



#IPBES7

THE IPBES GLOBAL ASSESSMENT

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Food and Agriculture
Organization of the
United Nations





#IPBES7

More than 450 of the
worlds leading experts.
One #GlobalAssessment



**Nature underpins and sustains
human quality of life**







Photocredit Esteban Tapella







Photo: Anne Bjorkman



Photocredit Lawrence Hislop







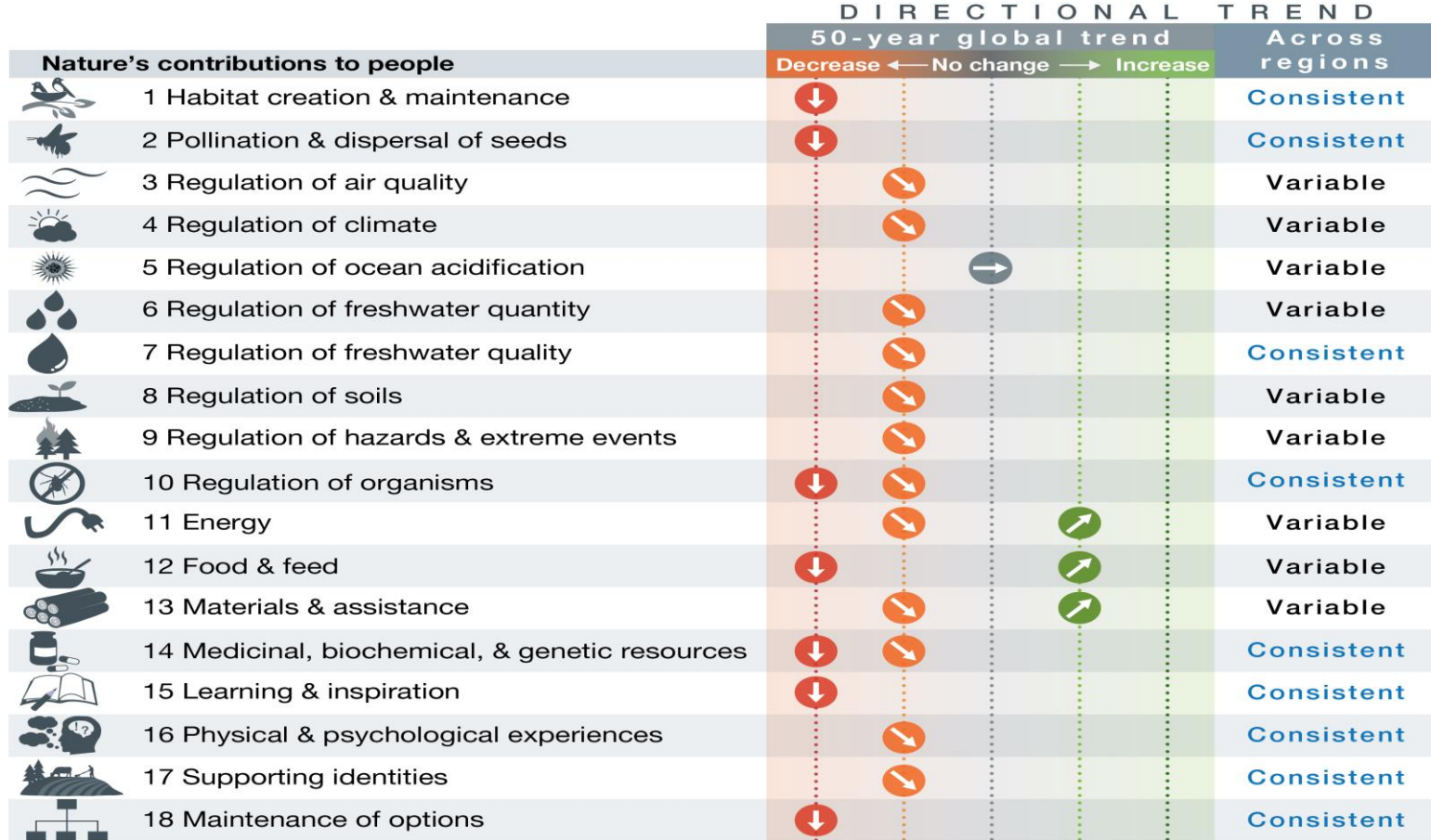
**Nature and its vital
contributions to people are
deteriorating worldwide**



