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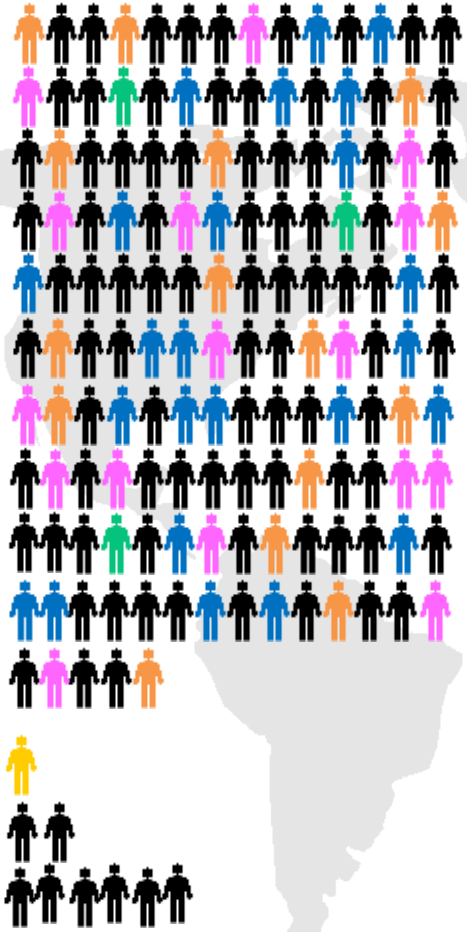
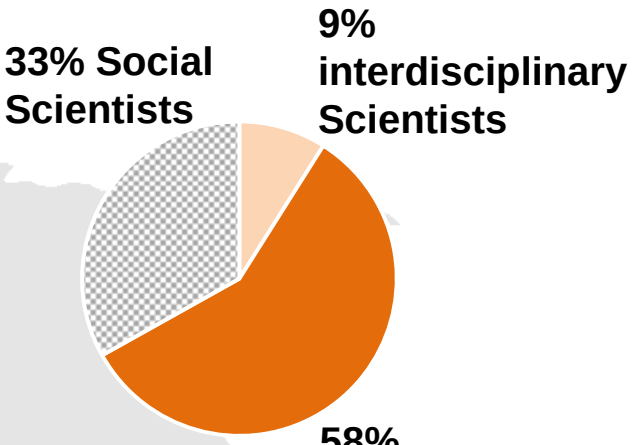
# The Author Team

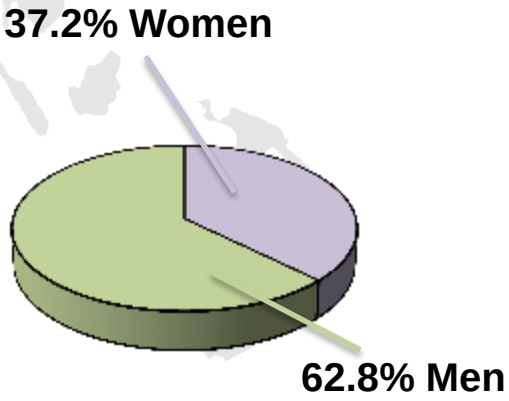


145 experts
from 51 countries

(3 co-chairs
24 coordinating lead authors
87 lead authors
15 review editors
16 fellows)

& 310 contributing authors




**~156,000 Hours of Voluntary Work = ~17 years**

**Supported by:**
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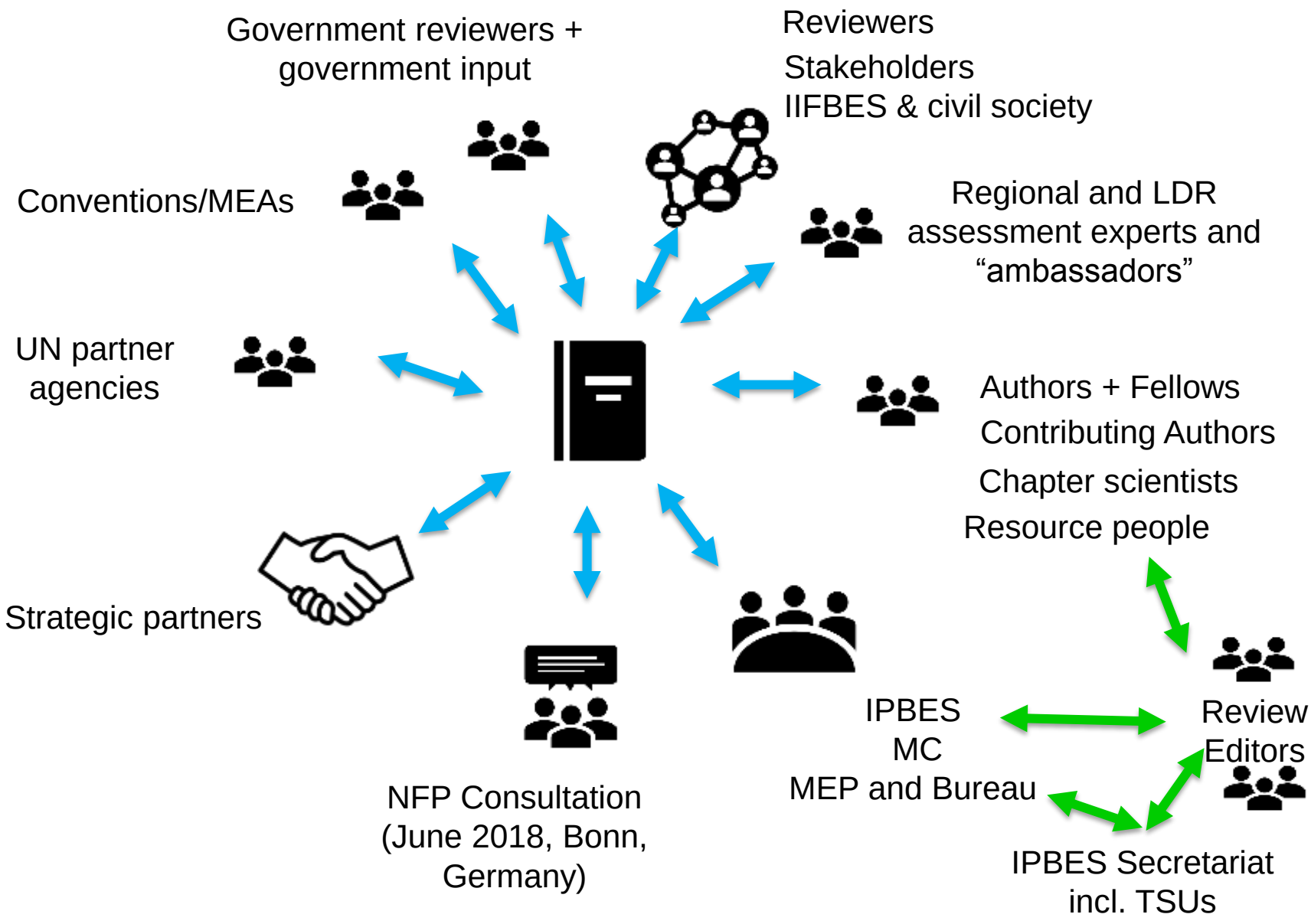
# A co-produced Summary for Policymakers

