

KEYNOTE SESSION

9:30-11:00

MID-TERM POLICY ACTIONS NEEDED AGAINST BIODIVERSITY CRISIS



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German Advisory
Council on Environment



Prof. Janne Kotiaho
Finnish Nature Panel



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Finnish Parliament

#EEAC30
#CriticalDecade



Medium-term actions needed against the biodiversity crisis

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IPBES
Global Assessment

ipbes



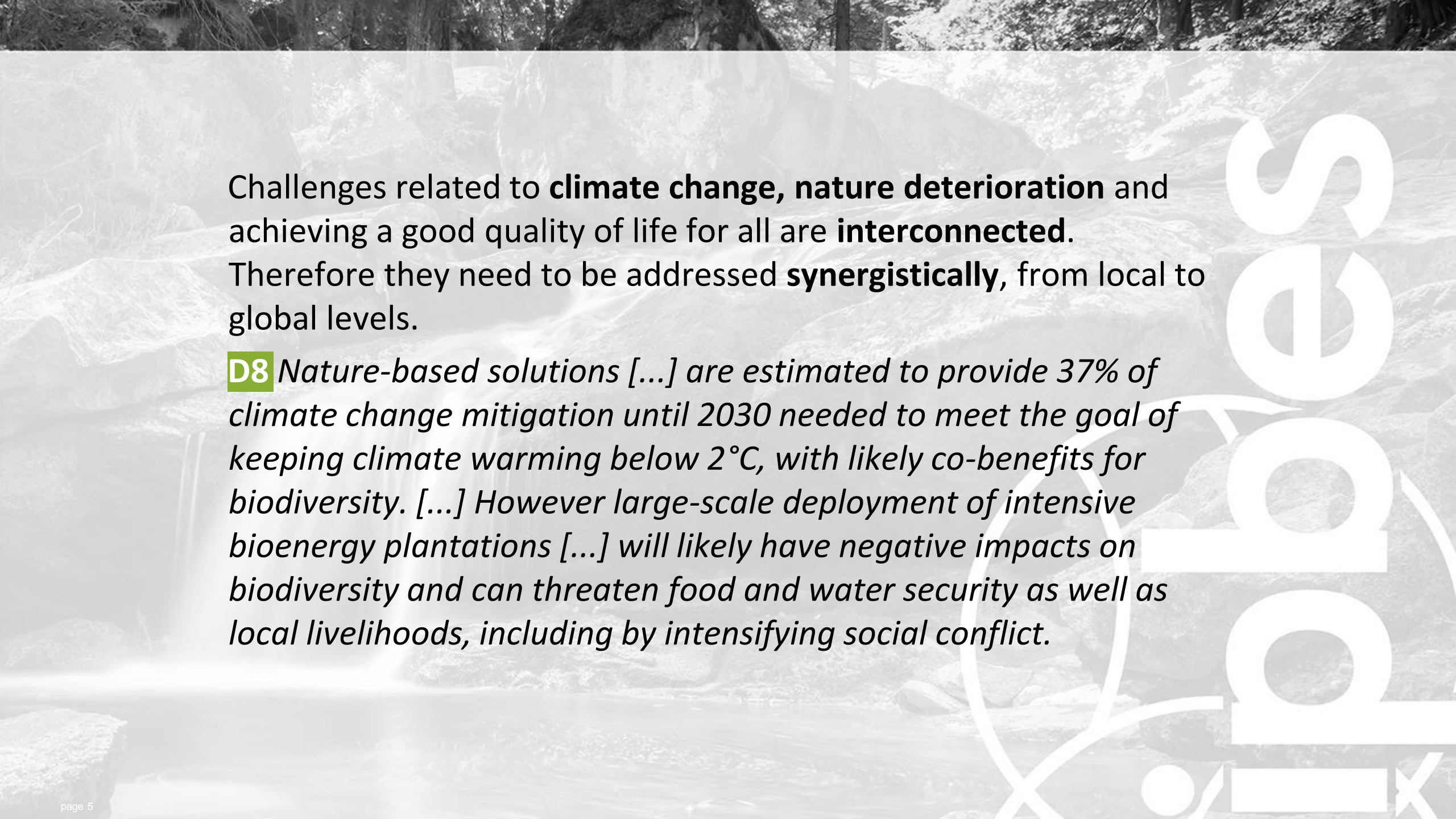
The global
assessment report on
**BIODIVERSITY
AND ECOSYSTEM
SERVICES**

SUMMARY FOR POLICYMAKERS




D6 *Feeding humanity and enhancing the conservation and sustainable use of nature are complementary [...] that can be advanced through sustainable agriculture, aquaculture and livestock systems, the safeguarding of native species, varieties, breeds and habitats, and ecological restoration.*

- promoting sustainable agricultural and agroecological practices;
-
- empowering producers and consumers to transform supply chains; and facilitating sustainable and healthy dietary choices.
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Challenges related to **climate change, nature deterioration** and achieving a good quality of life for all are **interconnected**. Therefore they need to be addressed **synergistically**, from local to global levels.