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:

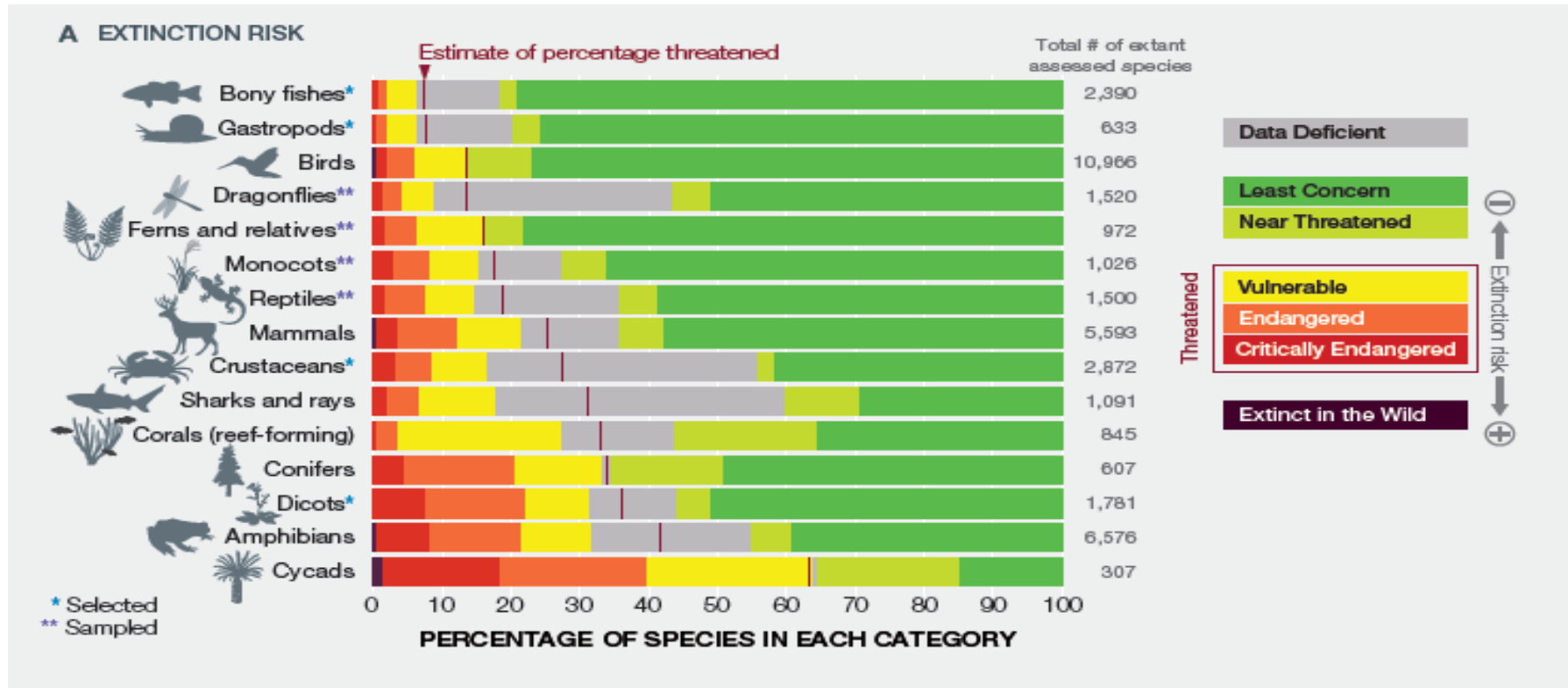
- . Ecosystems areal extent and integrity**
- . Size of populations of animals and plants**
- . Distinctiveness of local communities**
- . Number of species on Earth**
- . Number local varieties of domesticated plants & animals.**

An aerial photograph of a river delta, showing a complex network of channels and distributaries. The water is dark, and the surrounding land is a mix of brown, tan, and green, indicating different types of vegetation and soil. The text is overlaid on the image in white and yellow colors.

