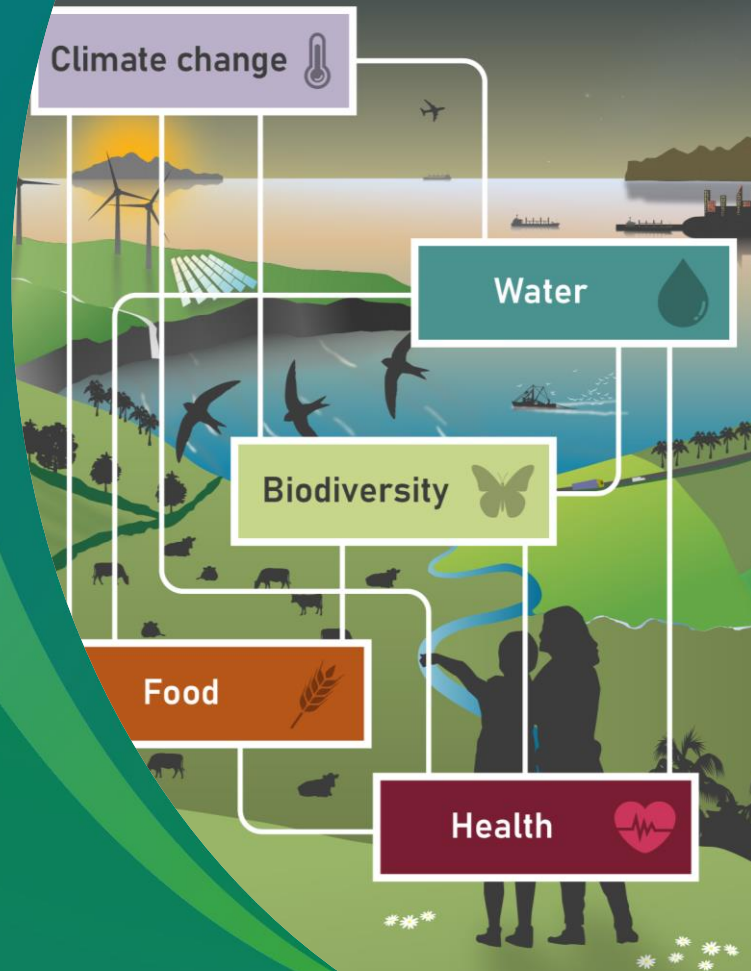


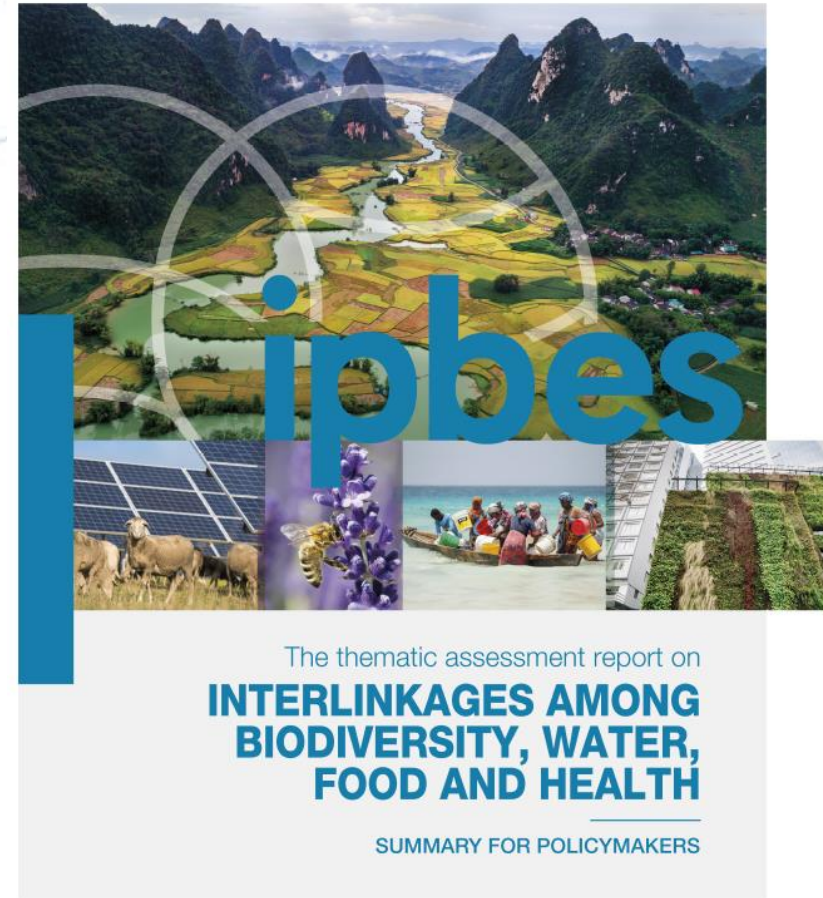
IPBES Nexus Assessment and related scenarios