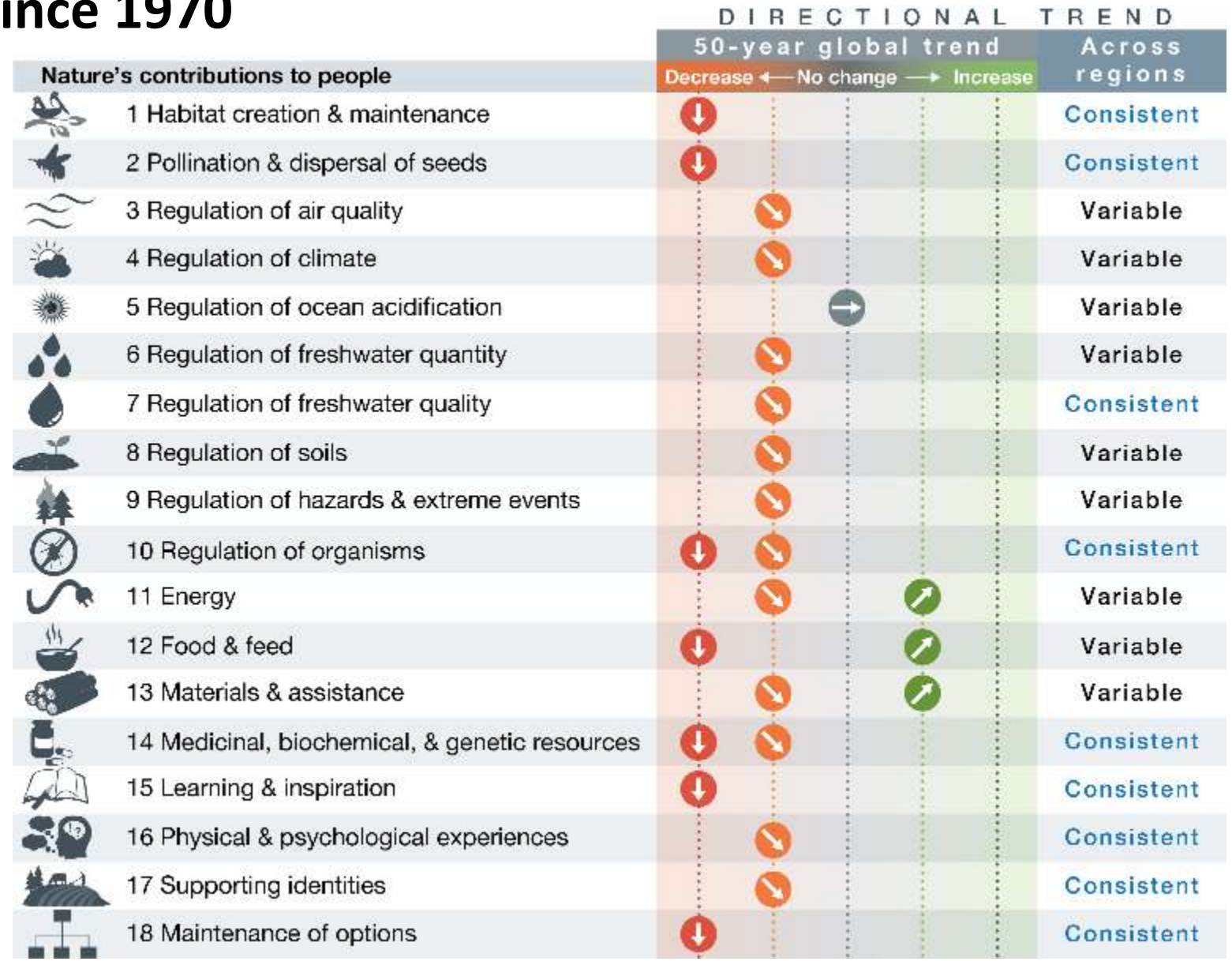



Nature underpins and sustains
human quality of life

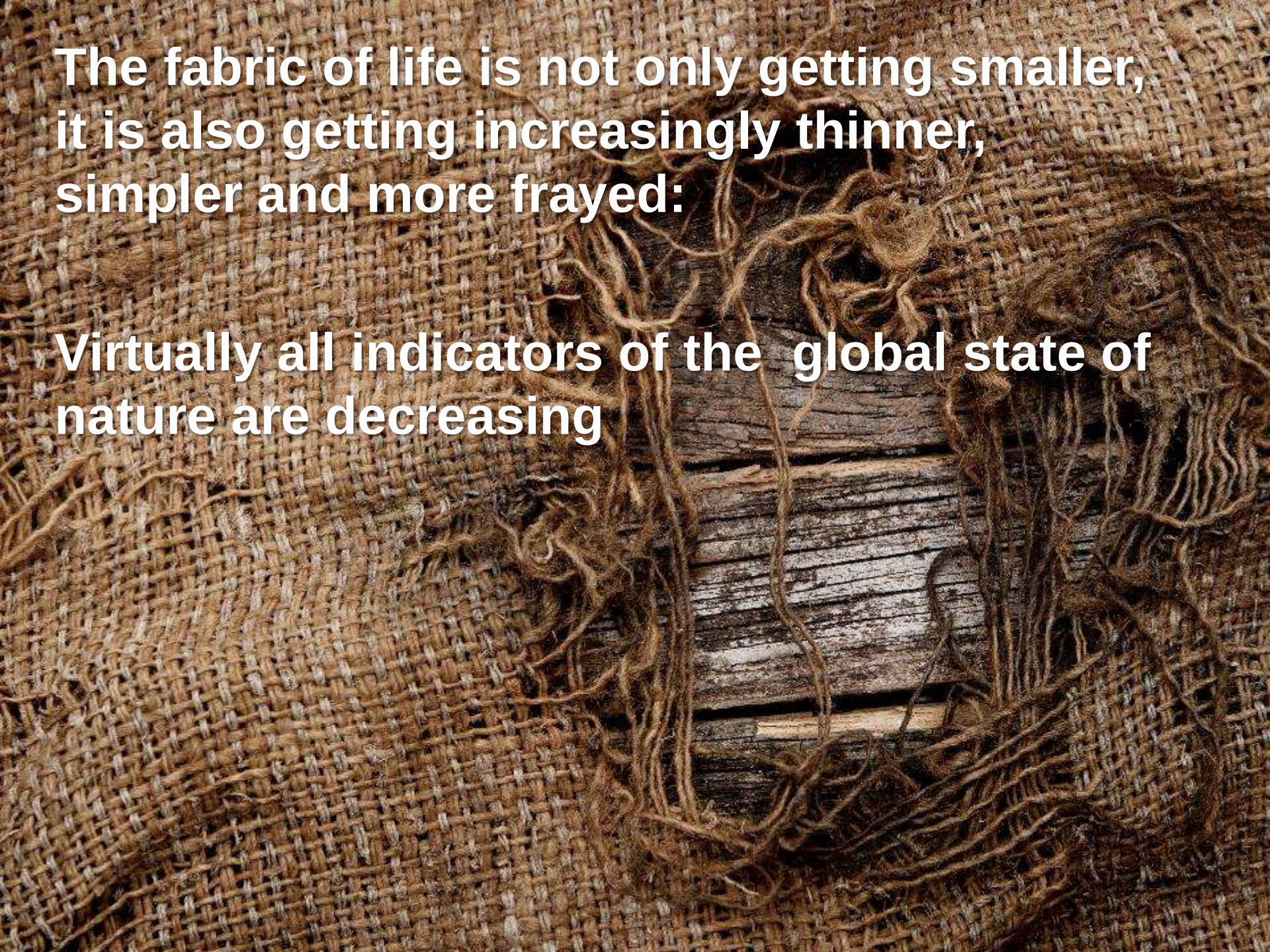

Nature and its vital
contributions to people are
deteriorating worldwide

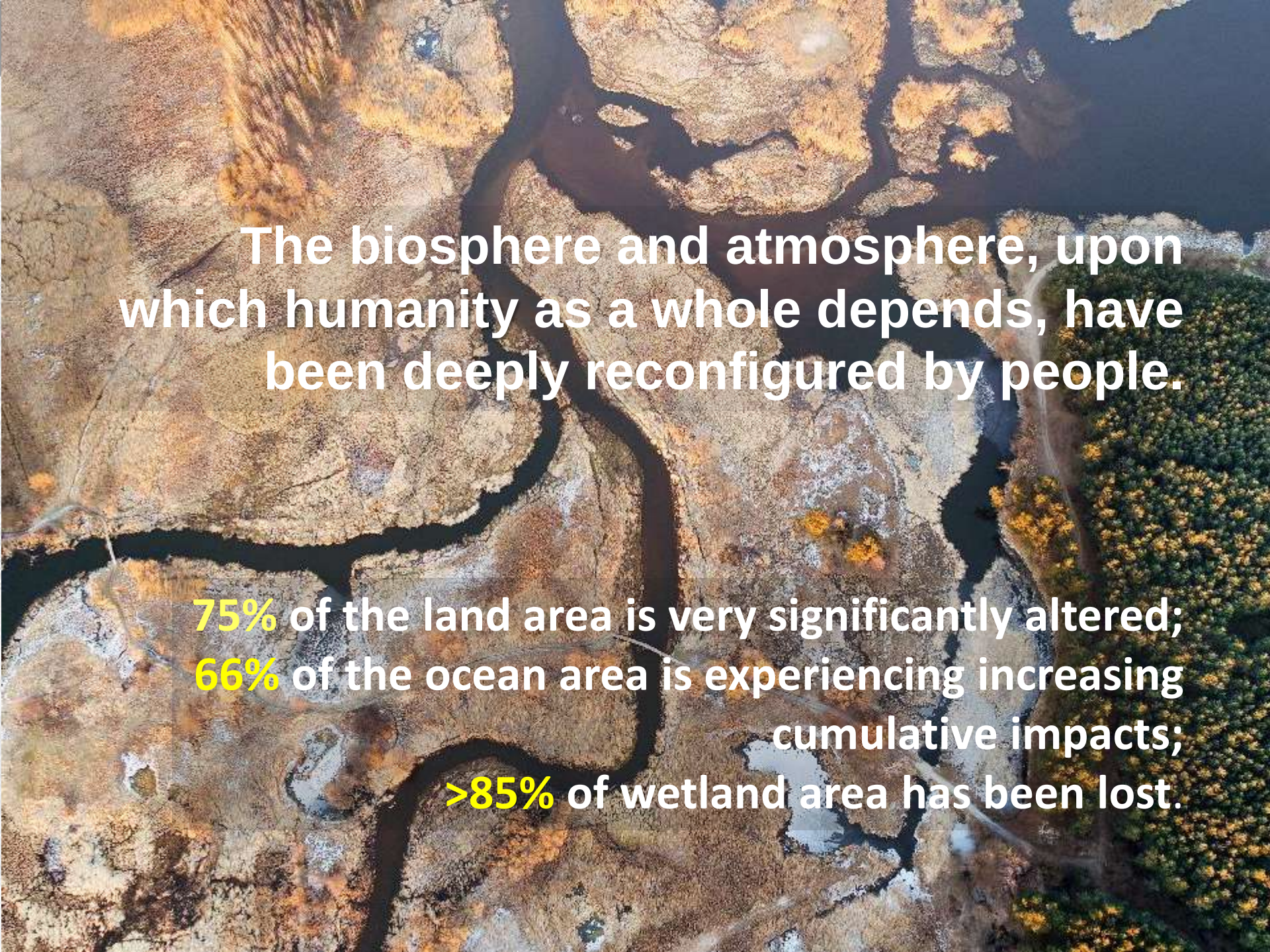
**More food, energy and materials than ever before are now being supplied to people across distant regions**