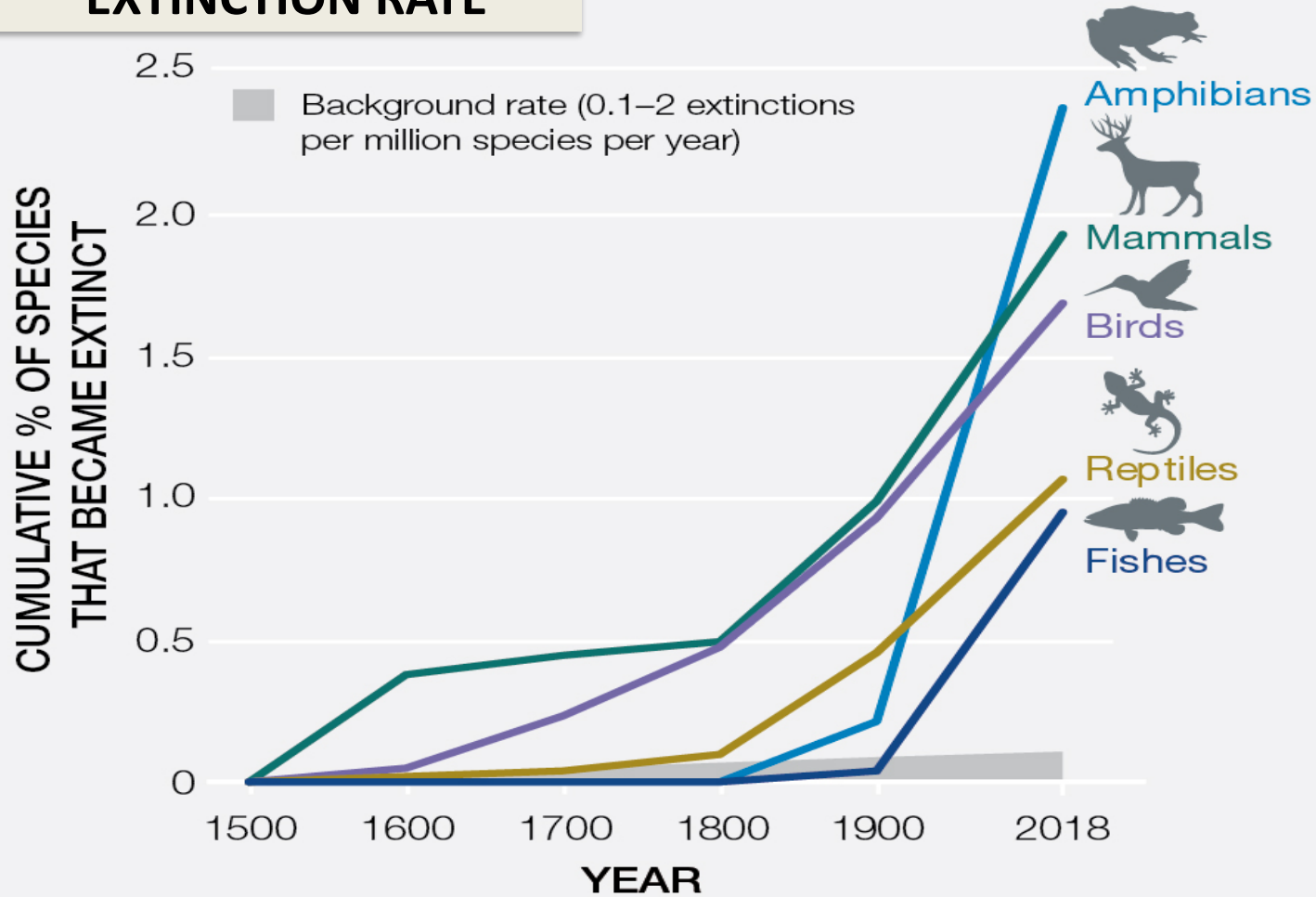
The biosphere and atmosphere, upon which humanity as a whole depends, have been deeply reconfigured by people.