Professor Paula Harrison
IPBES Nexus Assessment Co-chair



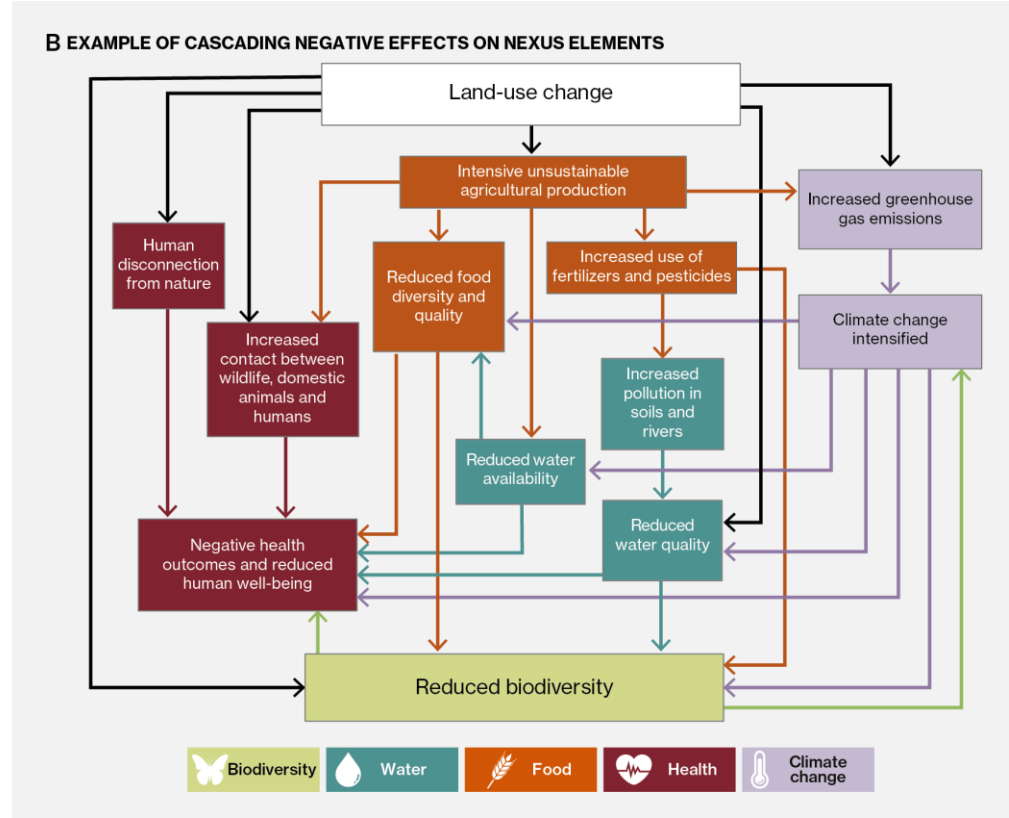
IPBES Nexus Assessment

- 5 crises are interlinked
 - Our responses are not
- Solutions already exist
 - > 70 response options assessed
- Role for everyone
 - Collaboration required