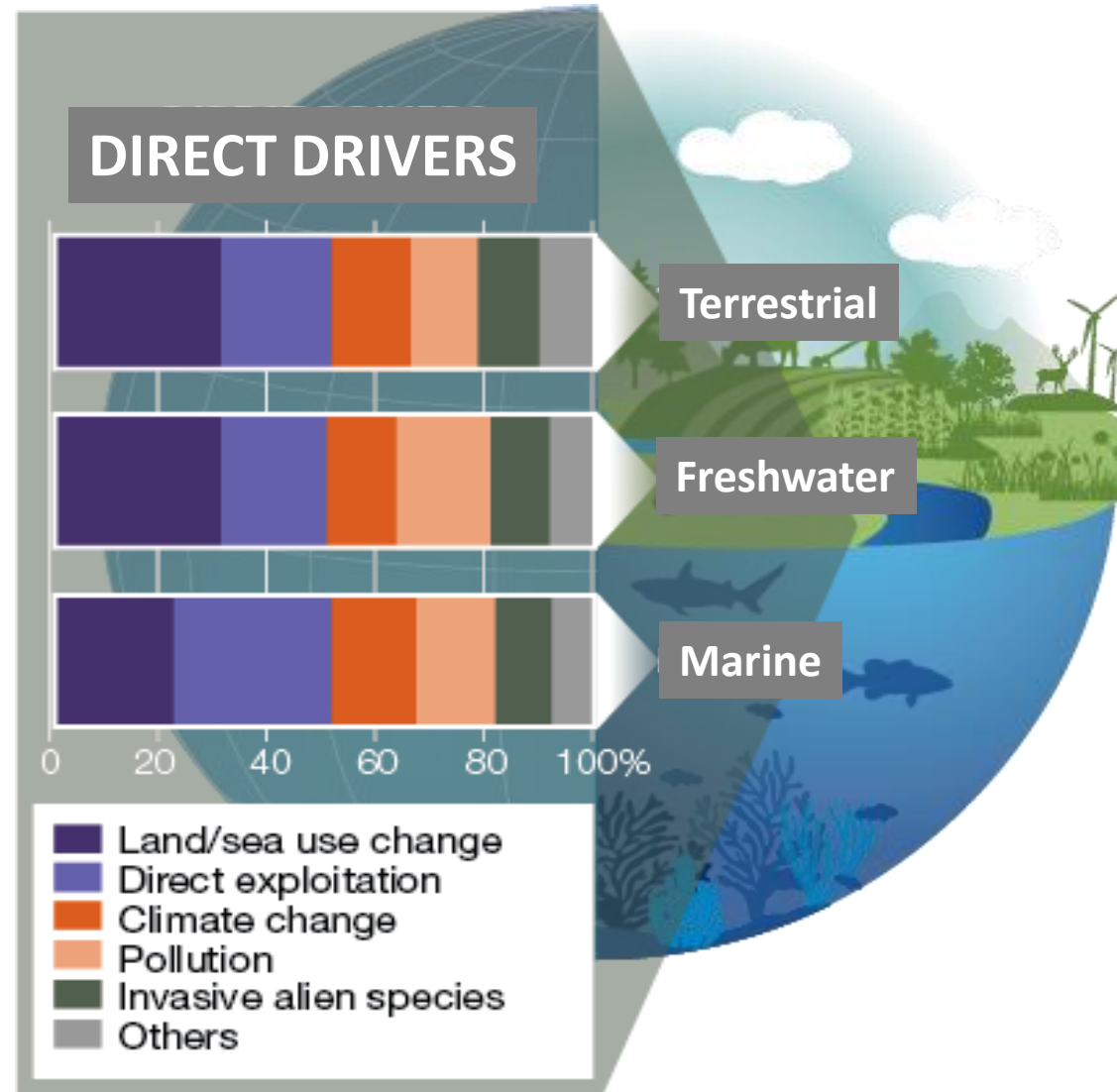
D8 *Nature-based solutions [...] are estimated to provide 37% of climate change mitigation until 2030 needed to meet the goal of keeping climate warming below 2°C, with likely co-benefits for biodiversity. [...] However large-scale deployment of intensive bioenergy plantations [...] will likely have negative impacts on biodiversity and can threaten food and water security as well as local livelihoods, including by intensifying social conflict.*