# Global trends in nature's contributions to people since 1970

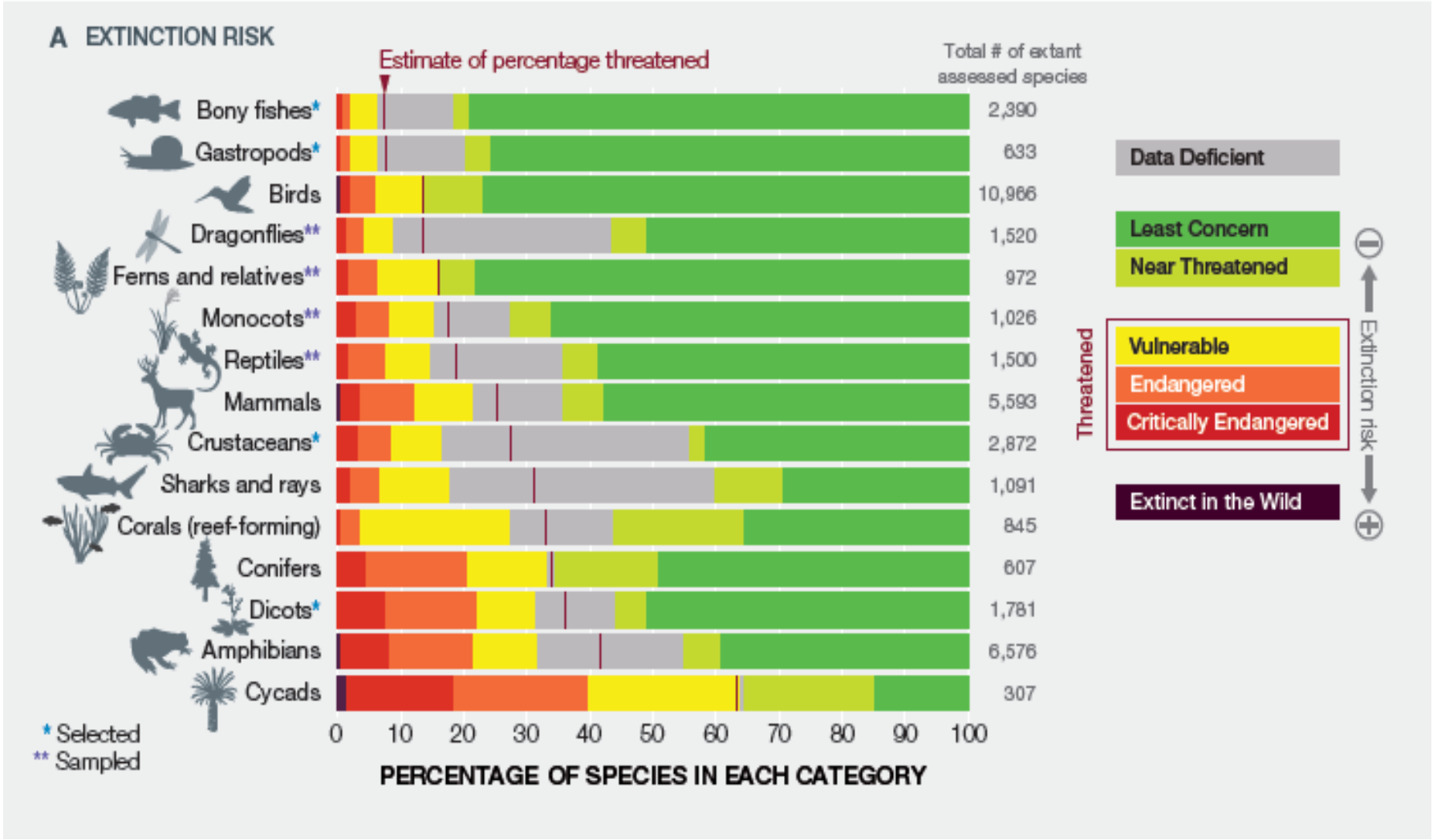



The fabric of life on Earth is deteriorating fast worldwide

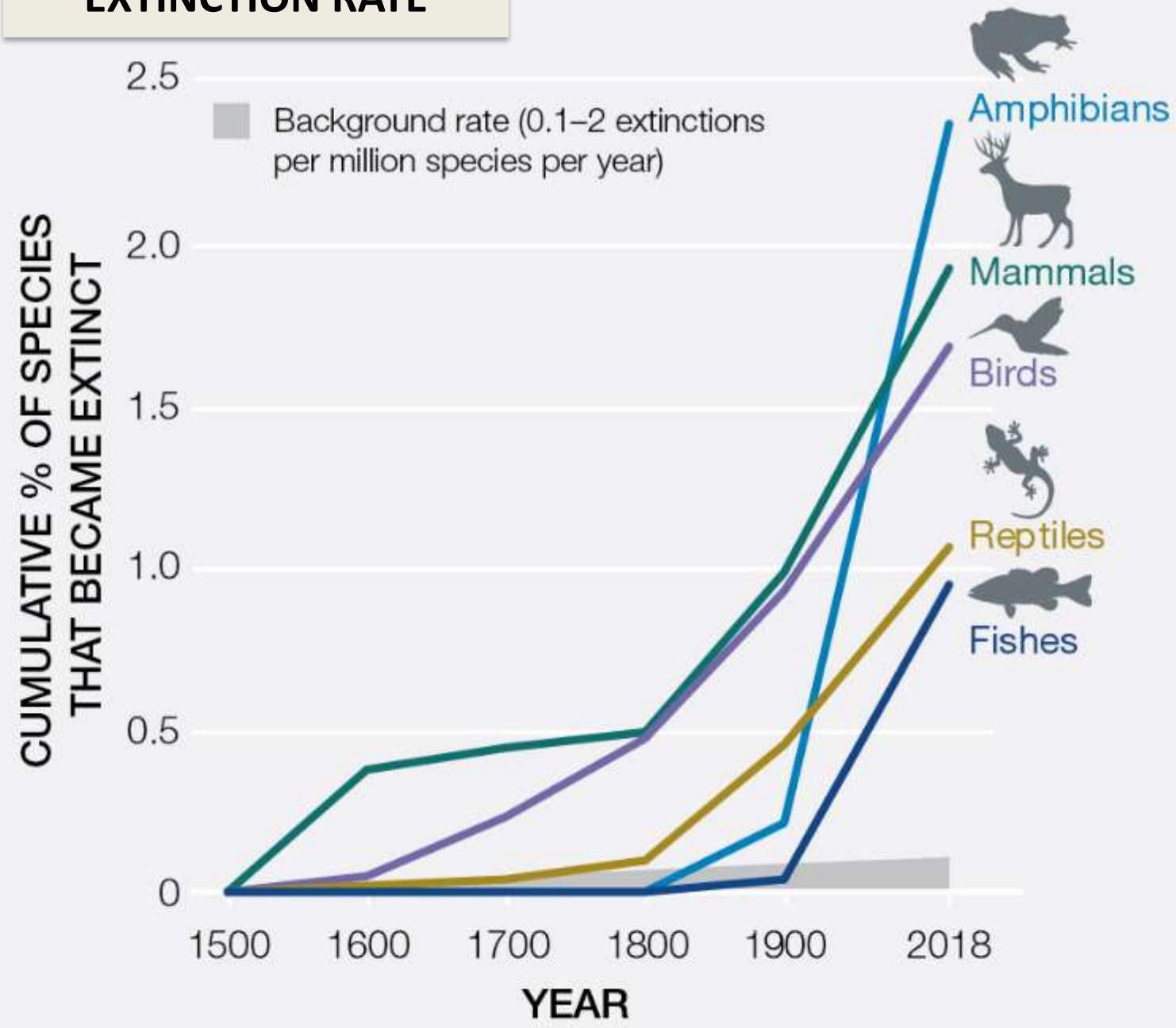

The fabric of life is not only getting smaller, it is also getting increasingly thinner, simpler and more frayed:
Virtually all indicators of the global state of nature are decreasing


The biosphere and atmosphere, upon which humanity as a whole depends, have been deeply reconfigured by people.
75% of the land area is very significantly altered;
66% of the ocean area is experiencing increasing cumulative impacts;
>85% of wetland area has been lost.