Biodiversity, climate, water, food and health crises interact, cascade and compound each other






- Increasing trends in some indirect drivers have amplified trends in direct drivers of biodiversity loss and caused negative cascading impacts on nexus elements
- Current efforts have failed to address these crises because they are fragmented, don't account for underlying causes and work in isolation
- Evidence shows that biodiversity is essential for water, food, health and climate, yet is declining in all regions



Nexus-wide benefits with positive outcomes for people and nature are feasible in the future

- Continuation of current trends in direct and indirect drivers will result in substantial negative outcomes for biodiversity, water, food, and health while exacerbating climate change






A PROJECTED FUTURE IMPACTS ON THE NEXUS ELEMENTS

Nexus archetype	Nexus element					Impacts on each nexus element under each nexus archetype
	Biodiversity 	Water 	Food 	Health 	Climate 	
1. Nature-oriented nexus	▲▲▲	▲▲	▲	▲	▲▲	▲▲▲ Highly positive
2. Balanced nexus	▲	▲	▲▲	▲▲	▲	▲▲ Moderately positive
3. Conservation first	▲▲	~	▼▼	~	▲	▲ Slightly positive
4. Climate first	▼	~	▼▼	▲	▲▲	~ Variable
5. Food first	▼▼	▼	▲▲	▲	▼▼	▼ Slightly negative
6. Nature overexploitation	▼▼	~	▼▼	▼	▼▼	▼▼ Moderately negative
						▼▼ Highly negative

Nexus-wide benefits with positive outcomes for people and nature are feasible in the future

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- Scenarios that prioritize a single nexus element without regard to other elements result in trade-offs across the nexus

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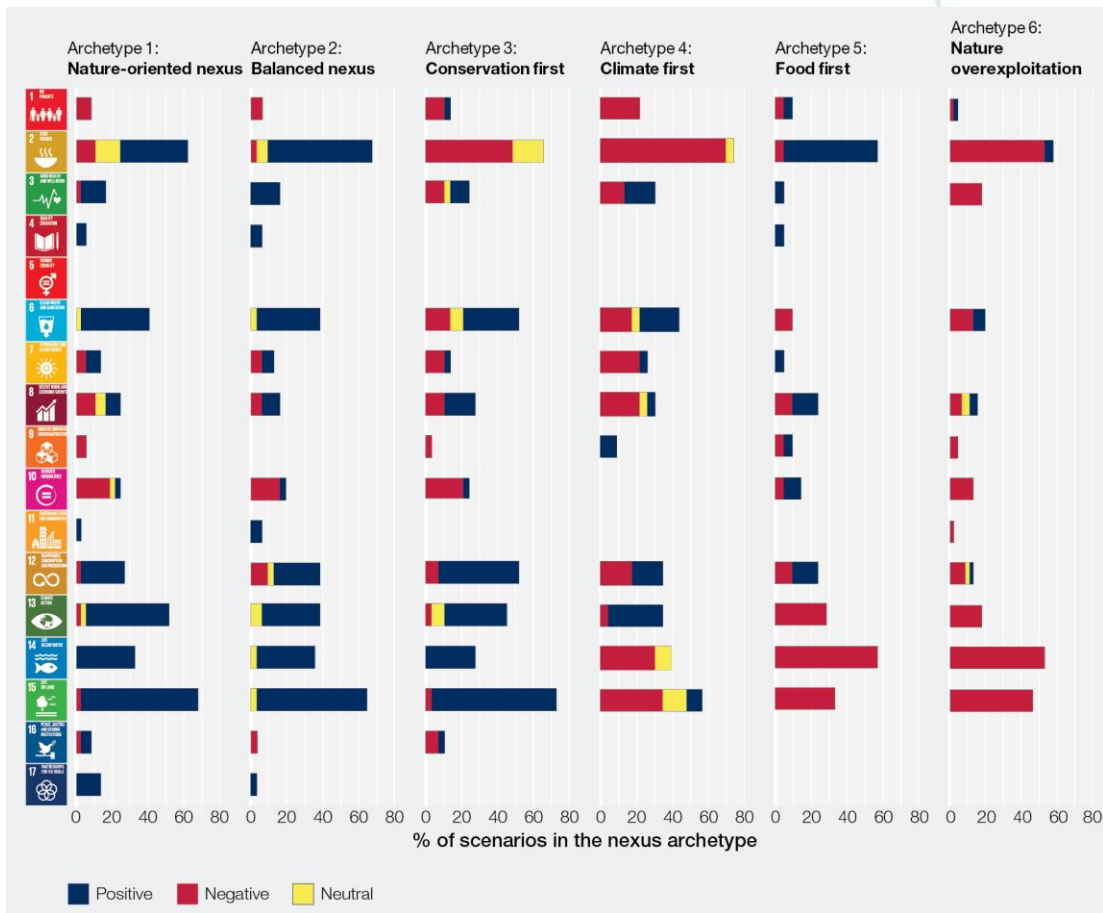
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- Positive outcomes for people and nature are feasible and include integrated and timely adoption of multiple response options