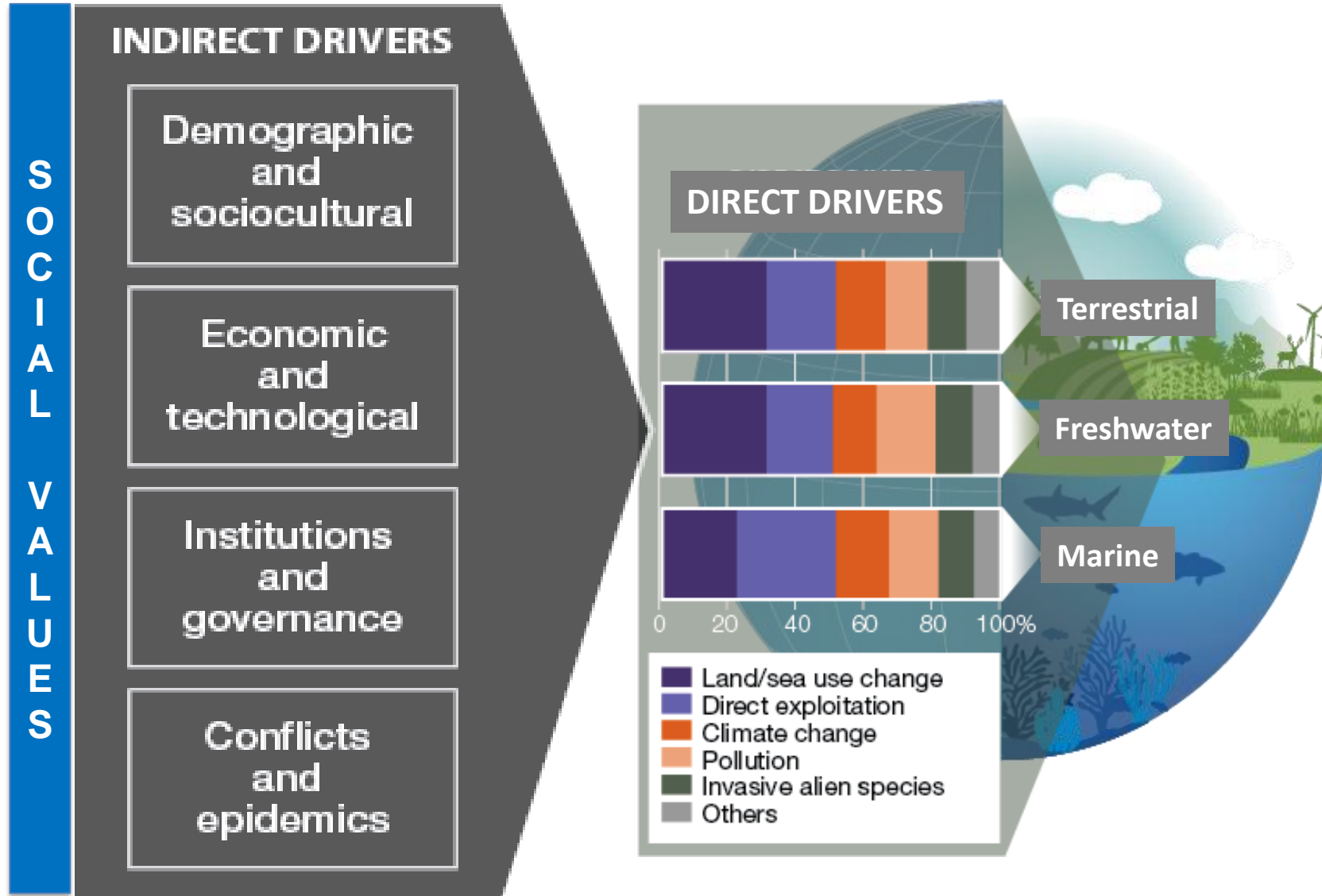
D10 *A key component of sustainable pathways is the evolution of global financial and economic systems to build a global sustainable economy, steering away from the current, limited paradigm of economic growth.*

- 68% of the capital in the soy and beef production and 70% of the capital in the illegal fishing flows through tax havens
- OECD countries subsidize US \$ 100 billion in agricultural production that is not environmentally friendly

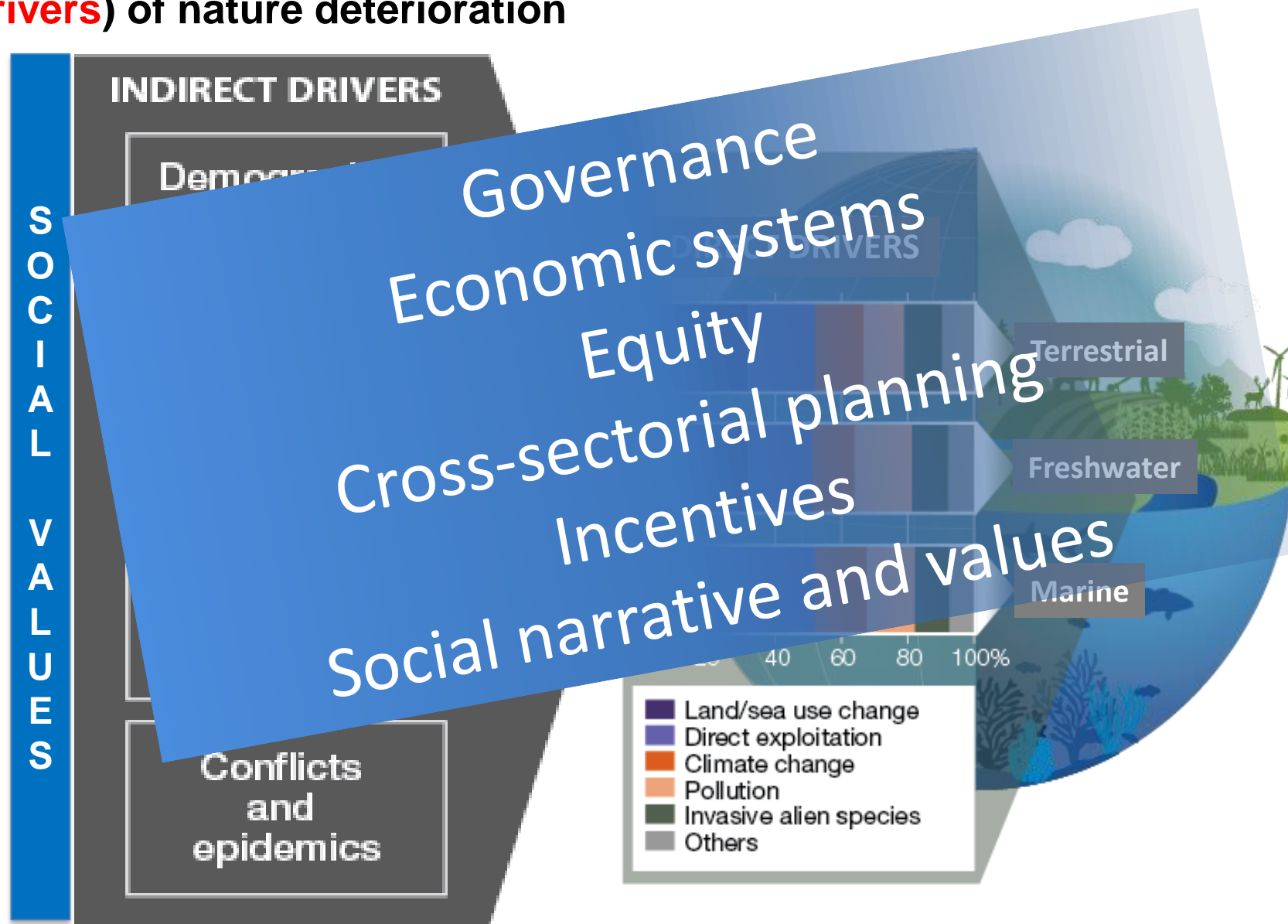
Meeting global societal goals through urgent and concerted efforts addressing **direct drivers** of change, which have accelerated during the past 50 years to levels unprecedented in human history



