

An Advent series by **Cluster Green**

Shining a light for **Biodiversity**

Four perspectives on the life that sustains us



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development
and Cooperation SDC



The significance of biodiversity and the international efforts to sustain it

30th November 2023



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SDC Network
Disaster Risk Reduction



The SDC Agriculture and
Food Systems Network

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The significance of biodiversity and the international efforts to sustain it

Guest speakers:



Juliet Blum
Scientific Advisor Sustainable Finance
Federal Office for the Environment



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Senior Policy Advisor Environmental
Finance
Federal Office for the Environment

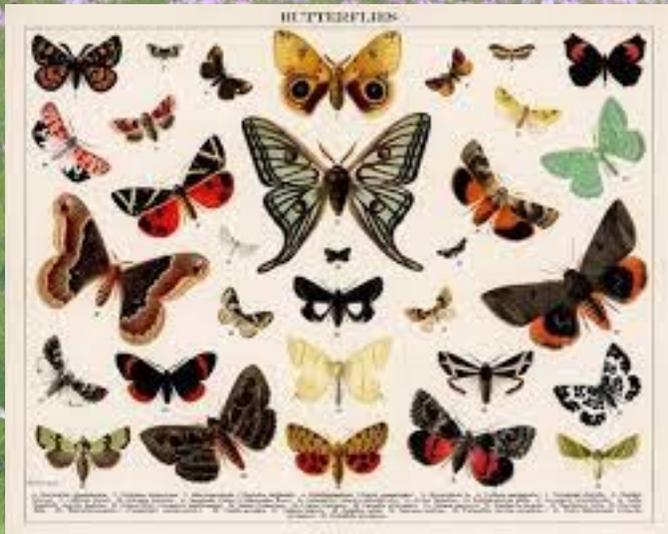


AGENDA

- What is biodiversity
 - Mentimeter (Word Cloud)
- What is the state of biodiversity (IPBES)
- What are the drivers of biodiversity loss (IPBES)
- Link biodiversity and sustainable development and the economy: Natural Capital and Ecosystem Services (Natural Capital Coalitions & IPBES)
- Dependencies and impact, double materiality (WEF, ENCORE, Allianz)
 - Mentimeter (Quiz the most dependent.)
- International Biodiversity Regime (Slide WAN)
- CBD Target 18, 19, 20 (CBD)
- Biodiversity finance (TNC/Paulson Report, CBD Panel of Experts, OECD, WEF, Desgupta etc.)
- How to finance biodiversity: Options for the private sector and the public sector (Slides LAL)

What is biodiversity?

“The variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part. This includes variation in genetic, phenotypic, phylogenetic, and functional attributes, as well as changes in abundance and distribution over time and space within and among species, biological communities and ecosystems.” (IPBES)



Drivers of biodiversity loss



Land & sea use change | pollution | climate change | invasive species | direct exploitation