# More species of plants and animals are threatened with extinction now than at any other time in human history.



# EXTINCTION RATE



# The number of local varieties and breeds of domesticated plants and animals has decreased sharply

**Proportion of the world's mammal and bird breeds by risk status category**

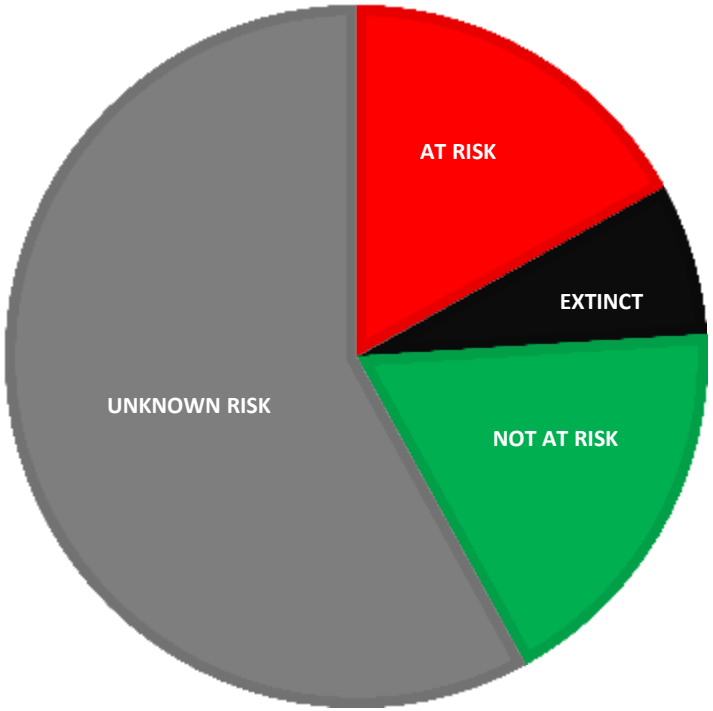



Image: https://www.quora.com/What-is-the-breed-name-of-the-Indian-Desi-cow

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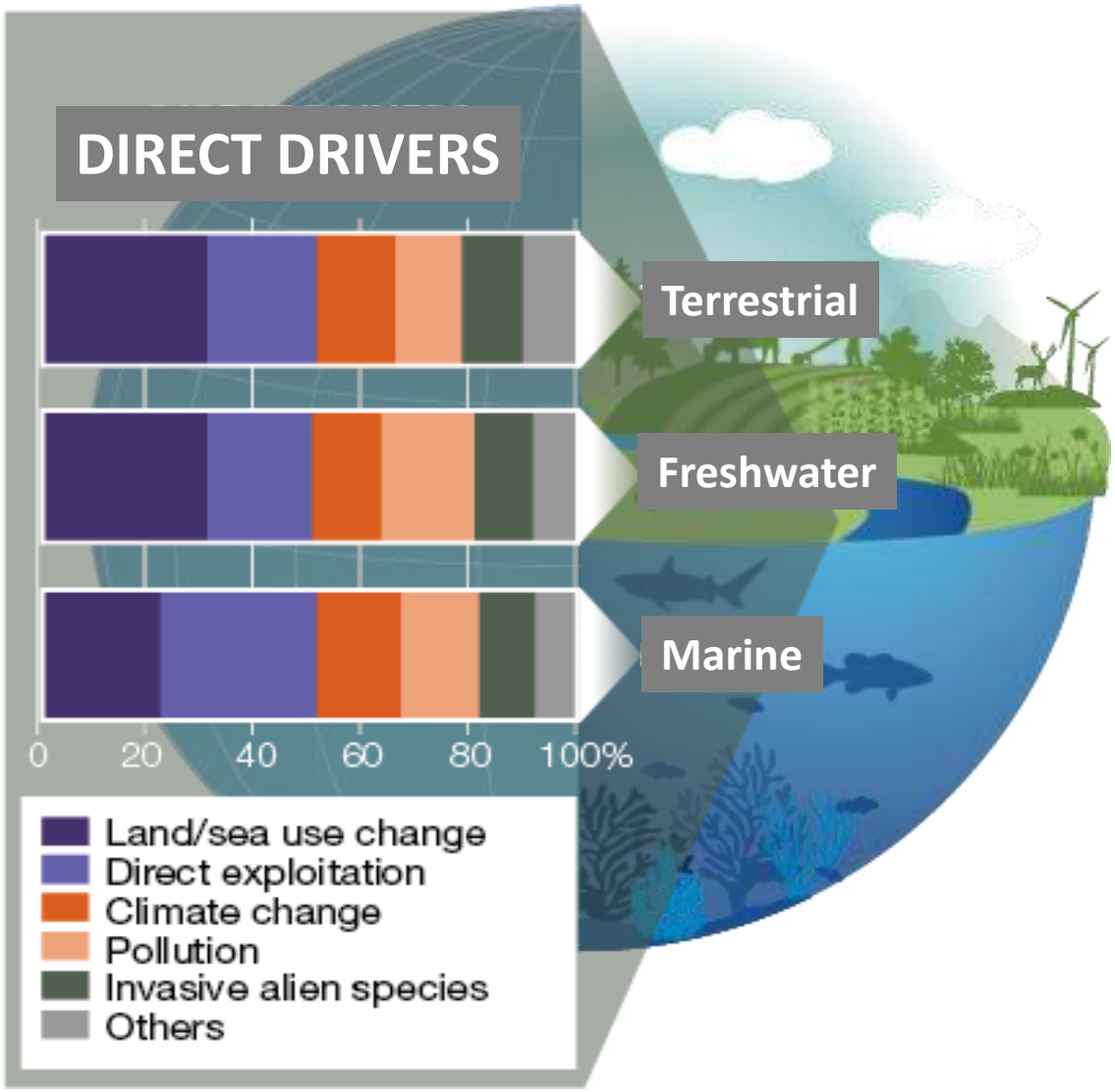
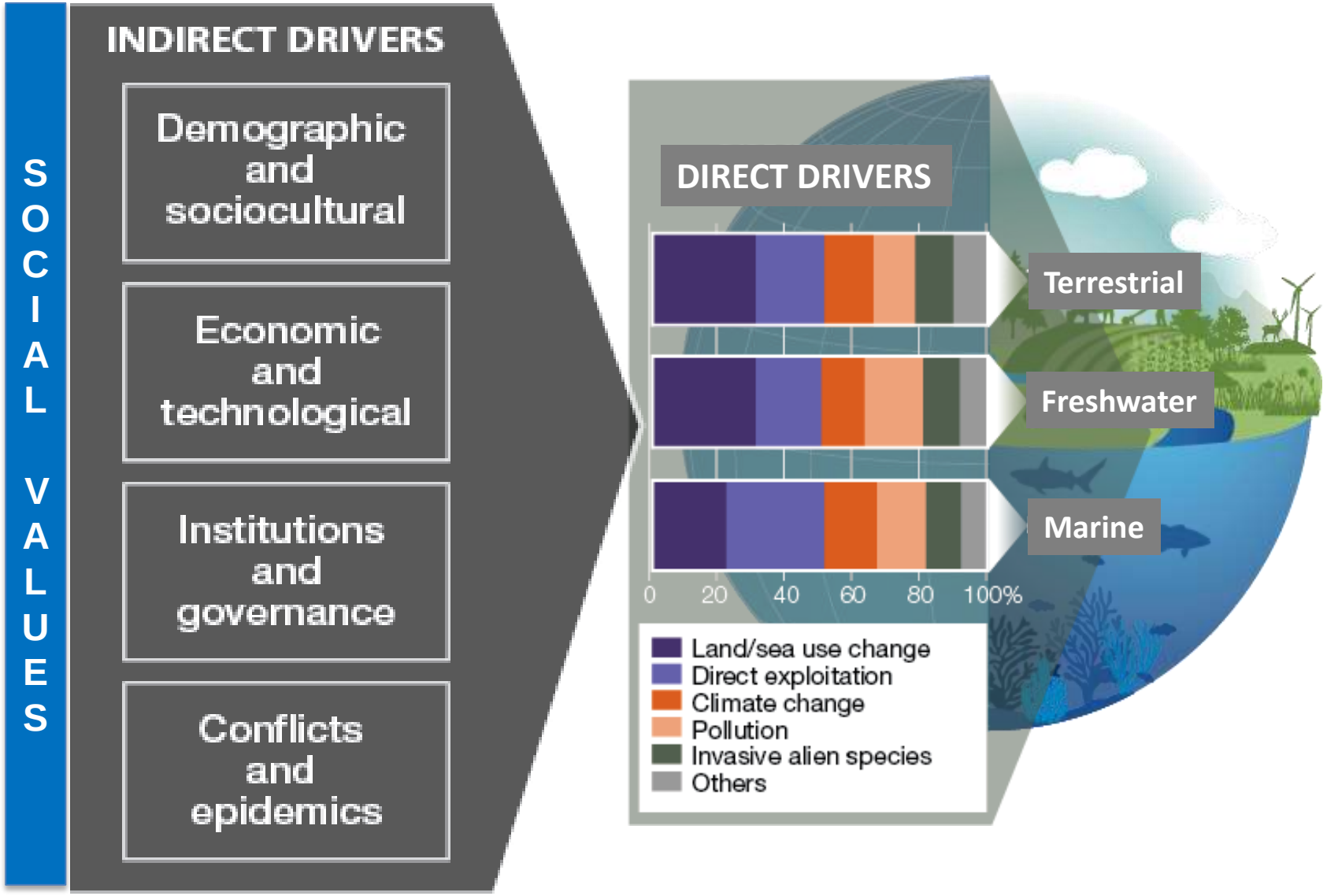
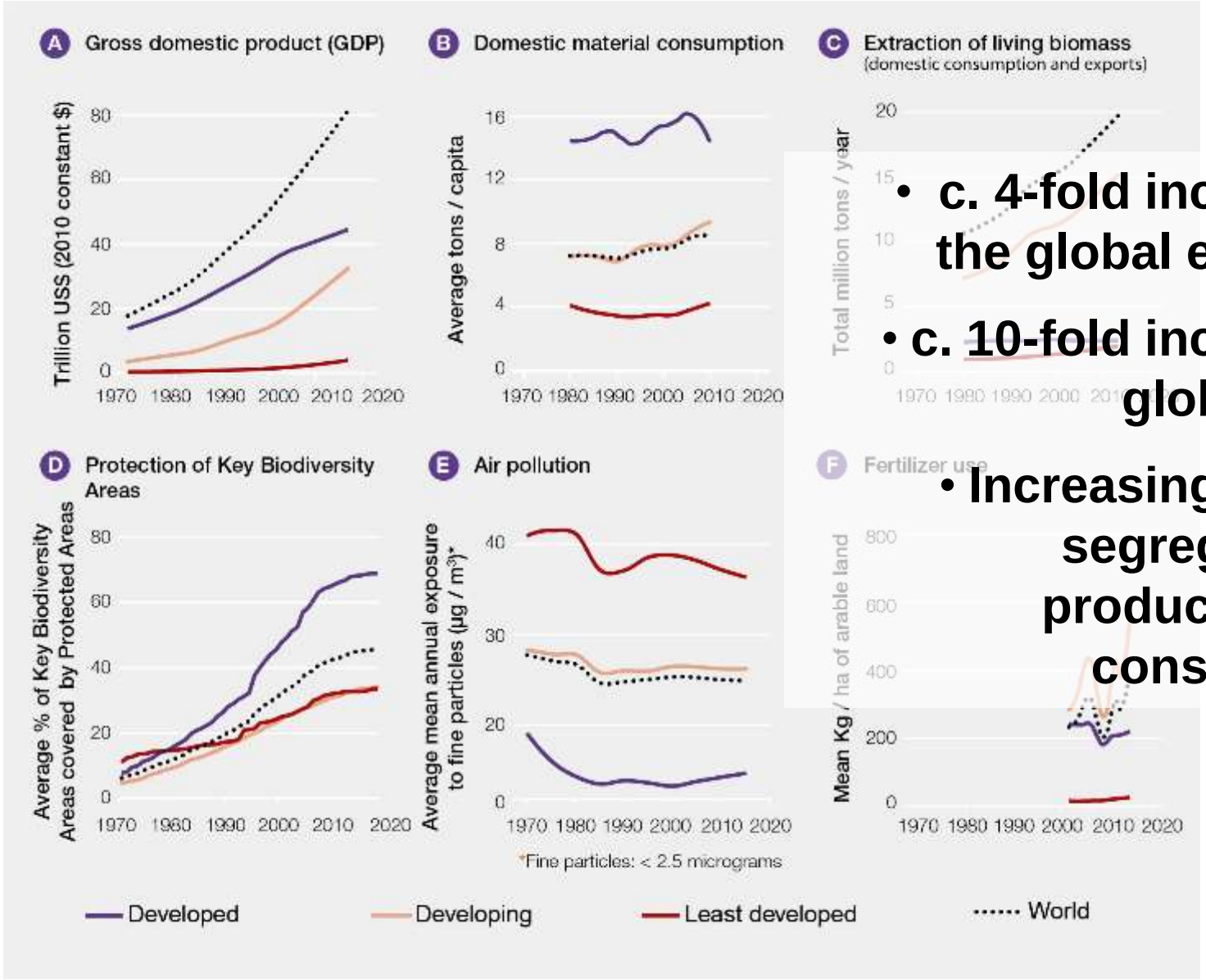
# Drivers of change have accelerated during the past 50 years to levels unprecedented in human history