Meeting global societal goals through urgent and concerted efforts addressing direct drivers and especially the root causes (**indirect drivers**) of nature deterioration



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IPBES-IPCC CO-SPONSORED WORKSHOP







BIODIVERSITY AND CLIMATE CHANGE

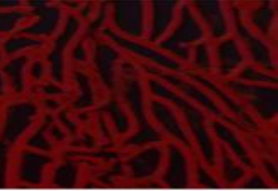
WORKSHOP REPORT



ipcc
INTERGOVERNMENTAL PANEL ON
climate change



 Cultural landscapes in Central Europe		2
		10
Simulate traditional land-use systems; avoid succession and intensification		
	Reduced extinction risks of rare and highly adapted species and/or varieties	
	No climax vegetation thus less C sequestered.; CH ₄ emissions by animal husbandry; tradeoffs crop fields vs forests	
	Maintenance of high diversity of pollinators and natural enemies of pest (i.e., Biocontrol services)	
	Production of high quality food (meat and vegetarian) but trade-off with food quantity; medicinal plants	
	Maintaining options for adaptation to future changes; cultural: sense of place and mental and physical recreation	





Maculinea arion
S-W Germany



Ville Uusitalo is working as an associate professor in sustainability change research group at the LUT University. He has 44 scientific journal publication mainly focusing on environmental sustainability assessment. He is currently working in the BIODIFUL project and leading a work package related to biodiversity impact assessment of products using life cycle approach.



Ville Uusitalo:

Global biodiversity impacts of our consumption

Meat and cheese – high impacts





Irrigated rice terraces and forests in Southeast Asia

1

10

Maintaining forest; avoid application of pesticides



Forest as habitat for rare and endangered species; high agrodiversity for stabilisation of pest pop. at low levels



C sequestration through maintenance of forests; CH₄ emissions through paddy fields



Water source for irrigation; biocontrol of rice pests;



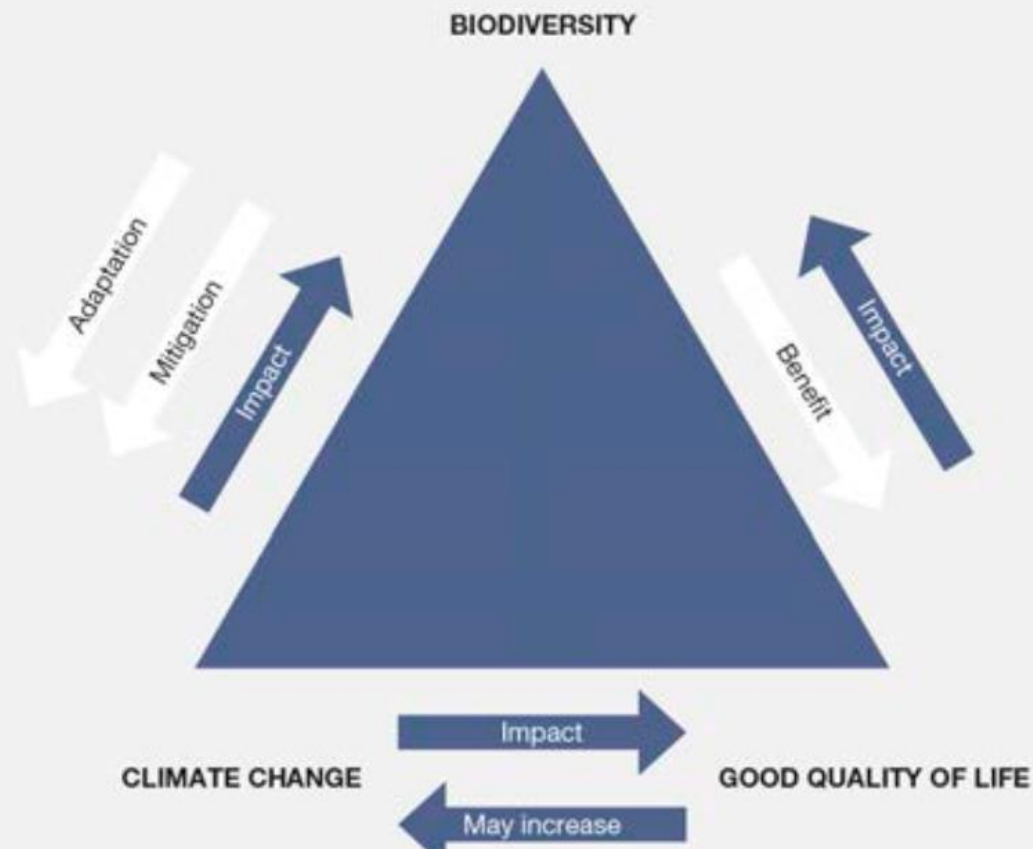
Stabilized food supply; avoidance of chemical pollution