A PROJECTED FUTURE IMPACTS ON THE NEXUS ELEMENTS

Nexus archetype	Nexus element					Impacts on each nexus element under each nexus archetype
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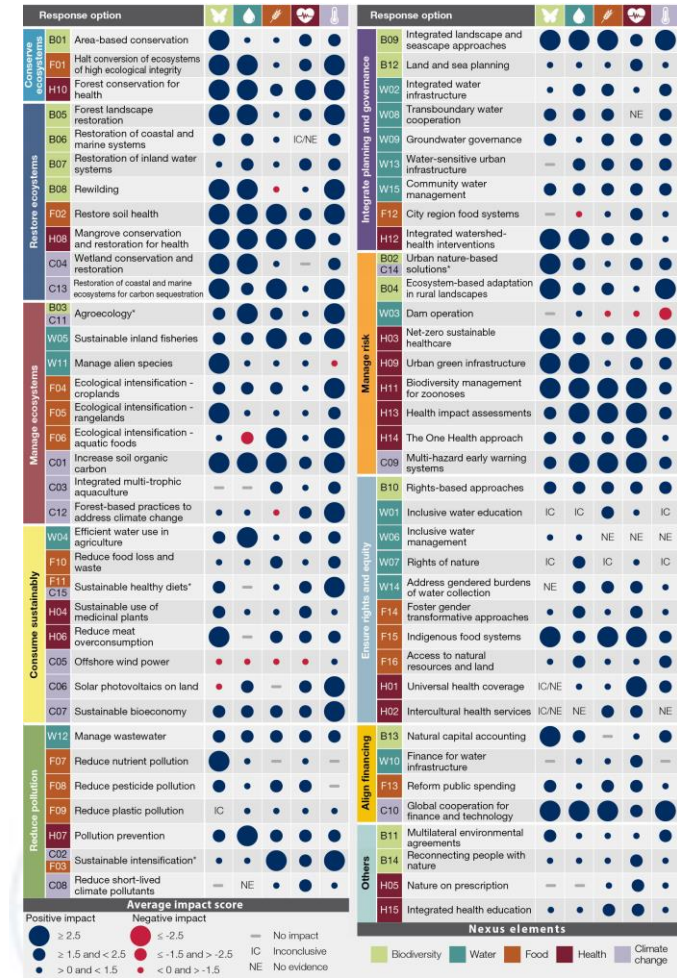
Scenarios that positively impact biodiversity and the other nexus elements have more beneficial outcomes for the SDGs