The state of biodiversity

Ecosystem loss

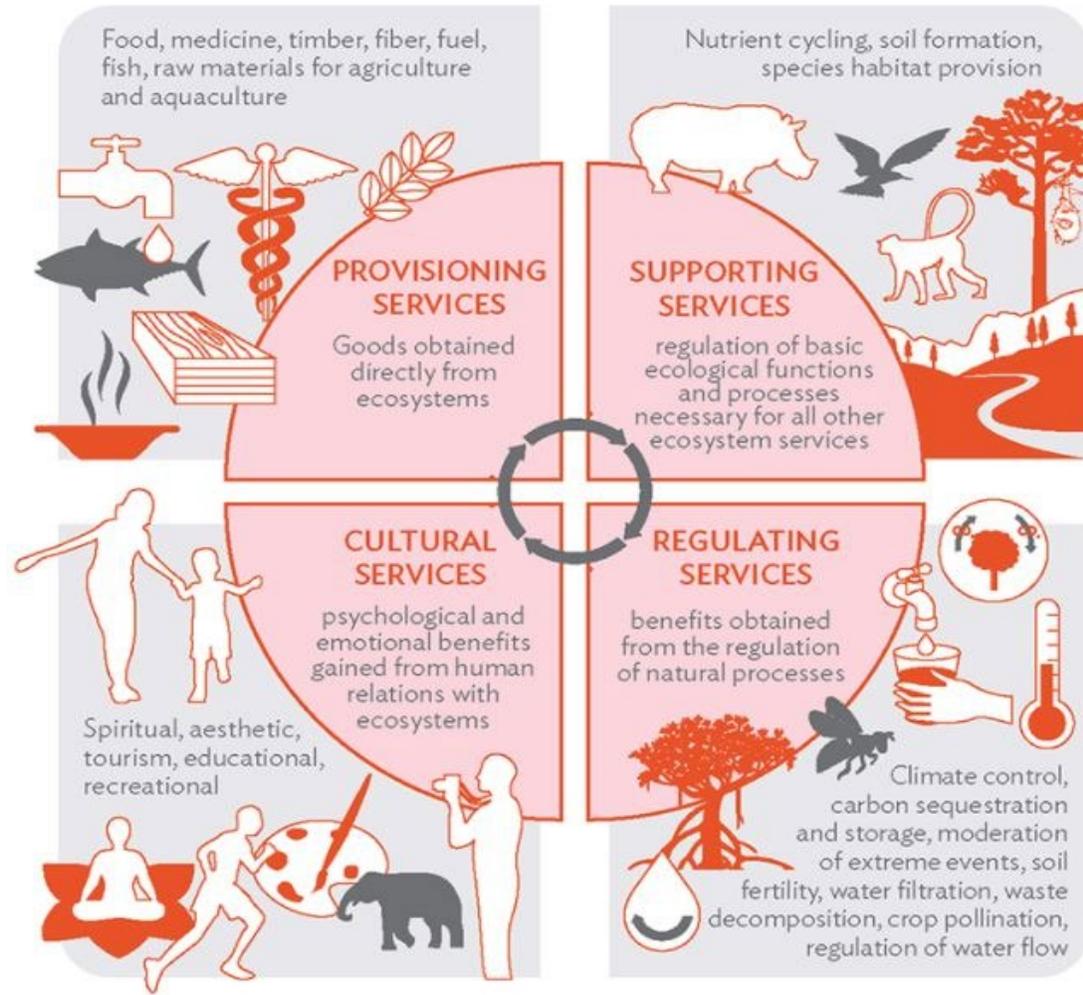
- ~50% overall compared to the original state
- 30% freshwater ecosystems globally

Species loss

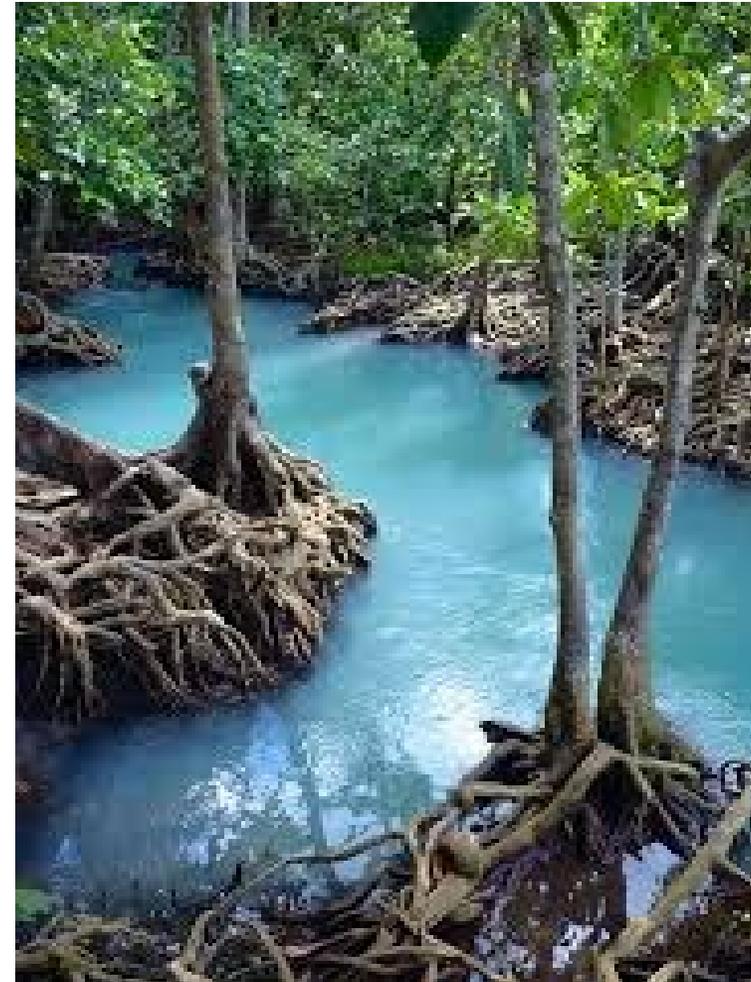
- ~25% of all species
- 1mio species threatened with extinction in the near future
- 80% of populations of freshwater species
- >20% of amphibians