**Underpinning the proximate causes of deterioration in nature are the root causes, or indirect drivers of change.**



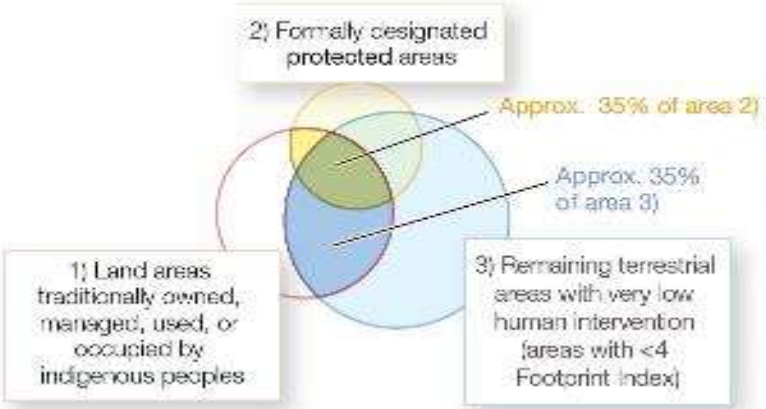
# Global trends and regional asymmetries in development, production and consumption




- c. 4-fold increase in the global economy
- c. 10-fold increase in global trade
- Increasing spatial segregation of production and consumption

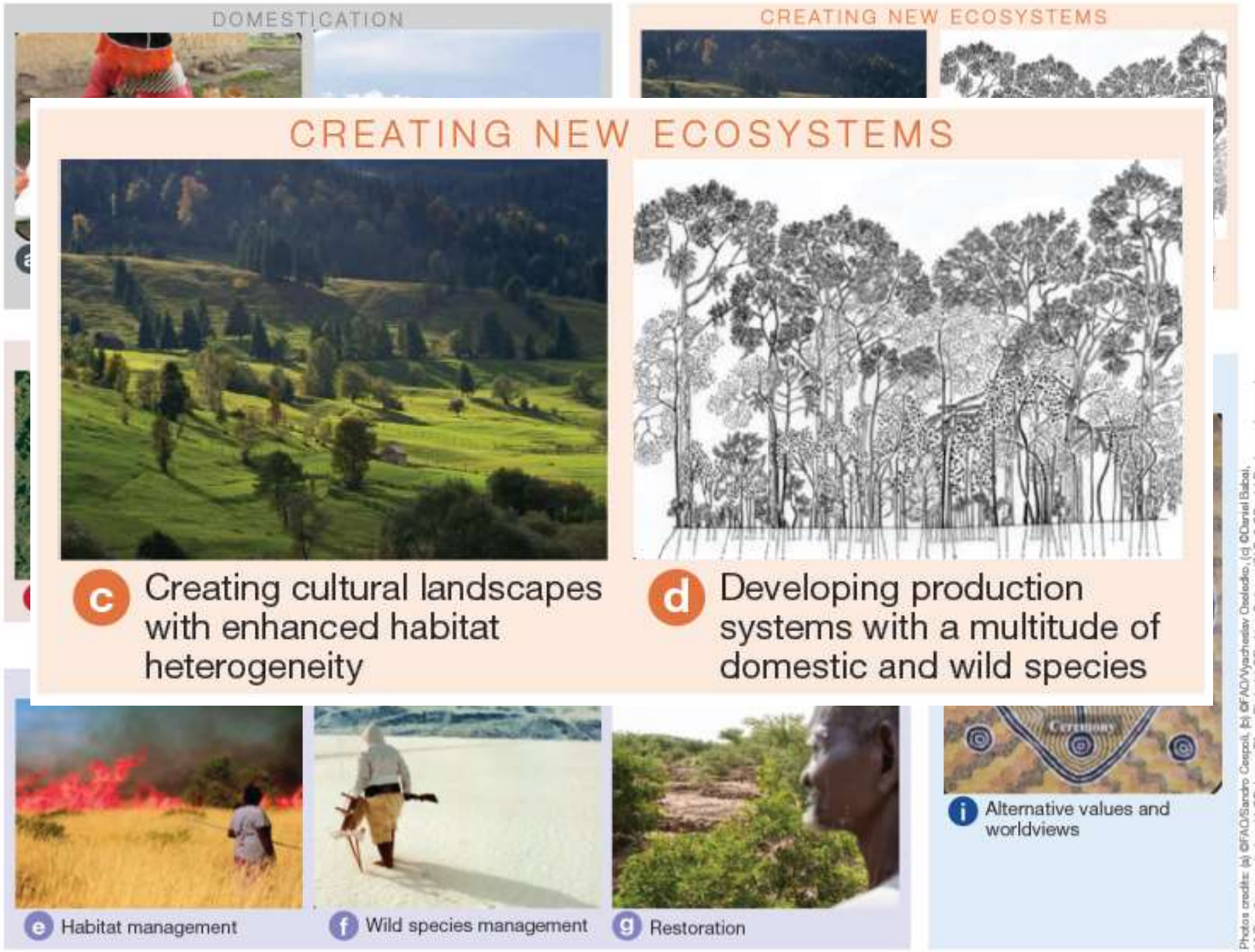
# Contributions of Indigenous Peoples and Local Communities: knowledge, innovations, practices, and institutions