Sense of place, mental and physical recreation; maintenance of traditional customs including arts; high eco-tourism potential

What we need to know and consider ...

1. **The Earth's climate and biodiversity are inextricably connected with each other, and with human futures.** They reinforce each other and therefore cannot be managed in isolation from one another.



Three Intertwined Systems:
The changing Climate
The changing Biosphere
Human society / Quality of life

Climate change exacerbates risks to biodiversity and natural and managed habitats; at the same time, natural and managed ecosystems and their biodiversity play a key role in the fluxes of greenhouse gases, as well as in supporting climate change adaptation.



MERLIN

Mainstreaming restoration of rivers and
wetlands in Europe

Duration: 2021-2025



Task 1

Learning from best-practice

17 restoration case-studies



PEATLANDS
AND WETLANDS



SMALL STREAMS
AND BASINS



LARGE TRANS-
BOUNDARY
RIVERS

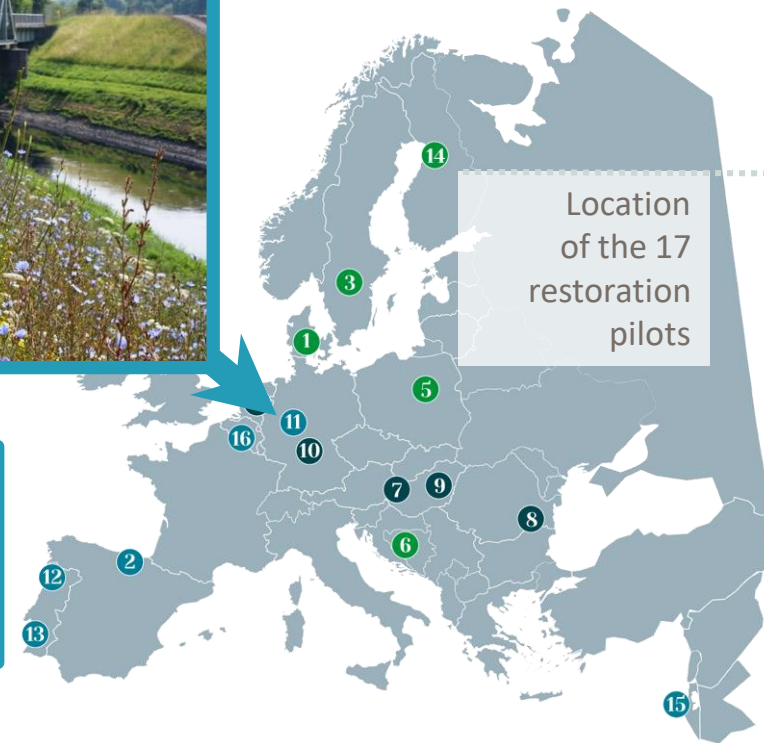
Task 2

Optimizing the existing

Additional measures (examples)



Bio-diverse flower meadows (DE)