Ecosystem Services



Mangrove forest



Natural Capital and Ecosystem Services

Directional trend
50-year global trend

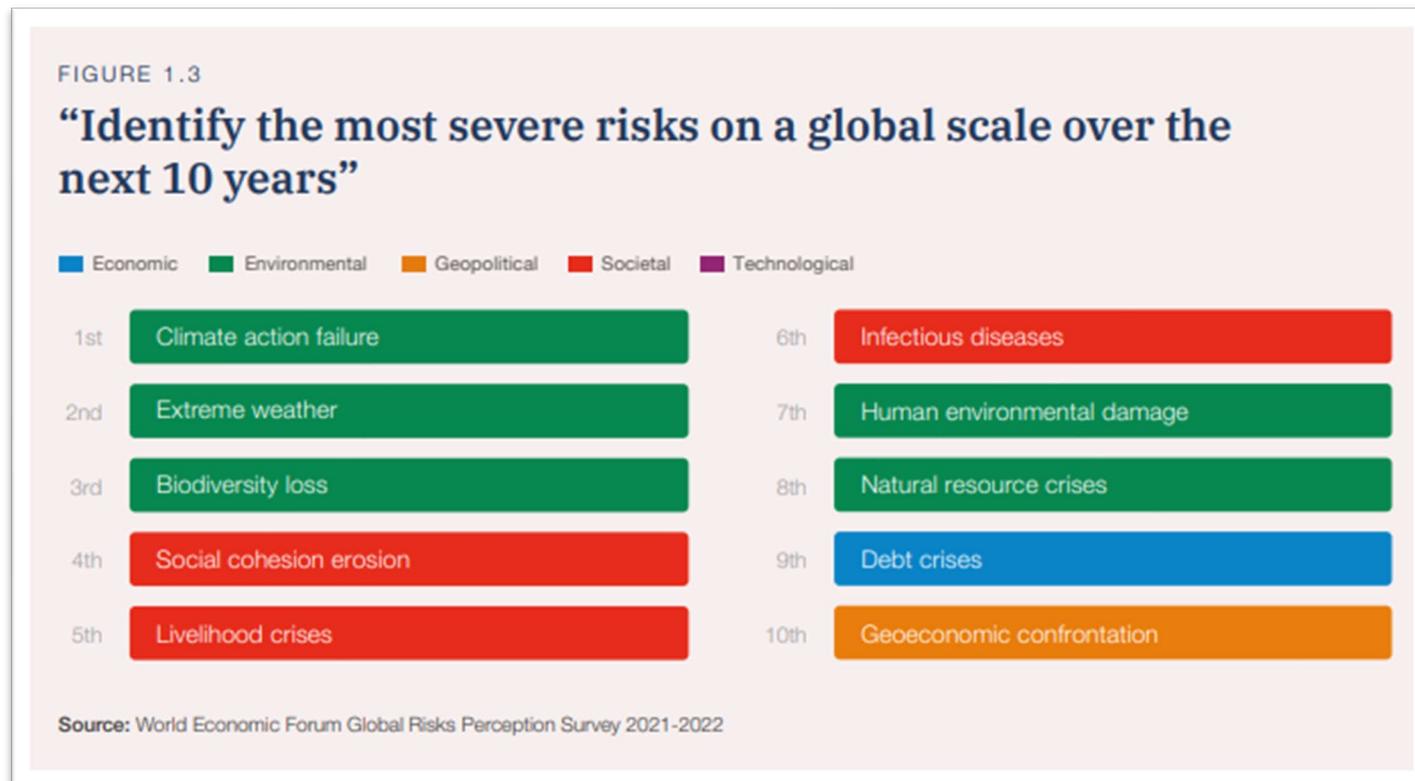
| Nature's contributions to people | | Decrease | No change | Increase | Across regions |
|---|--|----------|-----------|----------|----------------|
|  | 1 Habitat creation & maintenance | ↓ | | | Consistent |
|  | 2 Pollination and dispersal of seeds | ↓ | | | Consistent |
|  | 3 Regulation of air quality | | | ↘ | Variable |
|  | 4 Regulation of climate | | | ↘ | Variable |
|  | 5 Regulation of ocean acidification | | → | | Variable |
|  | 6 Regulation of freshwater quantity | | | ↘ | Variable |
|  | 7 Regulation of freshwater quality | | | ↘ | Consistent |
|  | 8 Regulation of soils | | | ↘ | Variable |
|  | 9 Regulation of hazards & extreme events | | | ↘ | Variable |
|  | 10 Regulation of organisms | ↓ | | | Consistent |
|  | 11 Energy | | | ↗ | Variable |
|  | 12 Food & feed | ↓ | | ↗ | Variable |
|  | 13 Materials & assistance | | | ↗ | Variable |
|  | 14 Medicinal, biochemical, & genetic resources | ↓ | | | Consistent |
|  | 15 Learning & inspiration | ↓ | | | Consistent |
|  | 16 Physical, & psychological experiences | | | ↘ | Consistent |
|  | 17 Supporting identities | | | ↘ | Consistent |
|  | 18 Maintenance of options | ↓ | | | Consistent |