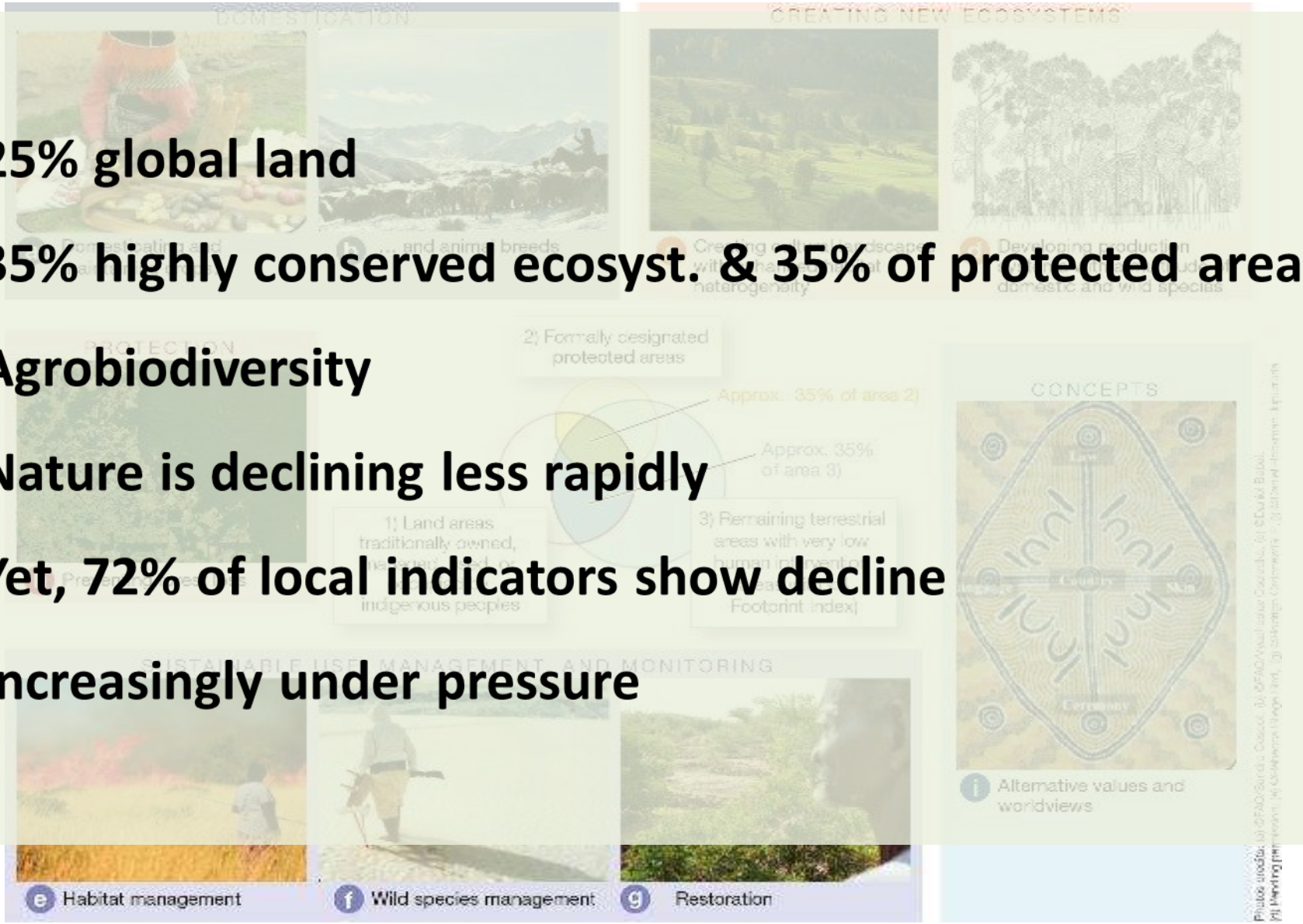


# Contributions of Indigenous Peoples and Local Communities: knowledge, innovations, practices, and institutions

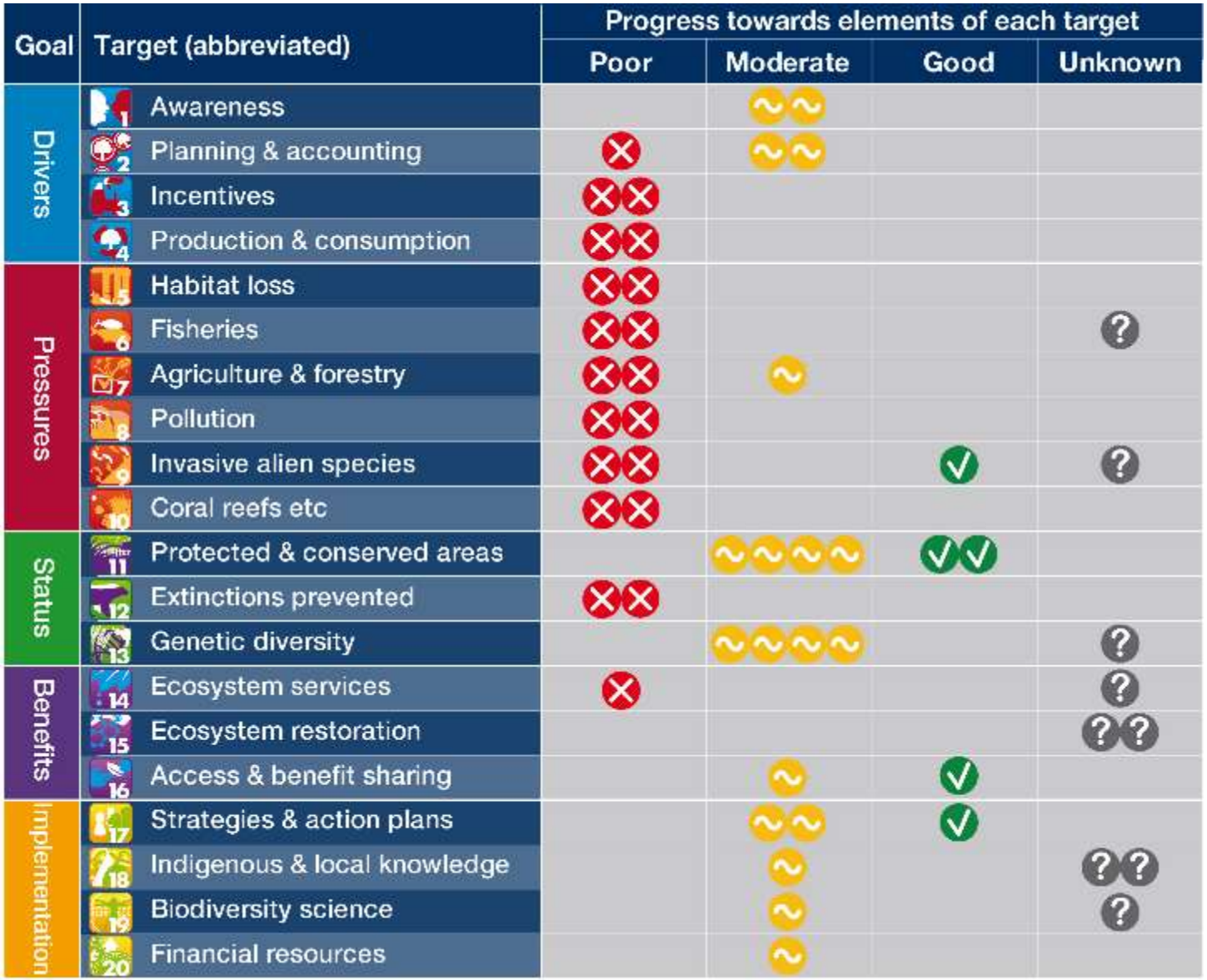


# Contributions of Indigenous Peoples and Local Communities: knowledge, innovations, practices, and institutions

- 25% global land
- 35% highly conserved ecosyst. & 35% of protected areas
- Agrobiodiversity
- Nature is declining less rapidly
- Yet, 72% of local indicators show decline
- Increasingly under pressure



# Progress towards the Aichi Biodiversity Targets (each symbol represents an element of the targets)



# Progress towards the UN Sustainable Development Goals (each symbol represents a target with close relation to Nature)

| Selected Sustainable Development Goals | Recent status and trends in aspects of nature and nature's contributions to people that support progress towards target * | | | Uncertain relationship |
|---|---|---|---|---|
| | Poor/Declining support | Partial support | Unknown | |
| No poverty | ↓ ↓ | | | U U |
| Zero hunger | ↓ | → → → | | |
| Good health and well-being | | | ? ? | U U |
| Clean water and sanitation | ↓ ↓ ↓ | → | | |
| Sustainable cities and communities | ↓ ↓ ↓ ↓ | → | | |
| Climate action | ↓ | → | ? ? ? | |
| Life below water | ↓ ↓ ↓ ↓ | → → → | | |
| Life on land | ↓ ↓ ↓ ↓ ↓ ↓ | → → → → → | | |