Task 4

Creating conducive conditions



Engaging with economic sectors

Seizing green business opportunities



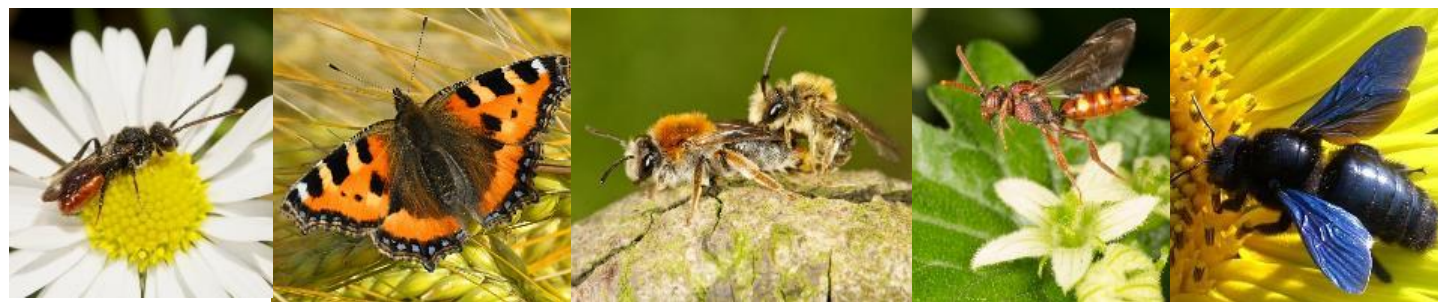


SPRING

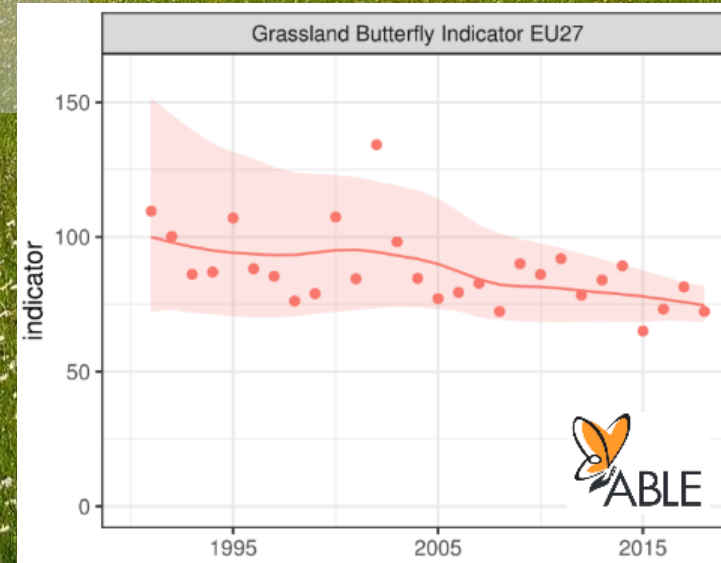
Strengthening Pollinator Recovery through INDicators and monitorinG

represented by

David Roy (UKCEH) & Josef Settele
(UFZ)



- Grassland butterfly indicator
- 17 characteristic grassland butterflies
- Both specialist and widespread species
- 25% decline since 1990



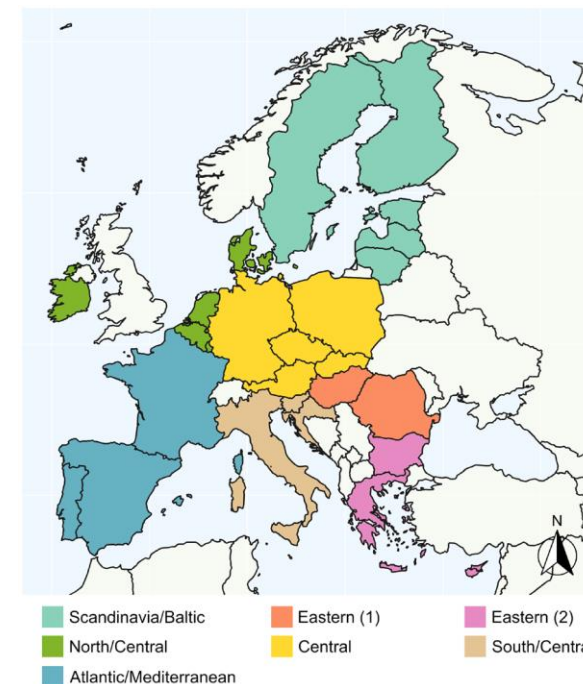


Support MVS pilots in EU Member States

The MVS methods will be piloted at 1-24 sites per country, according to the geographic area of each country. Those sites will include sites that are already part of other Schemes, e.g. within the eBMS partnership

7 regions of Europe for coordination of Task:

- ▶ Region 1. Scandinavia/Baltic: **Sweden**, Lithuania, Latvia, Finland, Estonia
- ▶ Region 2. Eastern 1. **Hungary**, Romania
- ▶ Region 3. Eastern 2. **Greece**, Bulgaria, Cyprus
- ▶ Region 4. Atlantic/Mediterranean. **Spain**, France, Portugal
- ▶ Region 5. North/Central. **Netherlands**, Belgium, Denmark, Ireland, Luxembourg.
- ▶ Region 6. Central. **Germany**, Czech Republic, Austria, Poland, Slovakia
- ▶ Region 7. South/Central. **Italy**, Croatia, Malta, Slovenia





Space, WHERE

1. Reference frame (Fin. & EU)
2. Design area? (near vege zone)

Biodiversity, WHAT

1. Measurement
2. Trading up (OK)
3. Limits (yes)

Actions, HOW; EFFECT (all accounted)

1. Additionality
2. Avoided loss response
3. Avoided loss bkg trend
4. Leakage
5. Restoration response
6. Monitoring and adaptive implementation

Time, WHEN

1. Permanence (required)
2. Design frame (30 yrs)
3. Time disc. (1.5 %)

Objectives, HOW MUCH

1. Mitigation hierarchy (unspecific)
2. Aim wrt NNL / NPI (NPI pref.)
3. Interpretation of NNL (mean expectation; uncertainty accounted)

LOSSES direct & indirect

GAINS

THE OFFSET
GAINS ≥ NNL / NPI

Flowchart relationships:

- Space, WHERE influences Biodiversity, WHAT
- Space, WHERE limits implementation of LOSSES
- Biodiversity, WHAT is measured as LOSSES
- Biodiversity, WHAT is the target of action
- Objectives, HOW MUCH determines the amount required for GAINS
- LOSSES and GAINS determine THE OFFSET (GAINS ≥ NNL / NPI)
- GAINS are estimated based on Actions, HOW; EFFECT and Time, WHEN

Finnish offset design

Anniversary Conference



Avoiding damage is cheaper than the offsetting!!
Offsets will hardly revise the trend

A photograph of a conference presentation. A large white text overlay is positioned diagonally across the top half of the image. In the foreground, a tilted image shows a person's hands holding a red sticky note and a green sticky note. The background shows a presentation slide with a flowchart and text. The flowchart includes terms like "measured", "limits implementation", "target of action", and "trading up (OK)". The text on the slide includes "Objectives, HOW M...", "1. Mitigation hierarchy (...)", "2. Aim wrt NNL / NPI (NPI)", and "3. Interpretation of NNL (... expectation; uncertainty account...".

target of action

Actions, HOW; EFFECT (all accounted)

1. Addit...

measured

limits implementation

trading up (OK)

3. Limits (yes)

Objectives, HOW M...

