessment

Thematic assessment of the underlying causes of biodiversity loss and the determinants of transformative change and options for achieving the 2050 Vision for Biodiversity

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The IPBES Nexus Assessment

*based on the approved Scoping Report

www.ipbes.net

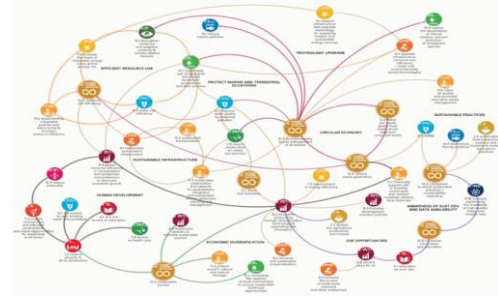


The Nexus Assessment

- Assess the interlinkages among biodiversity, water, food and health, with a focus on biodiversity and nature's contributions to people, to inform the development of policies and actions.
- All chapters will highlight opportunities, synergies and trade-offs between nexus elements in terms of broadly defined social, economic, and environmental impacts, as well as thresholds, feedback and resilience in nexus linkages.
- The assessment will assess and synthesize diverse types of knowledge (including indigenous and local knowledge), be global in scope (highlighting and interpreting regional and subregional similarities and differences), and will include terrestrial, freshwater and marine systems.
- Consists of 7 chapters + Summary for Policy-Makers.

Chapter 1: Introducing the nexus

- Definitions, Conceptual framework, Policy relevance, Roadmap to the sequence of chapters in the assessment.



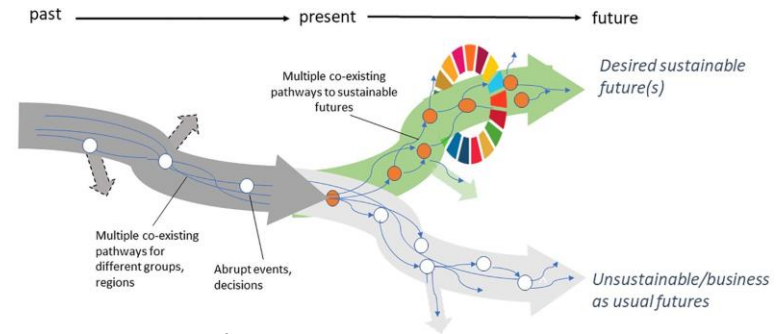
Chapter 2: Status and past trends of interactions in the nexus

- Focus on current status and recent past trends in the nexus.
- Describes and assesses nexus interactions, quantitatively when possible, in terms of their environmental, social and economic costs and benefits. Includes potential synergies and trade-offs among nexus elements.
- Attributes recent trends in nexus interactions to drivers (direct and indirect), identifying which past actions or policies have affected elements of the nexus relative to the SDGs.



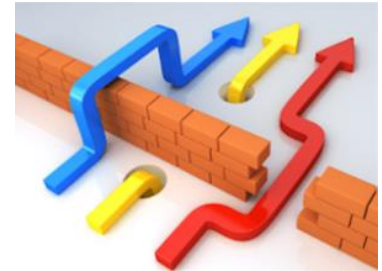
Chapter 3: Future interactions across the nexus

- Focus on integrated scenario and modelling studies that cover nexus interlinkages and their response to direct and indirect drivers of change.
- Includes different types of scenarios (exploratory, policy-screening and target-seeking), and both qualitative and quantitative projections.
- Focus on 2050 (and 2030), but longer timeframes can be considered.
- Includes scenarios that are both positive and negative for biodiversity and people, but with greater focus on sustainable futures.
- Link to policy goals, such as SDGs and other relevant policy frameworks.



Chapter 4: Policy and sociopolitical options across the nexus that could facilitate and accelerate the transition to a range of sustainable futures

- Focus on the broad range of response options for achieving sustainable futures, including linking to the transformative change assessment.
- Includes role of different economic and financial, technical and technological, social, institutional, cultural and behavioural factors in facilitating or obstructing pathways to sustainable futures.
- Provides an overview of the range of actors involved across the nexus and the relationships between them.
- Provides an overview of integrative tools that support nexus thinking.



Chapter 5: Options for delivering sustainable approaches

- Assesses the potential for different sets of actors to create the changes identified in Chapter 4.
- Structured into sub-sections focused on actors in different policy sectors, but from a **holistic multi-sectoral and multi-dimensional view**.
- Includes assessment of response options that require individual & collective action AND **joint action by multiple sectors**.
- Assesses environmental, social and economic costs and benefits of options, including prioritisation and impacts of inaction.