* There were no targets that were scored as good/positive status and trends

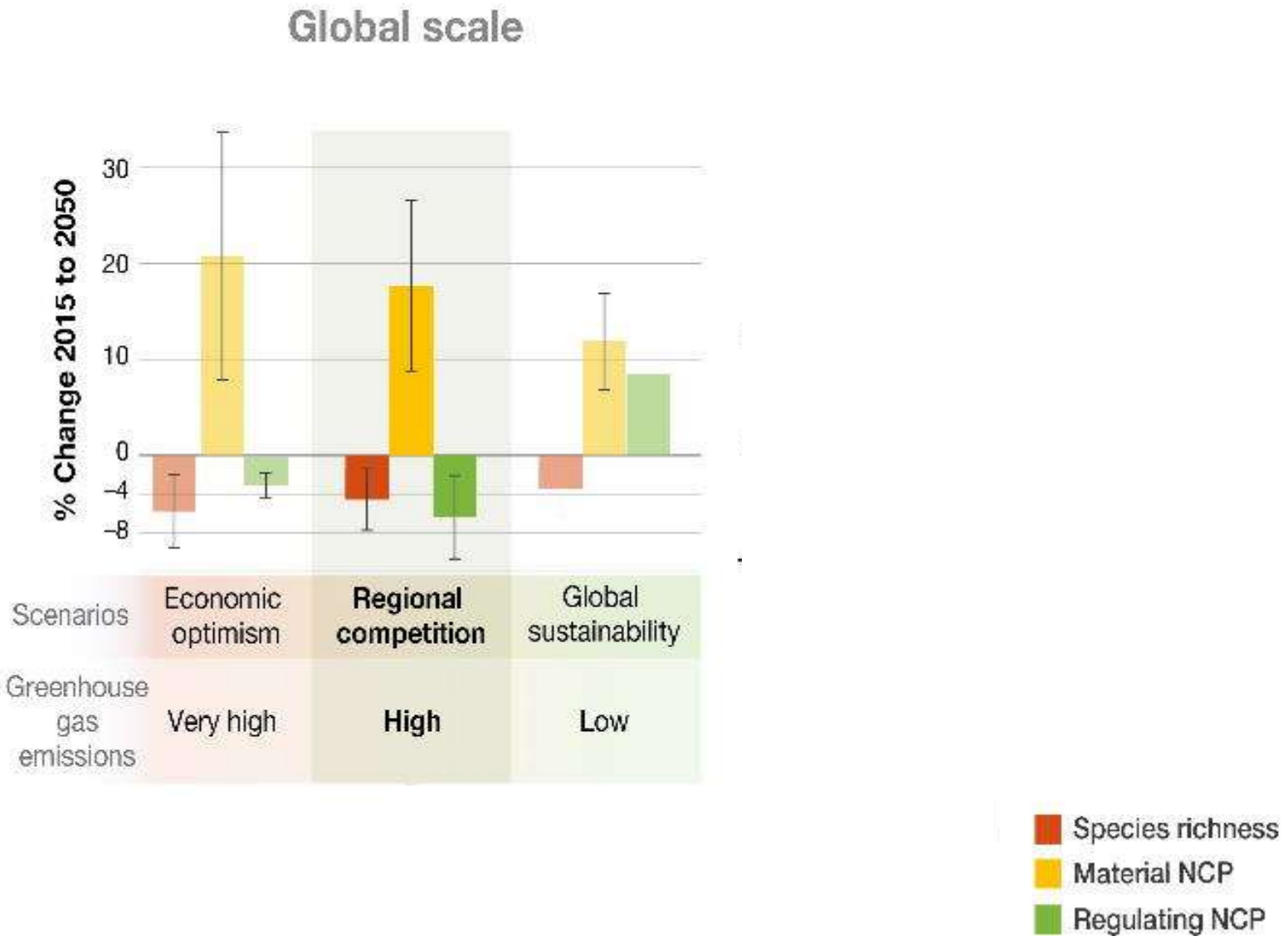
# Plausible futures - Scenarios

**Economic optimism**
- rapid economic growth
- low regulation

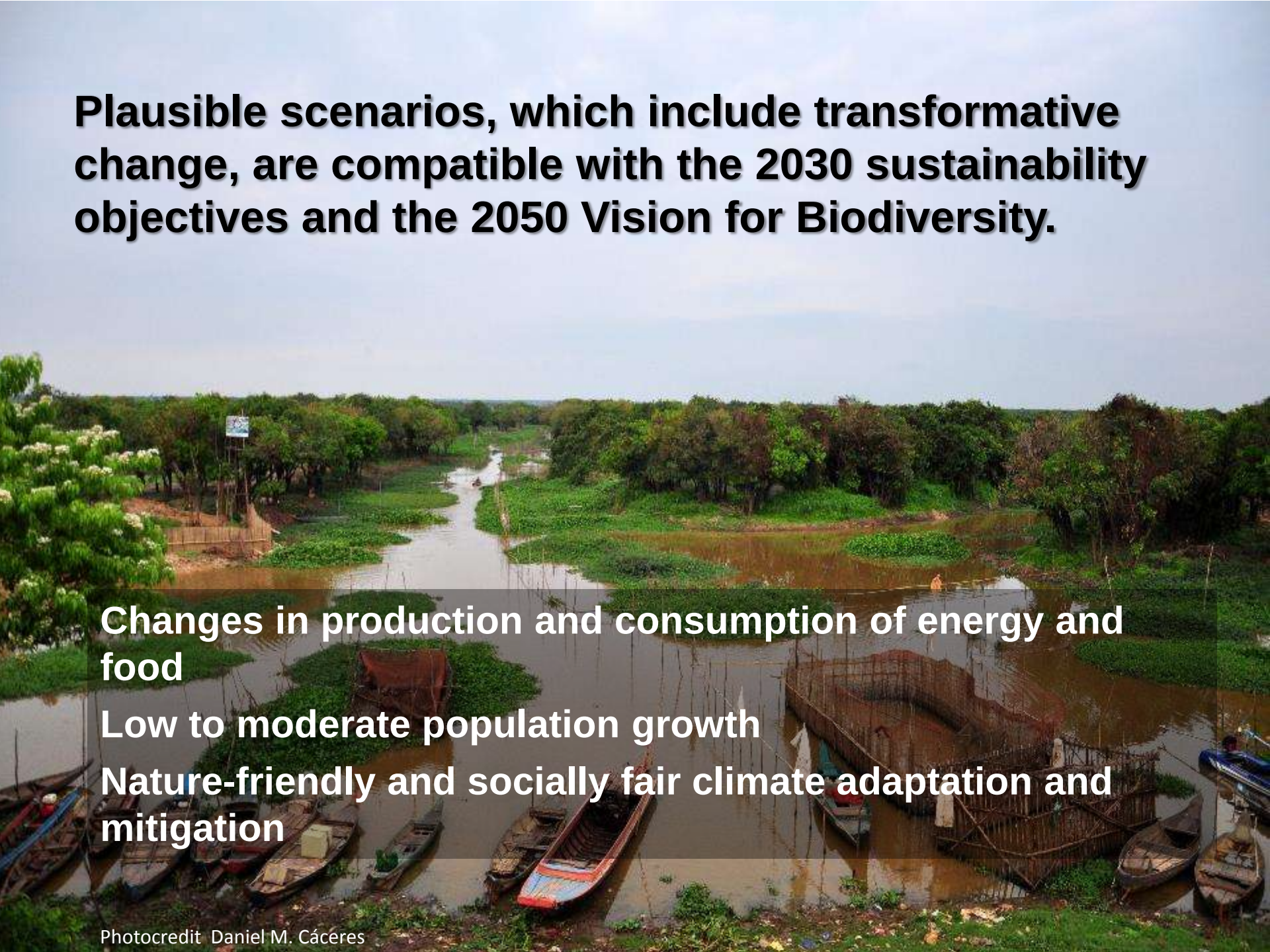
**Regional competition**
- strong trade and other barriers
- growing gap between rich and poor

**Global sustainability**
- Proactive environmental policy
- Sustainable production and consumption

# Projected changes in biodiversity and nature's material and regulating benefits, due to climate & land use change by 2050



**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**

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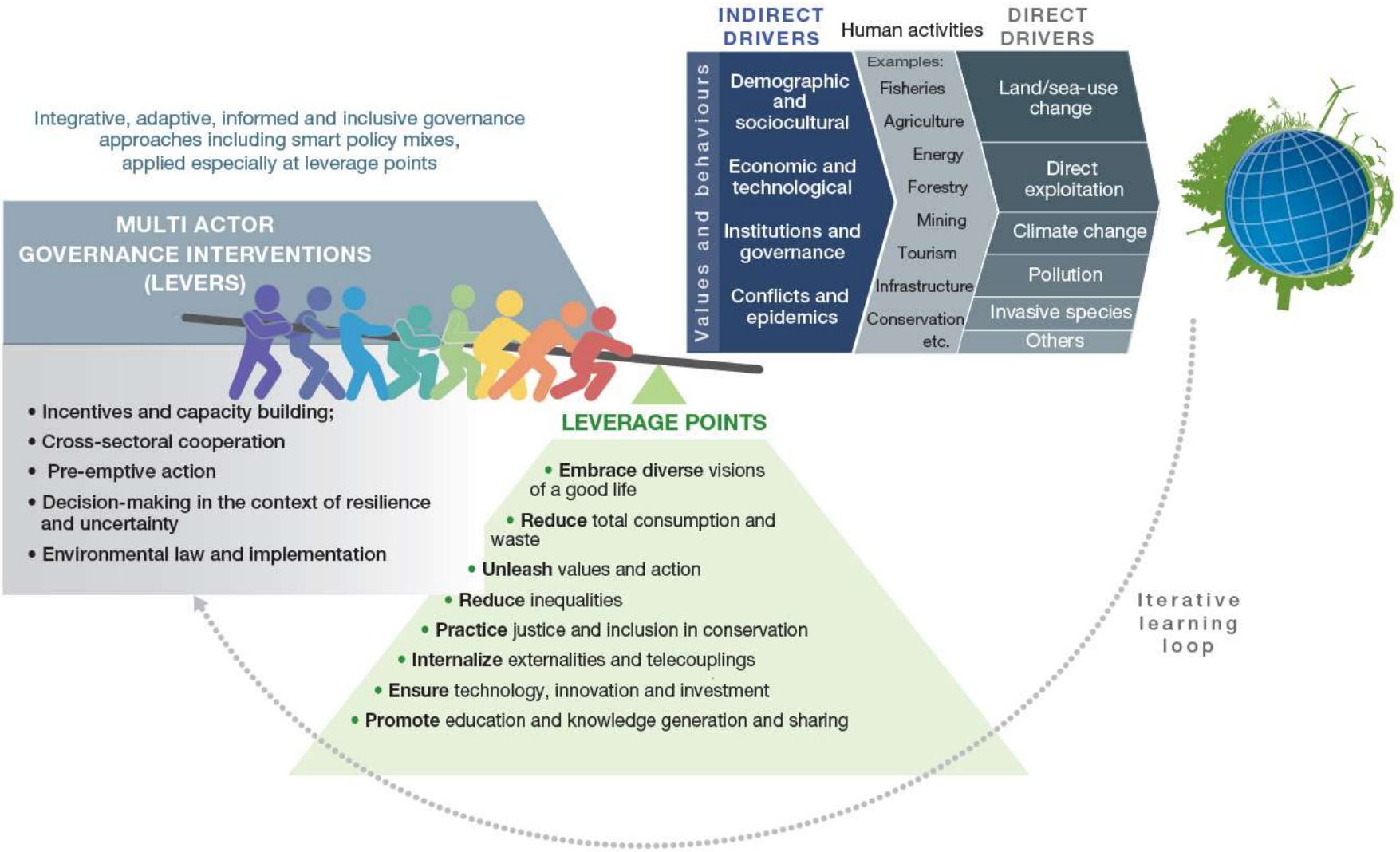
**We have dramatically reconfigured the fabric of life of the planet.**