1. Mitigation hierarchy (...)

2. Aim wrt NNL / NPI (NPI)

3. Interpretation of NNL (... expectation; uncertainty account...

Anniversary Conference

Conference live stream:



... more than the offsetting!!

Ecological Complexity 7 (2010) 327–337



ELSEVIER

Contents lists available at [ScienceDirect](#)

Ecological Complexity

journal homepage: www.elsevier.com/locate/ecocom



Viewpoint

Precisely incorrect? Monetising the value of ecosystem services[☆]

Joachim H. Spangenberg^{a,b,*}, Josef Settele^a



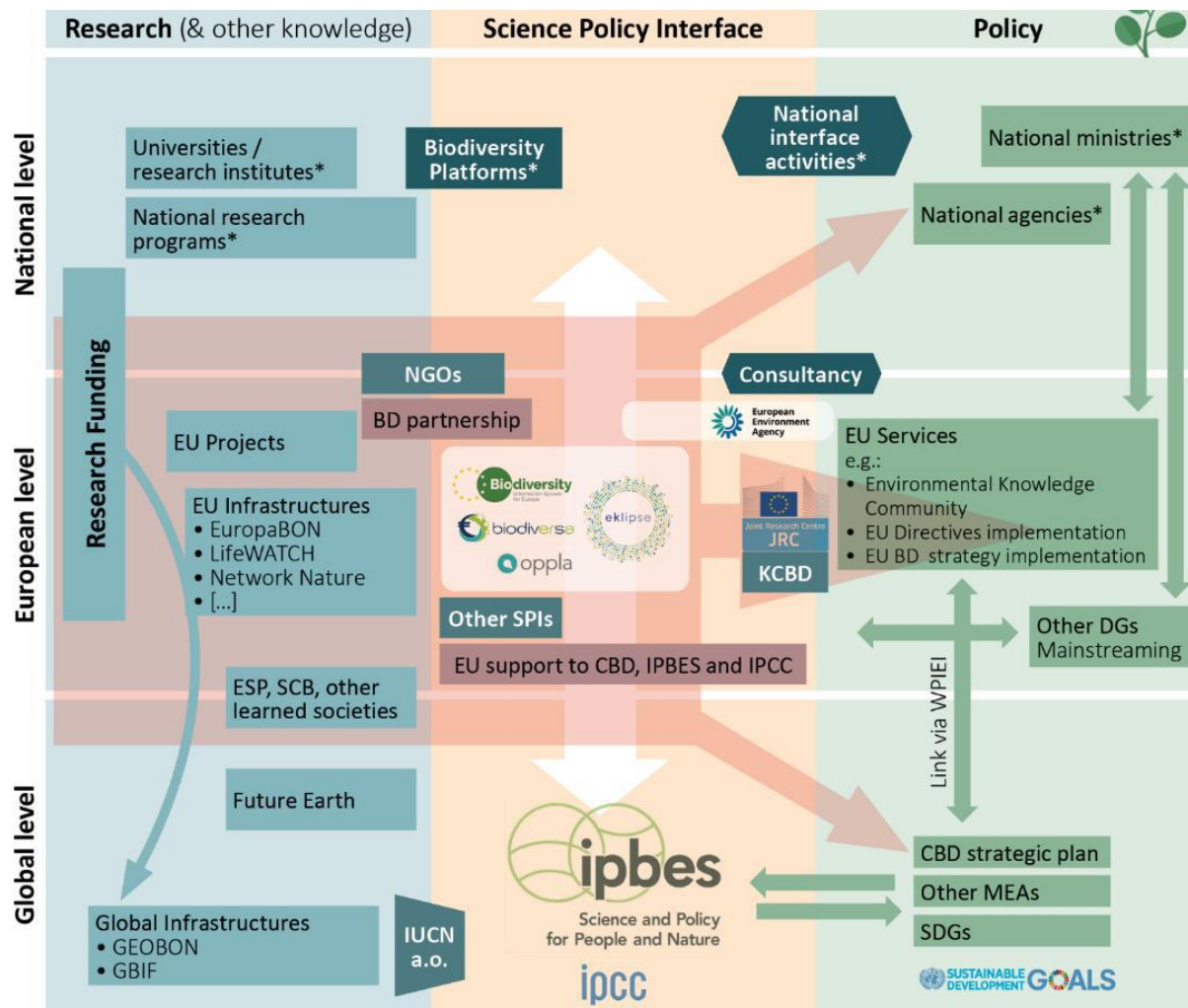
Anniversary Conference

The European Environment and Sustainable Development Advisory Councils (EEAC) Network

Bio-Agora (2022- 2027) will establish the “Science Service aiming at ratcheting up the implementation of biodiversity commitments”



Fig 1: The Science Service (in red) and its domain of orchestration and actions.