Manage risk

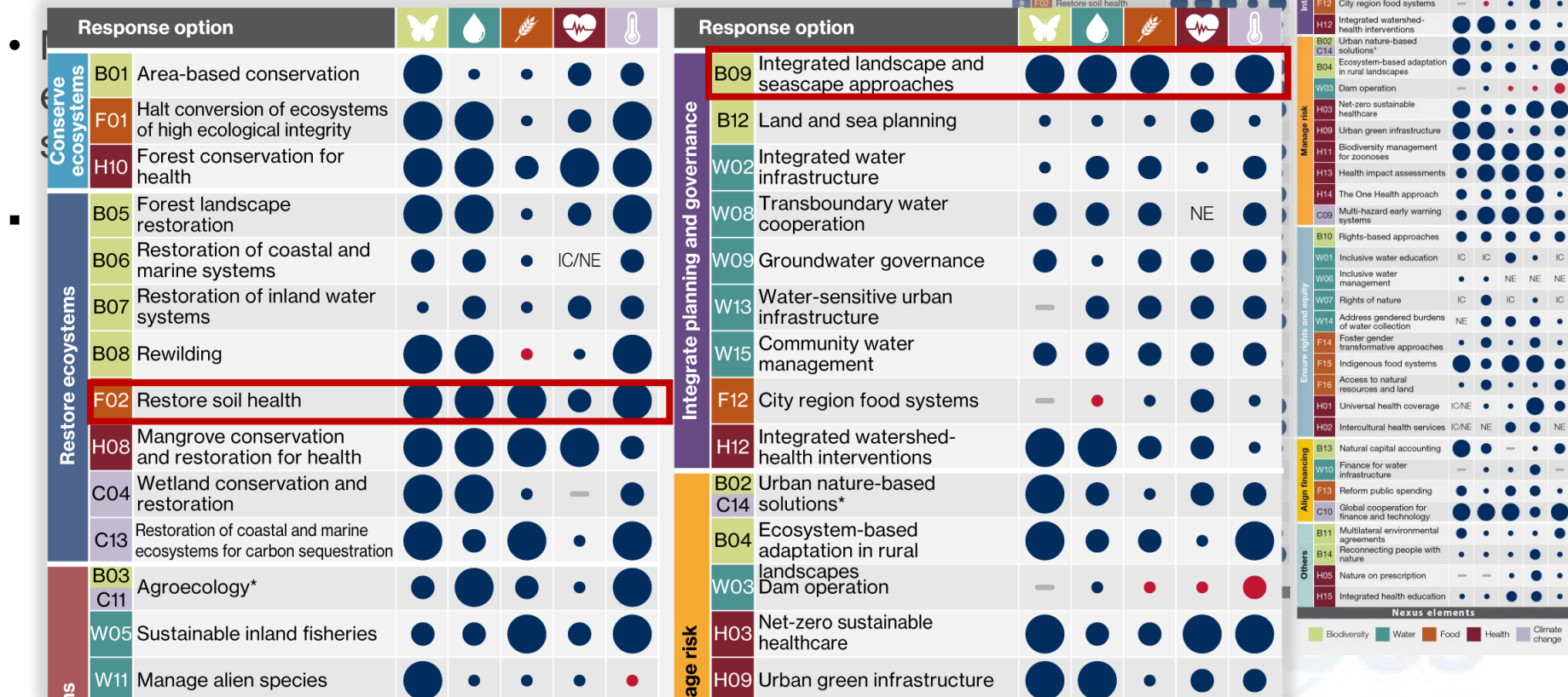


Many response options have benefits across multiple nexus elements

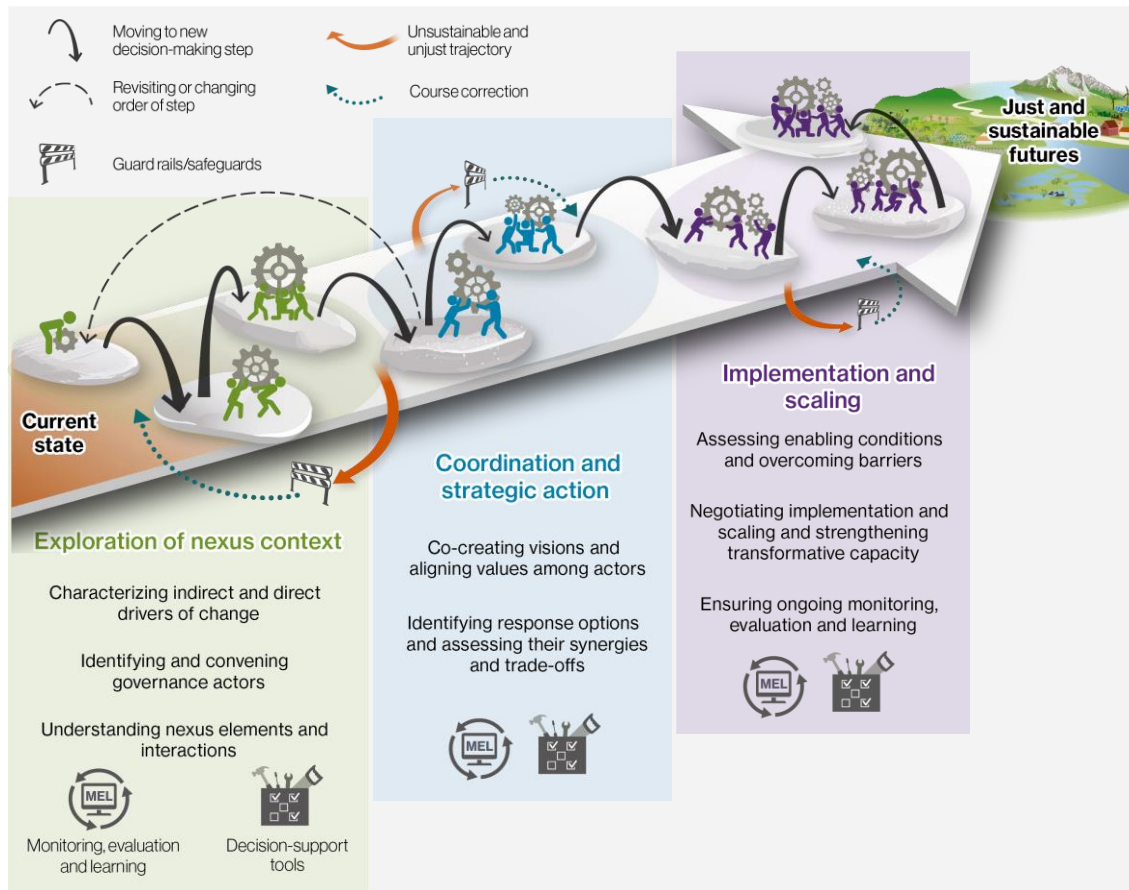
- Many response options benefit multiple nexus elements when implemented at appropriate scales and accounting for context
- Examples include:
 - Restoring carbon-rich ecosystems, such as forests, soils and blue carbon
 - Urban green infrastructure that uses nature to provide health, water and climate co-benefits
 - Choosing sustainable healthy diets



Many response options have benefits across multiple nexus elements



Everyone has a role to play in implementing nexus approaches



Roadmap of nexus action




Conclusions – nexus assessment

- Urgent action is needed to tackle our interlinked crises
- The nexus assessment provides decision-makers with the best-available evidence on the interlinkages among biodiversity, water, food, health and climate change
- A wide range of response options are available now for tackling our crises together. Increased financial support and scaling these out will be crucial
- Evidence and tools are available, including scenarios and models on the interlinkages among biodiversity, water, food, health and climate change to support decision-makers in developing integrated decisions and actions
- This includes guidance on how economic, financing and governance systems can evolve towards holistic and integrated approaches
- It recognizes the role different actors have in addressing global crises challenges and ensuring more just and sustainable outcomes for people and nature
- This inform more integrated decisions and actions to support multilateral agreements (e.g., SDGs, KM-GBF and the Paris Agreement)