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>
Photocredit Daniel M. Cáceres

The fabric of life is not only getting smaller, it is also getting increasingly thinner, simpler and more frayed:

Fast evolution of organisms in response to human drivers

- . Pesticide and herbicide resistance**
- . Widespread evolution of invertebrates and vertebrates in response to:**
 - . Climate warming**
 - . Pollution**
 - . Invasions**
 - . Hunting and harvesting**
 - . Urbanization & infrastructure development**

Climate warming



Hunting & harvesting



Infrastructure

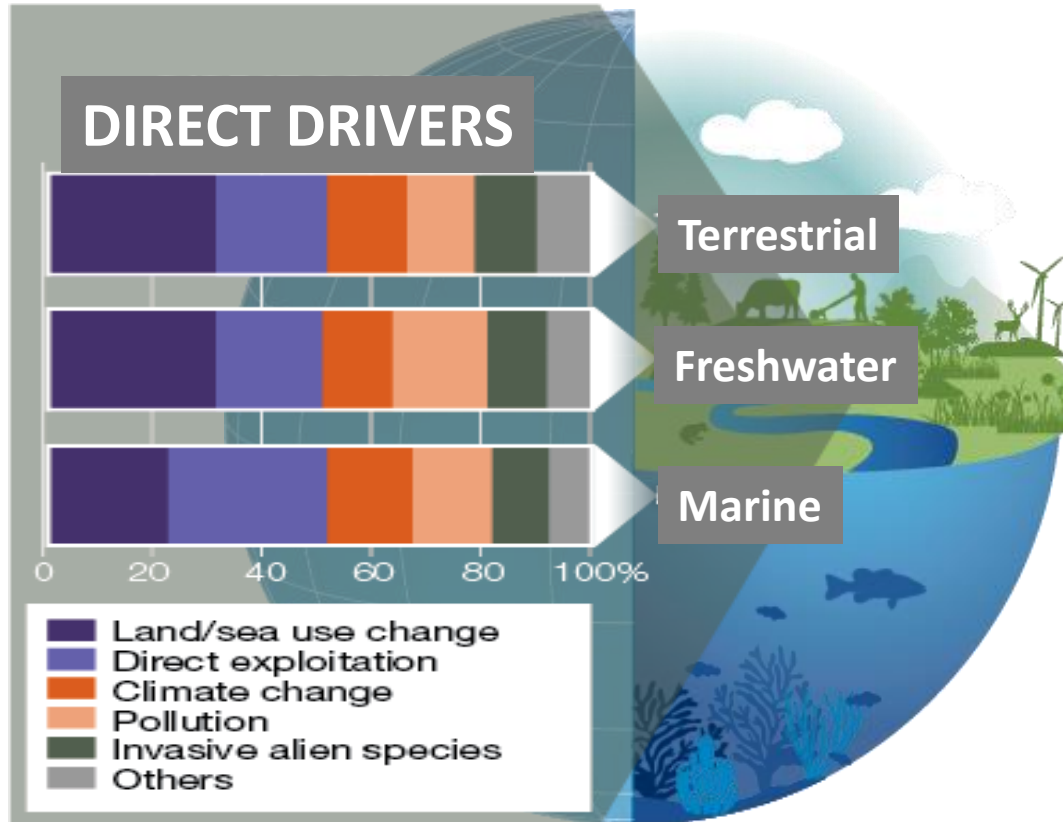


Invasions



Images from A. Hendry

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**.