- 14 out of 18 ecosystem services are degraded or declining, only services linked to material benefits are increasing
- While global GDP per capita increased by more than 60 per cent between 1992 and 2014, natural capital stocks per capita declined by around 40 per cent

→ Future economic growth and human well-being are in jeopardy

Economic value of ecosystem services

- Half of the world's GDP - \$44 trillion - is highly or moderately dependent on nature.
- According to the WEF biodiversity loss and the collapse of ecosystems are among the five greatest threats facing humanity in the next 10 years.



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Agriculture (\$2.5 billion)



Construction (\$4 billion)



Food & beverage (\$1.4 billion)



ENCORE

ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure)

ENCORE highlights how businesses may be exposed to accelerating environmental change. Start by selecting any economic sector or production process below to explore natural capital risks. Please note that, in order to avoid double-counting, ENCORE only lists direct potential dependencies and impacts of production processes on ecosystem services and natural capital assets, excluding dependencies and impacts that occur through the supply chain. This means, for example, that the potential dependencies listed for the 'Production of paper products' process, excludes the potential dependencies related to growing and harvesting wood products, which are covered under forestry-related processes. The same applies to potential impacts of 'Production of paper products'.



1. Sector ?
Energy



2. Sub-industry ?
Coal & Consumable Fuels



3. Production process ?
Mining



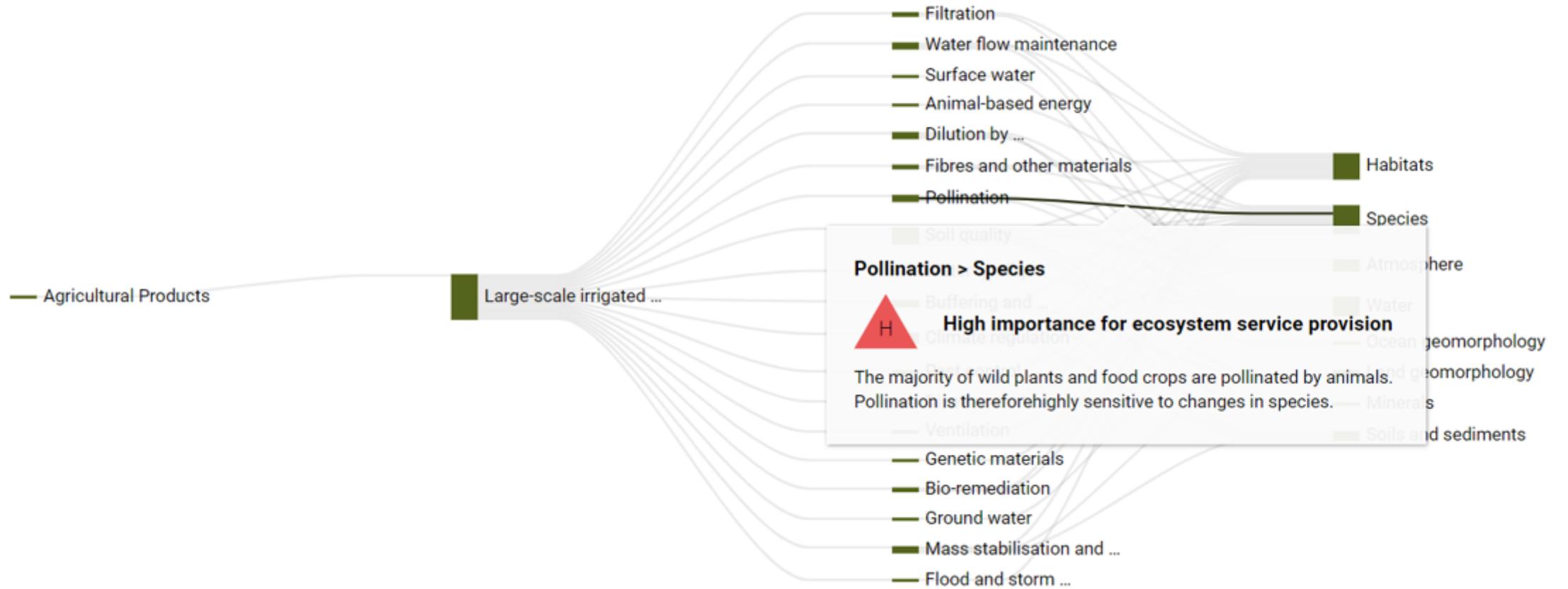
Dependencies ?