IPBES scenario choices

Upcoming IPBES assessments

- **Feb 2026** – Business and biodiversity, IPBES 12 plenary, UK
- **End 2026** – Monitoring biodiversity
- **2027** – Spatial planning and connectivity
- **2028 – 2nd Global assessment** 
- **2029** – To be determined

Deadline for including new publications

is start of the final external review period, unless suggested in the final review



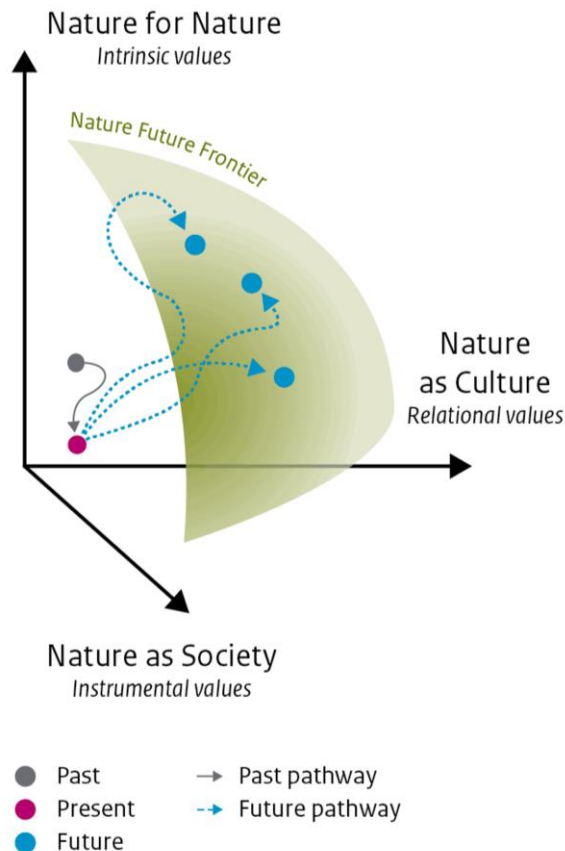
2nd quarter 2027 for GA2

Ch. 4 Future Pathways

- Progress in representing interactions between climate change and biodiversity as well as broader nexus interactions
- Focus on positive and transformative pathways, including applications of the Nature Futures Framework and sustainability-oriented shared socioeconomic pathways
- Urgency and pace of action
- Work representing the perspectives of Indigenous Peoples and local communities and their issues of concern regarding future pathways

Scenarios and models for IPBES (and IPCC)

Developing
transformative
pathways
using the
Nature Futures
Framework



www.bes-sim.org

BIO-FUTURES

DEVELOPMENT OF BIODIVERSITY MODELLING AND SCENARIOS
FOR THE GOALS AND TARGETS OF THE KUNMING-MONTREAL
GLOBAL BIODIVERSITY FRAMEWORK



Bending the Curve 2



Conclusions – scenario & modelling needs

- Modelling tools that better account for **nexus interlinkages** and **cascading effects** from the **full suite of indirect and direct drivers** of environmental degradation
- Scenarios and models that include **feedbacks** from impacts on biodiversity and ecosystem services back to the economy and society
- Potential **surprises**, **critical thresholds** and **uncertainties**
- **Positive scenarios/pathways to sustainable futures** with nexus-wide benefits, including synergies and trade-offs in transformative pathways across social groups and sectors
- Policy implementation scenarios and models **representing multiple response options** and interlinkages among nexus elements to understand how policy targets might be better aligned and achieved (e.g., SDGs, KM-GBF, PA)
- Scenarios and models that provide insight on the **pace of action** needed to halt and reverse biodiversity loss, including the pace and magnitude of the transformative change required to achieve the 2050 vision of living in harmony with nature and the sustainable development goals



Thank you

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For further information:
www.ipbes.net/nexus-assessment



UK Centre for
Ecology & Hydrology