5.1 water

5.2 food systems

5.3 health

5.4 biodiversity conservation

5.5 climate change
adaptation & mitigation



Chapter 6: Options for ... public and private finance for biodiversity-related elements of the nexus

- Assesses response options that can be implemented by actors in the financial sector to create the changes outlined in Chapter 4, and the funding for options from Chapter 5.
- Includes market and non-market economic instruments, and economic transformations, that enhance nexus and holistic approaches.



Chapter 7: Synthesis of options, knowledge and technology gaps

- Technical summary focused on response options across Chapters 4, 5 and 6; complementary to the Summary for Policy-Makers.
- Knowledge gaps, governance gaps, future research needs.



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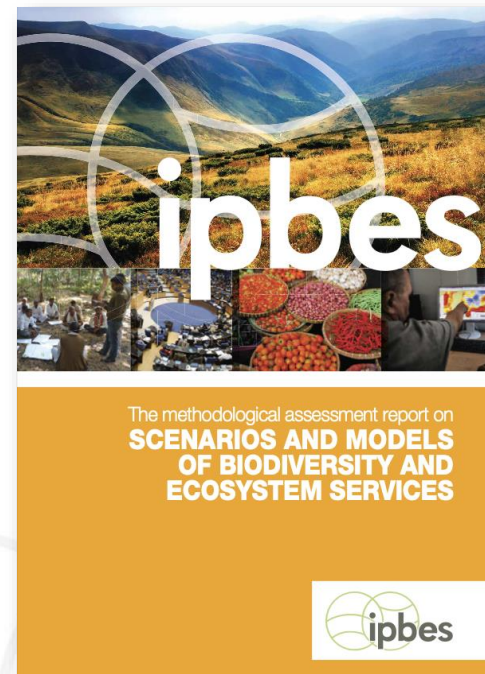
New IPBES biodiversity-centred scenarios



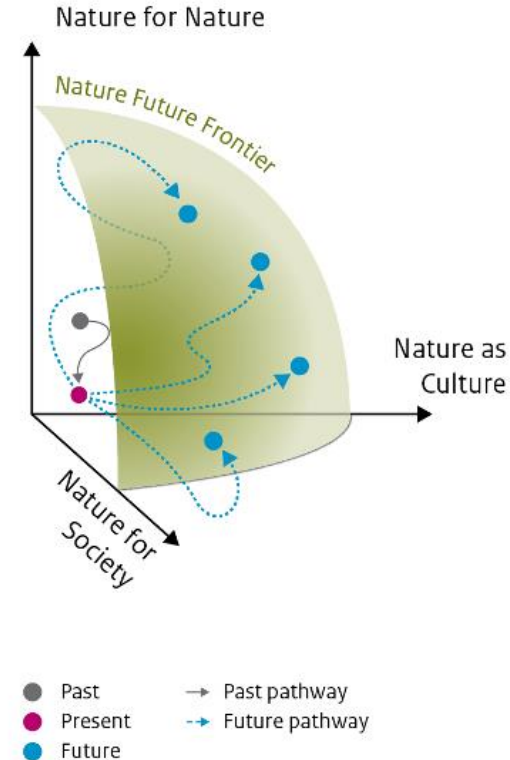
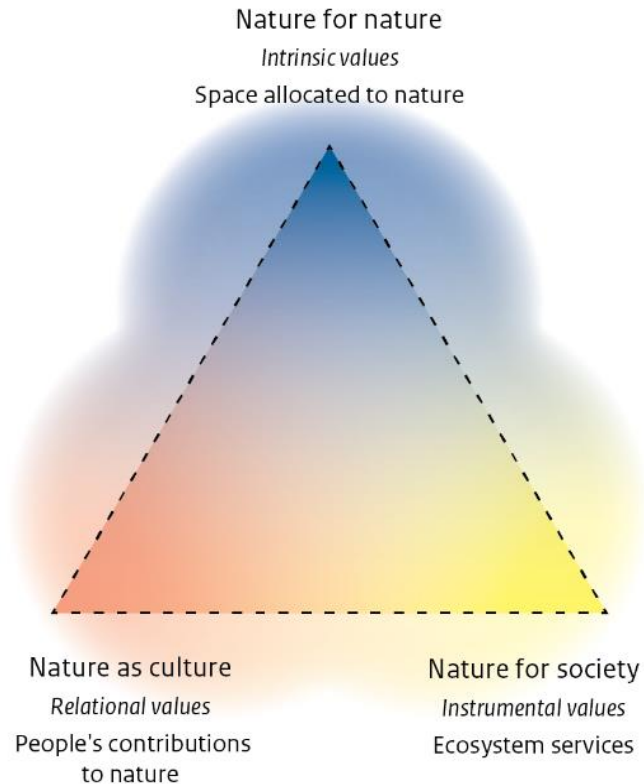
Scenario challenges identified