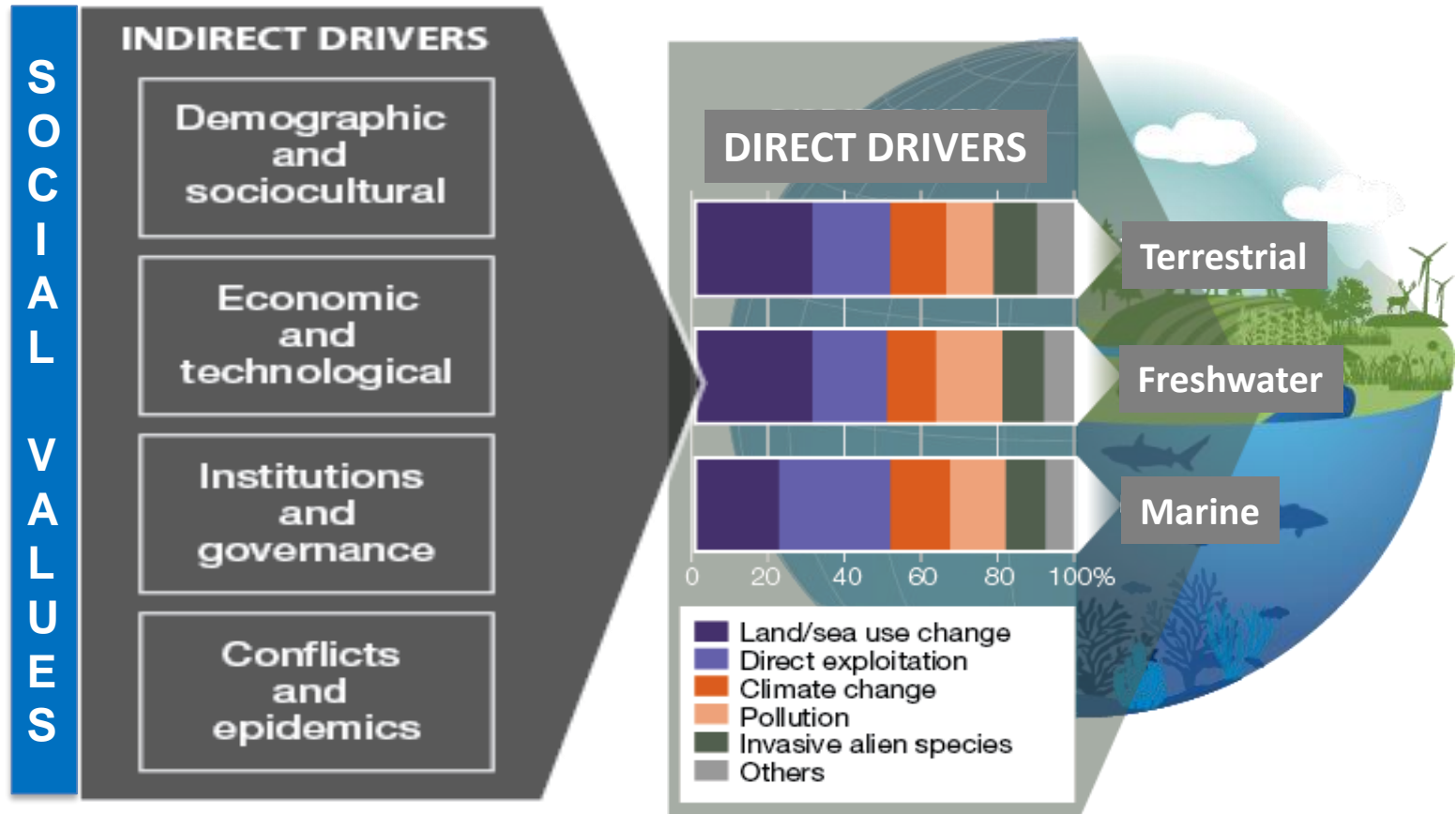




Image: Financial Times

Less GDP accrued per unit of resource extracted in developing and least developed countries.

Consumers do not pay for the true ecological and social costs of the goods they demand.

Most consumers are not even aware of such costs.