**The world is becoming much more interconnected, yet increasingly unequal.**


Options for the futures we want

# Options for the futures we want



# Confronting the challenge of meeting international societal and environmental goals for the next decades

# Key components for transformation

**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.**

.

**Need for rapid implementation of existing instruments and bold decisions for transformative change.**

**Knowledge and tools available, they simply need better deployment and implementation.**

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

- **Governance**
- **Economic systems**
- **Equity**
- **Cross-sectorial planning**
- **Incentives**
- **Social narrative and values**

# Cross-Sectoral, Integrated Management at Multiple Levels

→ **Food production and conservation goals: complementary and interdependent.**

→ **Sustainable fisheries: integrated management on land, in freshwater and oceans.**

→ **Land-based climate change mitigation: attention to trade-offs.**

→ **Nature-based solutions in cities: crucial for global sustainability.**

**Recognizing the knowledge, innovations and practices, institutions and values of indigenous peoples and local communities and their inclusion and participation in environmental governance.**

**Enhances their quality of life, as well as nature conservation and sustainable use, relevant to broader society.**

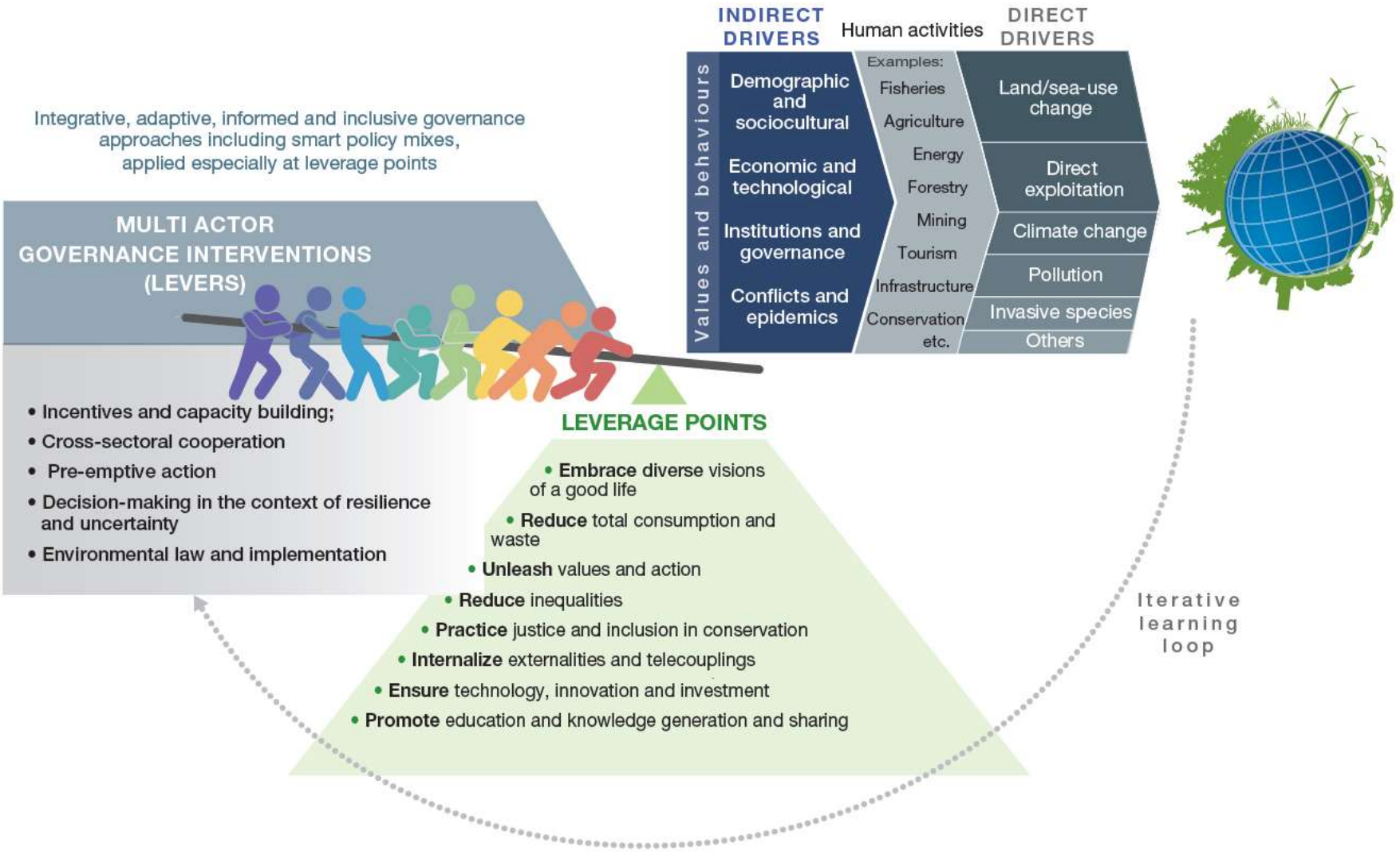
**A key constituent of sustainable pathways is the evolution of global financial and economic systems to build a global sustainable economy.**

**One that steers away from the current limited paradigm of economic growth.**

**Many societal responses and successful examples, rapid transformative change is already happening in many sectors, just not at the scale needed to match that of the crisis.**

**Bold actions and commitment from local to global levels urgently needed.**

# Options for the futures we want



# Possible actions and pathways to achieve transformative change

Building **sustainable cities** that address critical needs while conserving nature, restoring biodiversity, maintaining and enhancing ecosystem services

# Sustainable cities

- Engaging **sustainable urban planning** (e.g. G, CG, IPLC, NGO, P) {6.3.5.1} (D9)
- • Encouraging densification for compact communities, including brownfield development and other strategies **{6.3.5.3}**
- Including biodiversity protection, biodiversity offsetting, river basin protection, and ecological restoration in regional planning {6.3.5.1}
- Safeguarding urban key biodiversity areas and ensuring that they do not become isolated through incompatible uses of surrounding land {6.3.5.2; SM 6.4.2}

# Sustainable cities

- Promoting biodiversity mainstreaming through stakeholder engagement and integrative planning (e.g. G, NGO, CG, IPLC) {6.3.5.3}, thus encouraging alternative business models and incentives for urban conservation {6.3.2.1}
- Promoting sustainable production and **consumption** {6.3.6.4}
- **Promoting** nature-based solutions (e.g. G, NGO, SO, P) {6.3.5.2} (D8, D9)

# Sustainable cities

- Promoting, developing, safeguarding or retrofitting **green and blue infrastructure** (for water management) while improving grey (hard) infrastructure to address biodiversity outcomes {6.3.5.2}
- Promoting ecosystem-based adaptation within communities {3.7; 5.4.2.2}
- Maintaining and designing for **ecological connectivity within urban spaces,** particularly with native species {6.3.5.2; 6.4.1}
- **Increasing** urban green spaces and improving access to them{6.3.2}

# **Building sustainable cities**
# (in a subjective nutshell)

- Limit urban sprawl
- Promote low impact public transportation, nature sensitive road networks
- Expand vegetation cover, promote urban gardens
- Manage for ecological connectivity
- Promote sustainable water and solid waste management

# In a nutshell

- **Most comprehensive global picture of the links between nature and people in recent times ever produced.**

- **Trends worrying and clearly unsustainable**

- **A call for action:**
  - **Prompt action (go further and faster)**
  - **Tackling the roots causes of nature's deterioration**
  - **Coordinated and integrated across sectors and scales**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