Impacts ?

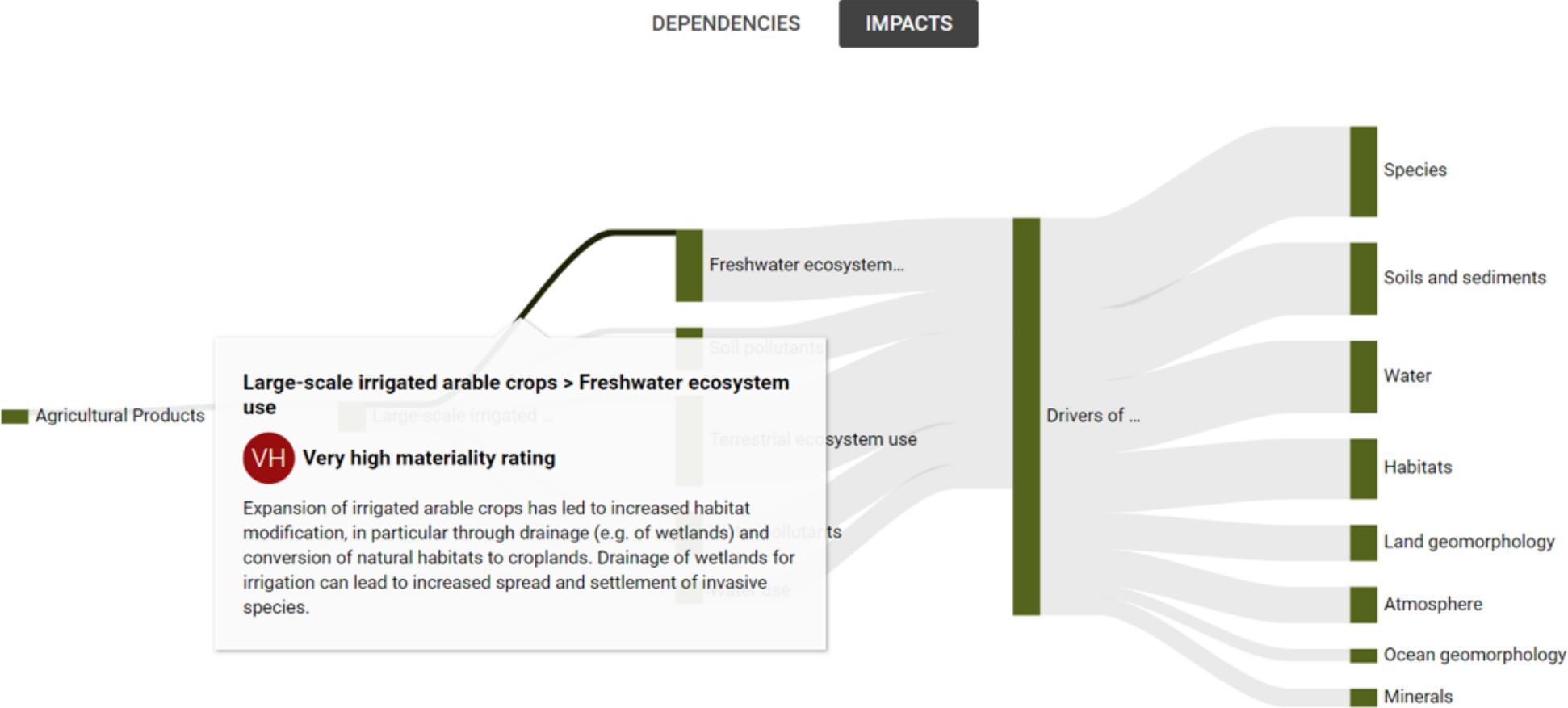
[ENCORE \(encorenature.org\)](https://encorenature.org)