Sustainable Development Goals



Aichi Biodiversity Targets



Progress towards the UN Sustainable Development Goals

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

Progress towards the Aichi Biodiversity Targets

Goal	Target (abbreviated)	Progress towards elements of each target			
		Poor	Moderate	Good	Unknown
Drivers	1 Awareness		~ ~		
	2 Planning & accounting	✗	~ ~		
	3 Incentives	✗ ✗			
	4 Production & consumption	✗ ✗			
Pressures	5 Habitat loss	✗ ✗			
	6 Fisheries	✗ ✗			?
	7 Agriculture & forestry	✗ ✗	~		
	8 Pollution	✗ ✗			
	9 Invasive alien species	✗ ✗		✓	?
	10 Coral reefs etc	✗ ✗			
Status	11 Protected & conserved areas		~ ~ ~ ~	✓ ✓	
	12 Extinctions prevented	✗ ✗			
	13 Genetic diversity		~ ~ ~ ~		?
Benefits	14 Ecosystem services	✗			?
	15 Ecosystem restoration				? ?
	16 Access & benefit sharing		~	✓	
Implementation	17 Strategies & action plans		~ ~	✓	
	18 Indigenous & local knowledge		~ ~		? ?
	19 Biodiversity science		~ ~		?
	20 Financial resources		~ ~		

6 & 7. Improvement of certification and co-management in agriculture, forestry and fisheries.

9.1. Identification and prioritization of invasive alien species.

11.1 & 11.2. Spatial extent of protected areas (15 % terrestrial realm; 7% marine realm).

16.1. Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization.

17.1. Definition of National Biodiversity Strategies and action plans.

Plausible futures



SCENARIOS

Economic optimism

- rapid economic growth
- low regulation

Regional competition

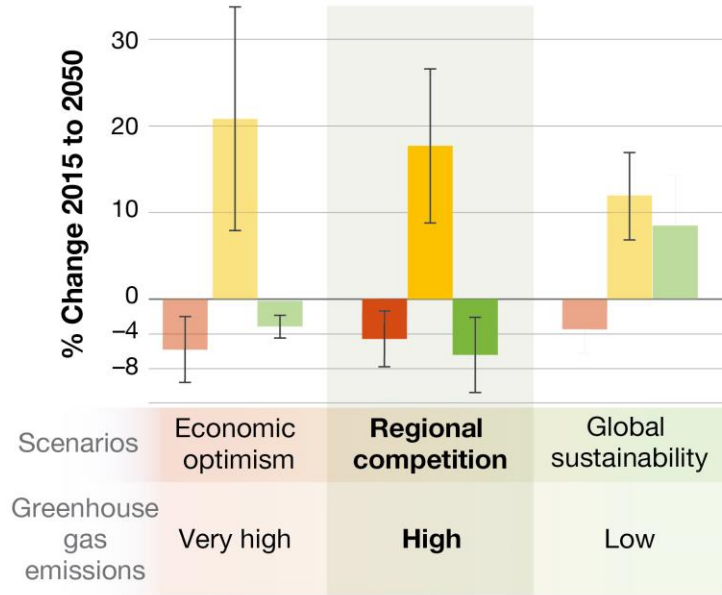
- strong trade and other barriers
- growing gap between rich and poor

Global sustainability

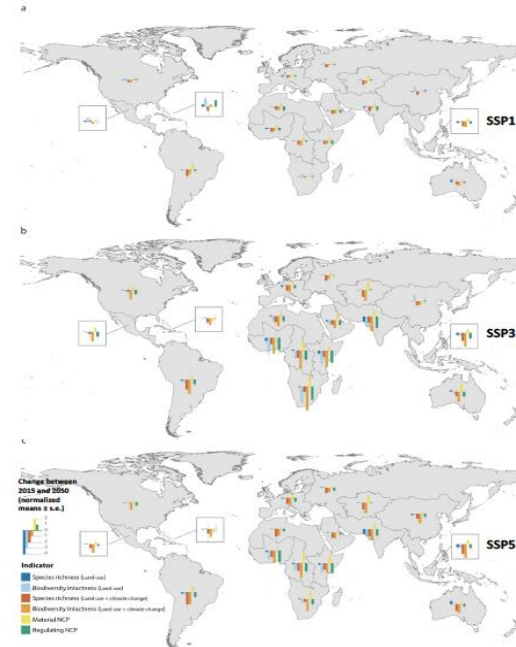
- Proactive environmental policy
- Sustainable production and consumption

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

Global scale



Sub-regional scale



- Species richness
- Material NCP
- Regulating NCP

Options for the futures we want



Dolpo woman sheperd in high pasture and agriculture areas in Nepal . Photocredit Yildiz Aumeeruddy-Thomas

Most internationally agreed policy goals and targets for biodiversity are missed by most countries under business as usual scenarios, i.e., current patterns and future trends of production and consumption.