Scenarios are available and they are useful tools for policy support, but:

- Most global scenarios are developed for other purposes, e.g. climate change and its impacts
- Few scenarios detail 'positive' futures
- Most global scenarios lack a participatory approach
 - As a result, most global scenarios are limited to assessing only impacts on nature, and tend to be negative
 - Different policy and management responses relating to nature are often not well represented

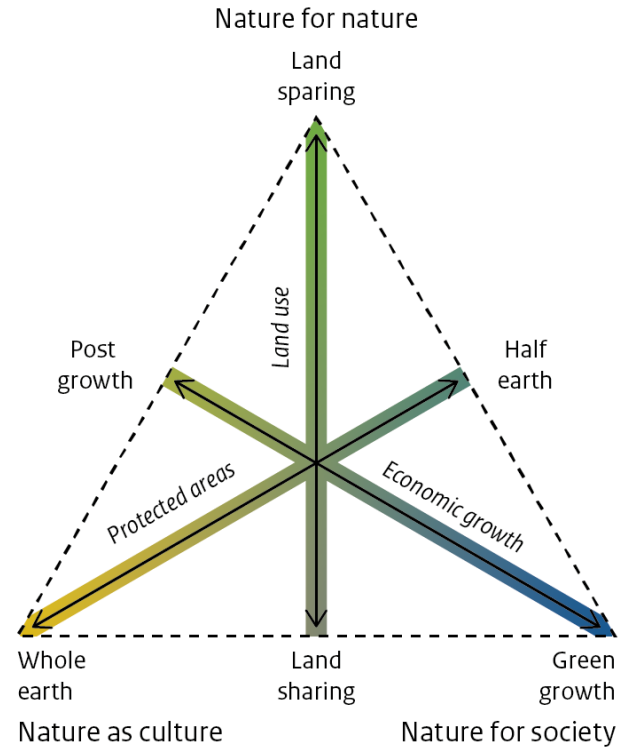
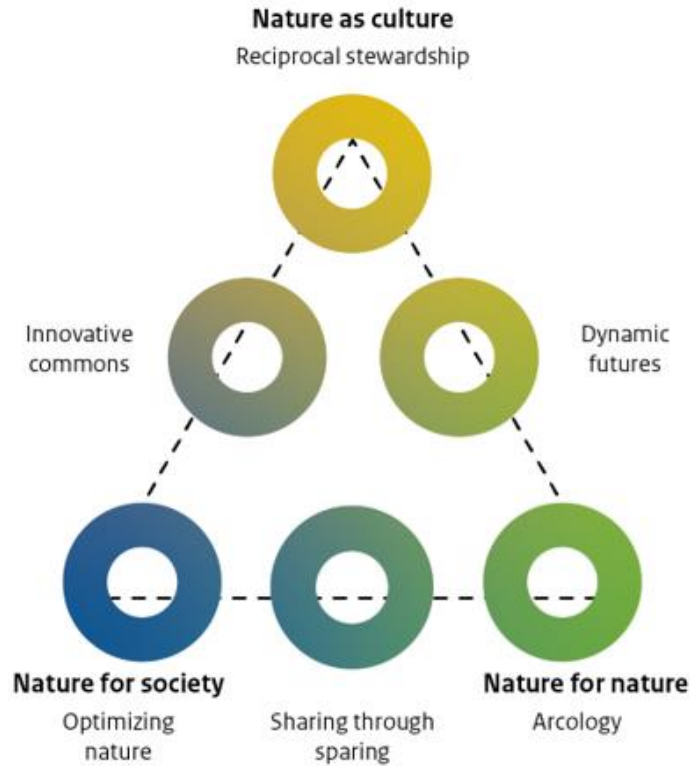


Nature Futures Framework (NFF)



Kim et al. (preprint). SocArXiv:
<https://osf.io/preprints/socarxiv/93sqp/>

NFF Toolbox, inc. illustrative narratives





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Concluding remarks

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- Scenarios and model applications will be useful for several chapters in the Nexus Assessment:
- Chapter 3:
 - Focus on integrated scenario and modelling studies that cover nexus interlinkages and their response to direct and indirect drivers of change
 - Focus on 2050 (and 2030), but longer timeframes can be considered
 - Focus on sustainable futures
- Chapters 4, 5 & 6:
 - Scenario and modelling studies focused on response options
- Will consider all types of scenarios and models, but use of NFF is welcomed where appropriate.
- **Cut-off date for publications is likely to be late summer/early autumn 2023!**



Thank you!
Gracias!
Merci!



IPBES Secretariat, UN Campus
Platz der Vereinten Nationen 1, D-53113 Bonn, Germany
secretariat@ipbes.net

    
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