ENCORE - Nature Risk Assessment

DEPENDENCIES IMPACTS



ENCORE - Nature Risk Assessment



The International Biodiversity Regime

- **CBD Convention on Biological Diversity (1992)**
- **Nagoya Protocol (2010)**
Access to genetic resources and fair and equitable sharing of benefits
- **Cartagena Protocol (2000)**
Biosafety
- **Ramsar Convention (1971)**
Wetlands
- **CITES Convention (1973)**
Trade in Endangered Species
- **CMS Convention (1979)**
Conservation of Migratory Species
- **IWC-International Whaling Commission (1946)**
Regulation of Whaling
- **IPPC-International Plant Protection Convention (1951)**
- **ITPGRFA-International Treaty on Plant Genetic Resources for Food and Agriculture (2001)**
- **UNESCO World Heritage Convention (1972)**
Protection of the world's cultural and natural heritage

- **Berne Convention(1979)**
Conservation of European wild flora and fauna and their natural habitats
- **Florence Convention**
European landscape convention
- **ACAIE-Agreement**
Agreement on the Conservation of African-Eurasian Migratory Waterbirds

- **IUCN**
- **IPBES**
Scientific Bodies

- **Climate**
- **Agriculture**
- **Waste, Pollution and Chemical**
- **Forests**
- **Water**
- **Others**

CBD Global Biodiversity Framework Targets 18

The GBF's mission is to halt and reverse biodiversity loss to put nature on a path to recovery for the benefit of people and planet by 2030 .. with the vision of living in harmony with nature by 2050

Identify by 2025, and eliminate, phase out or reform incentives, including subsidies, harmful for biodiversity, in a proportionate, just, fair, effective and equitable way, while substantially and progressively reducing them by at least \$500 billion per year by 2030, starting with the most harmful incentives, and scale up positive incentives for the conservation and sustainable use of biodiversity.

CBD Global Biodiversity Framework Targets 19

Substantially and progressively increase the level of financial resources from all sources, in an effective, timely and easily accessible manner, including domestic, international, public and private resources, in accordance with Article 20 of the Convention, to implement national biodiversity strategies and action plans, mobilizing at least \$200 billion per year by 2030, including by:

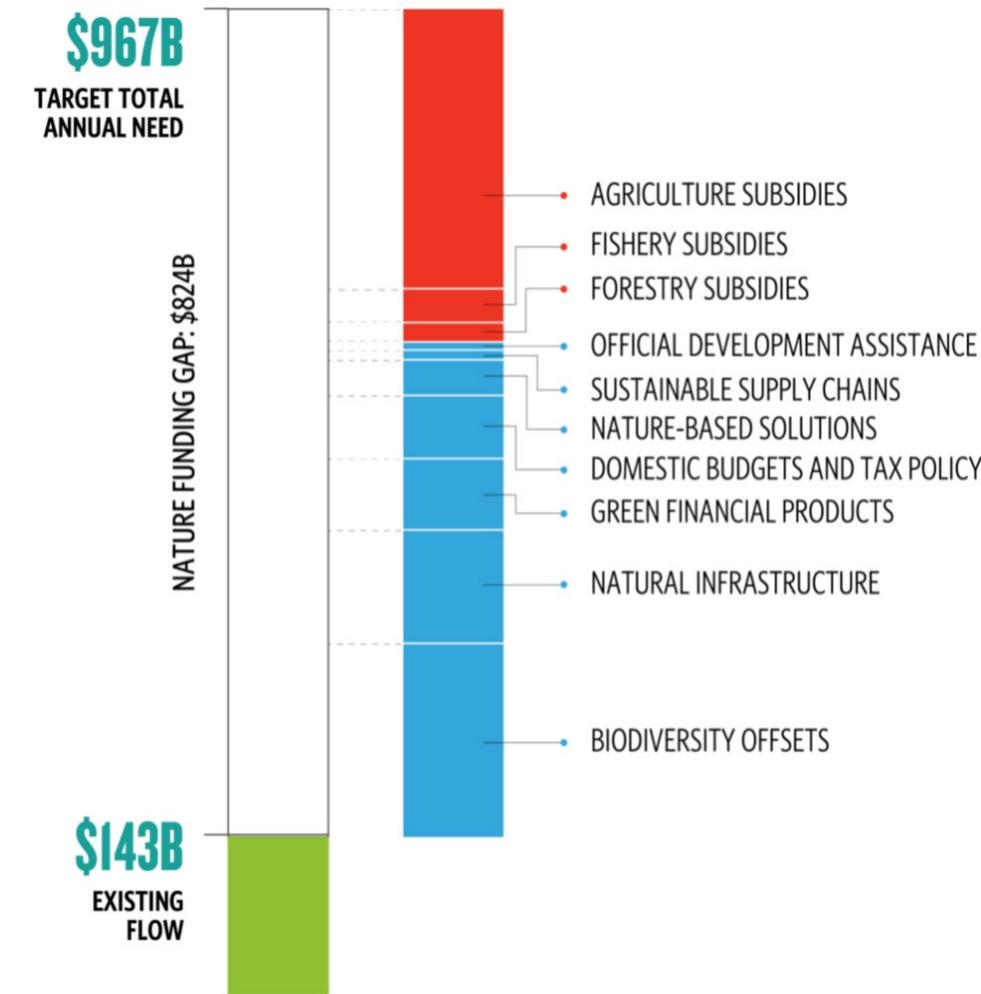
(a) Increasing total biodiversity-related international financial resources from developed countries, including official development assistance, and from countries that voluntarily assume obligations of developed country Parties, to developing countries, in particular the least developed countries and small island developing States, as well as countries with economies in transition, to at least \$20 billion per year by 2025, and to at least \$30 billion per year by 2030;

CBD Global Biodiversity Framework Targets 20

Strengthen capacity-building and development, access to and transfer of technology, and promote development of and access to innovation and technical and scientific cooperation, including through South South, North-South and triangular cooperation, to meet the needs for effective implementation, particularly in developing countries, fostering joint technology development and joint scientific research programmes for the conservation and sustainable use of biodiversity and strengthening scientific research and monitoring capacities, commensurate with the ambition of the goals and targets of the Framework.



Biodiversity finance



- Economic and fiscal policy instruments
 - Taxes and fees
 - Tradable permits and offsets
 - Subsidies and payments
 - Deposit refund schemes
- Financial instruments
 - Grants and transfers
 - Concessional (or subsidised) loans
 - Commercial loans
 - Equity and own funds
 - Guarantees
 - Insurances.

Biodiversity Finance

- Finance can and must be mobilised to better protect and manage nature, and to boost sustainable production and consumption:
- -Two general measures for the public and private financial sector:
 - Greening the financial system: Direct financial flows away from activities/projects with negative impacts on biodiversity.
 - Financing green: Financing projects that contribute to the conservation, restoration and sustainable use of biodiversity.

Biodiversity Development Finance

-   was initiated 10 years ago in response to the global need to divert more finance from all possible sources towards global and national biodiversity goals.
- BIOFIN works in 41 soon more than 130 countries with governments, civil-society, vulnerable communities, and the private sector to catalyse investments in nature.
- Switzerland (FOEN) has been supporter from the start and is currently funding BIOFIN's work in Kazakhstan and Kirgizstan e.g. on a national strategy of the country's biodiversity and CO2 offset markets or on repurposing subsidies harmful to biodiversity or with USD 1 Million over two years.