*May vary between MS
 ■ Future actors from Horizon Europe 2021-2022

Source: UFZ Science Policy Expert Group, 2012 & Eklipse, 2021

HORIZON-CL6-2021-BIODIV-01-19

Coordination: SYKE, UFZ and INRAE

22 partners total, incl. 15 partners from Alternet, 6 from PEER

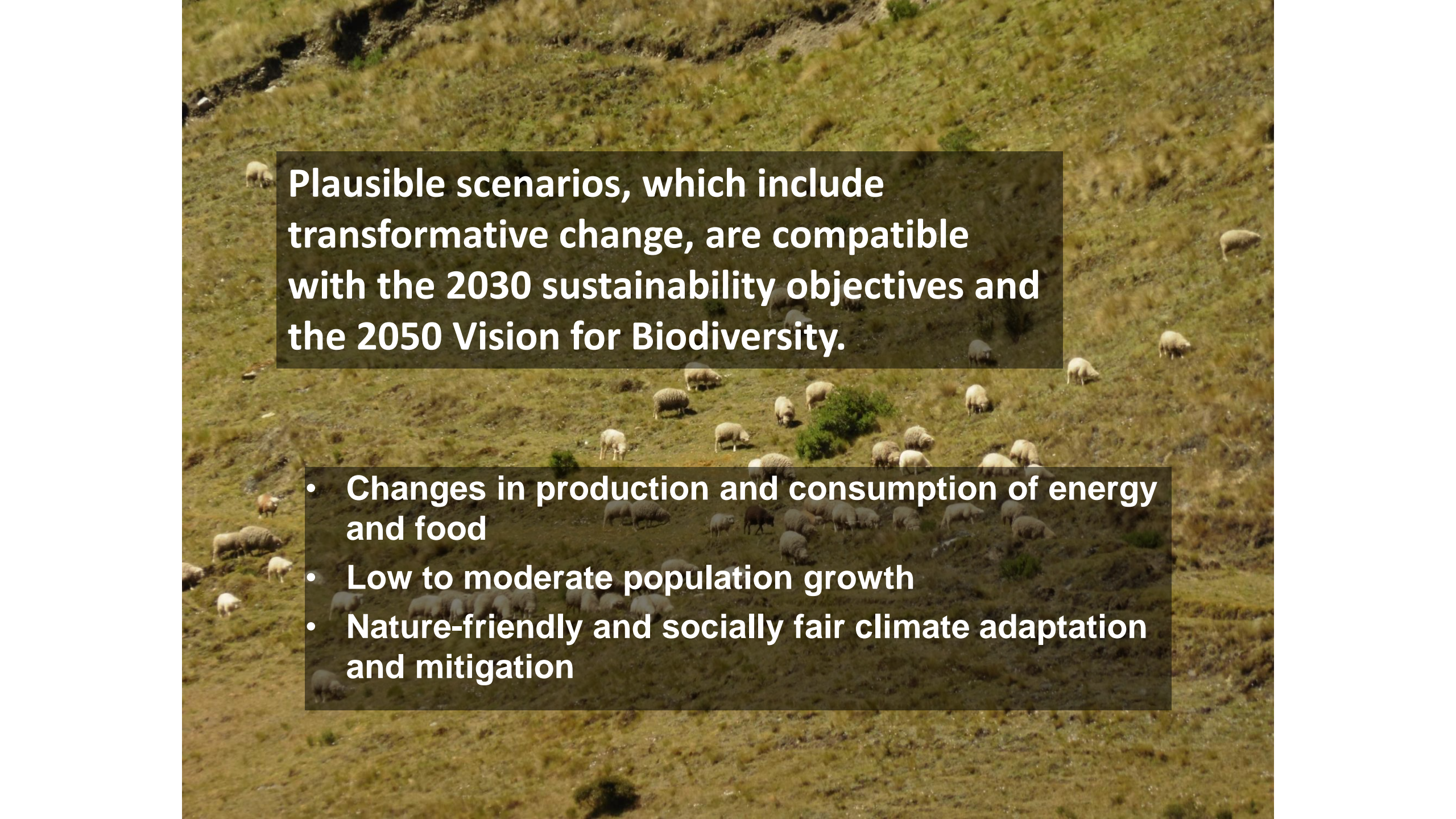
The overall aim of Bio-Agora is to connect research results to the needs of environmental policy in a targeted dialogue between science, other knowledge holders and policy actors.



A scenic landscape featuring a wide river valley with green fields and a small village in the foreground. The background shows rolling green hills under a clear sky. The text is overlaid on a dark semi-transparent box.

Options for our Future

Transformative Change =
fundamental, system-wide reorganisation of
technological, economic and social factors,
incl. paradigms, targets and values

An aerial photograph of a sheep farm on a grassy hillside. The sheep are scattered across the slope, some grazing and some standing. The terrain is covered in green and brown grass, with some small bushes and trees. The overall scene is a typical pastoral landscape.

Plausible scenarios, which include transformative change, are compatible with the 2030 sustainability objectives and the 2050 Vision for Biodiversity.

- **Changes in production and consumption of energy and food**
- **Low to moderate population growth**
- **Nature-friendly and socially fair climate adaptation and mitigation**