Indeed, trajectories of most biodiversity indicators under business as usual increasingly deviate from targets over time.

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 & mitigation
- Cross-sectoral planning, incentives

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.

But in the context of regional differences.

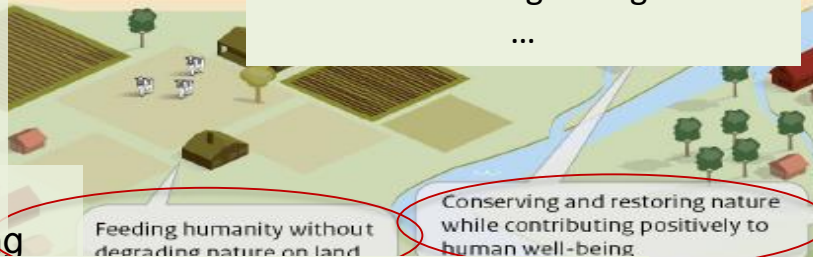
FROM SECTORIAL TO MULTI-SECTORIAL APPROACHES TO SUSTAINABLE PATHWAYS

The nexus in the landscape

Balancing food provision from oceans and coasts with nature protection



Meeting climate goals while maintaining natural contributions to people



Feeding humanity without degrading nature on land

Conserving and restoring nature while contributing positively to human well-being

growing cities while maintaining the nature that sustains them



Maintaining freshwater for nature and humanity



COAST AND OCEANS

- .Multilevel coordination
- .Ecosystem-based approaches
- .Spatial planning
- .Quotas, certification
- .Marine Protected Areas
- .Pollution reduction
- .Climate change mitigation

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CLIMATE ACTION

- .Mitigation options
- .Trade-offs in biofuels
- .Role of reforestation/afforestation

FEEDING HUMANITY

- .Spatial strategy for reconciling production and conservation
- .Multifunctional landscape planning
- .Sustainable practices
- .Integrating knowledge
- .Food supply chain actions
- .Consumers' choices, diets, waste

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FRESHWATER

- .Cross-sectoral and sector-specific
- .Integrated watershed management
- .Wetlands and catchment protection
- .Pollution treatment

PES

- .Decentralized technologies

...

URBAN -

INFRASTRUCTURE

- .Nature-based solutions
- .Rural-urban planning
- NATURE & WELLBEING**
- .Strategy for integrated conservation (public/private)
- .Restoration options
- .Inclusive planning
- .Co-management systems

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A dirt path winds through a lush green field with trees in the background. The path is made of reddish-brown soil and is flanked by tall green grasses and some small plants. The background shows a dense line of trees under a bright sky.

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.

Examples of IPLC Contributions to the Aichi Targets

Target 6: Supported recovery, conservation and sustainability of marine and freshwater fisheries and ecosystems.

Target 7: Diversity of food systems, agrobiodiversity management and conservation

Target 11: Governance, management, protection
~40% of protected areas in IP lands, and a large, but not estimated area in LC.

Target 9: Invasive alien species management, control, monitoring and eradication.

Target 19: Increasing knowledge and technological cross-fertilization of efforts to monitor and manage biodiversity.

Target 12: High concentration of vulnerable species. Governance, controlling poaching, reducing drivers, management.

Target 16: Contributed to the negotiation, establishment of research protocols and procedures.

Sustainable pathways involves addressing the root causes of nature deterioration and fostering transformative change:

- governance that is **inclusive, adaptive, integrated, and informed**
- the **evolution of global financial and economic systems** to build a global sustainable economy
 - Confront **vested interest and perverse incentives**
 - cross-sectorial planning, management, accountability**
 - promote **narratives and societal values for sustainability**

Many societal responses and successful examples, rapid transformative change is already happening in many sectors.

Knowledge and tools available.

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





Thank You!

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