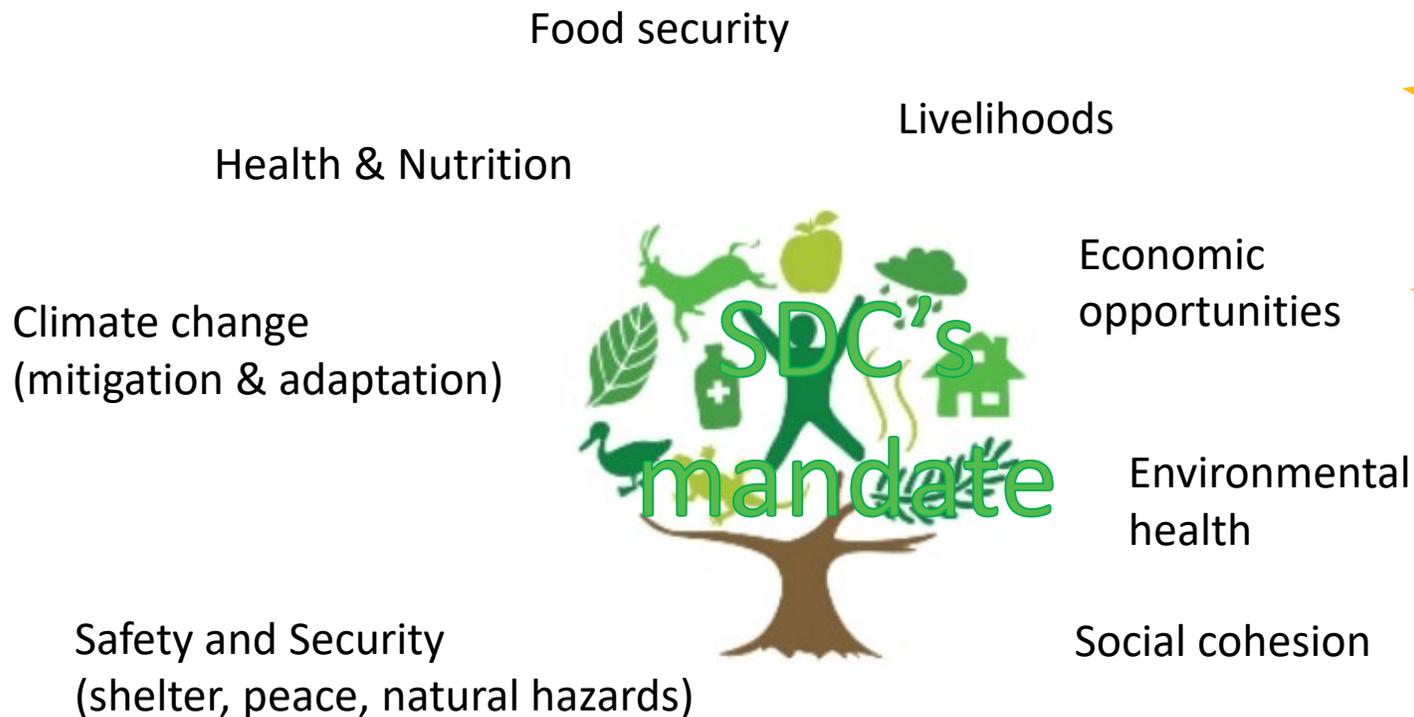


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Q&A on FOEN presentation

Why is biodiversity important ... for SDC ?



- Unequally distributed & accessed,
- Unsustainably used across space, time & societies

Conservation vs. Restoration vs. Sustainable use

Open mic – what about you ?

Outlook

Candle #2 – Thursday, 07.12., 12:05 – 13:00h - Diversity feeds the world – seeds for resilient and healthy food systems

Guest speakers: Simon Degelo and Sonja Tschirren, Swissaid, and Amrit Riar, FiBL

How biodiversity supports nutrition and climate change adaptation – practical experiences from Africa, Asia and Latin America, capitalizing on agrobiodiversity for improving diets and climate resilience, from the project CROPS4HD.

Candle #3 – Thursday, 14.12., 12:05 – 13:00h - Tropical Forests beyond biodiversity – what is in it for the climate?

Guest speakers: Mélanie Feurer, Bern University of Applied Sciences and Federico Cammelli, ETH Zürich

Tropical Forests beyond biodiversity: a debate on global relevance, national sovereignty, and local options.

Candle #4 – Tuesday, 19.12., 12:05 – 13:00h - When cinema looks to nature

Guest speaker: Adelina von Fürstenberg, President a.i. Art For the World

How art can help (re-)connect human beings with nature to preserve biodiversity



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