

COURSE N.2: Sustainable Destination Management

Measuring and monitoring environmental impacts

Module N.4: Ecological Impacts and Holistic Environmental Management



Federica Bosco – ETIFOR Valuing Nature

About the Speaker

Sustainable Tourism Manager | Etifor
Valuing Nature

Official Global Sustainable Tourism
Council Trainer

GSTC Italy Working Group Vice-Chair



federica.bosco@etifor.com



www.etifor.com



www.linkedin.com/in/federica-bosco/



About Etifor | Valuing Nature



At Etifor,
we put **nature at the heart of
decision - making** by
developing **science-based
solutions**.

We are a highly specialised **environmental consulting
company**: our multidisciplinary team improves the economic,
environmental and social benefits of policies, projects and
investments.



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Etifor è uno spin-off
dell'Università di Padova



Content

1. Nature and its relation with tourism and the economy
2. The Global Goal for Nature
3. Five main drivers of biodiversity loss (impacts and actions)
4. Steps forward



Why is nature important to tourism?

More than **80%** of the value of tourism goods and services relies on nature's resources and ecosystems

Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy (World Economic Forum, 2020)

Exploration of nature accounts for over **half of all tours**, with nature-based tourism growing in popularity and predicted to generate **USD 665 billion annually** by 2030

Ecotourism Market Size, Share & Growth 2022-2030 (Grand View Research, 2020)

Why is nature important to tourism?



Ecosystems
and wildlife



Freshwater



Natural
materials



Energy



Climate
regulation

The need for a Nature Positive Economy

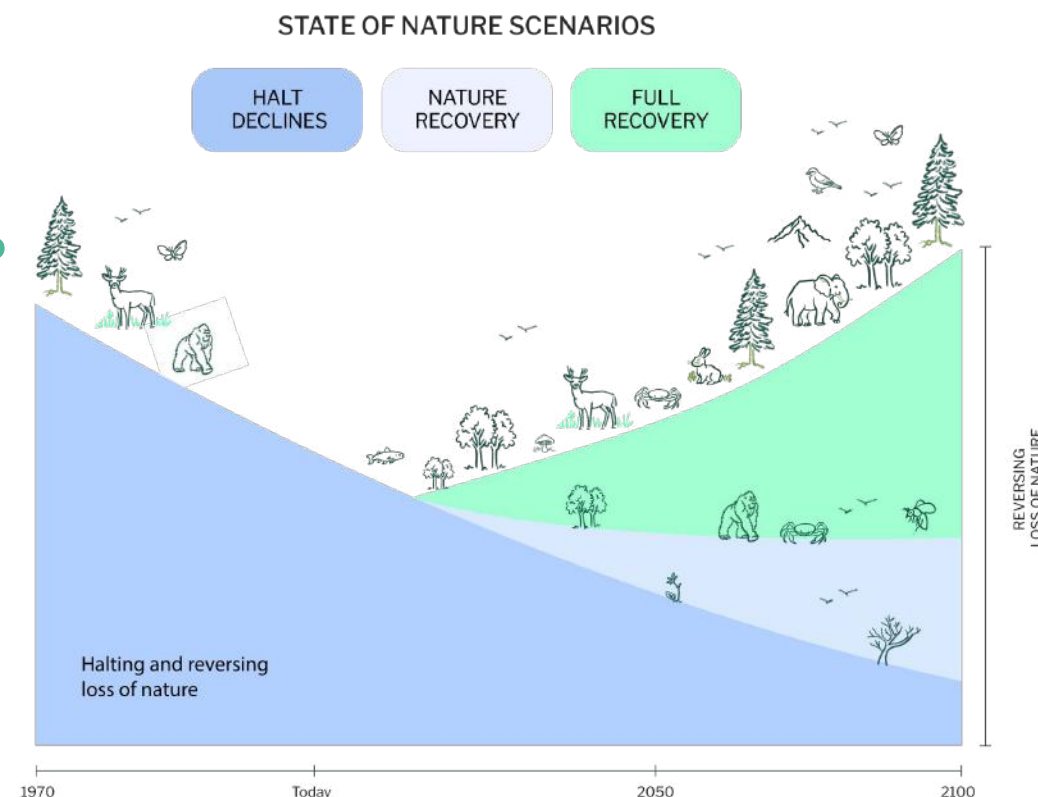
Since 1970, there has been an average decline of **73%** in monitored wildlife populations

Both the loss of genetic diversity, and the decline in the functional integrity of the biosphere, have **exceeded** their safe levels.



Global Goal For Nature

Set at the COP15 in 2022 to halt and reverse biodiversity loss by 2030
with a full recovery by 2050



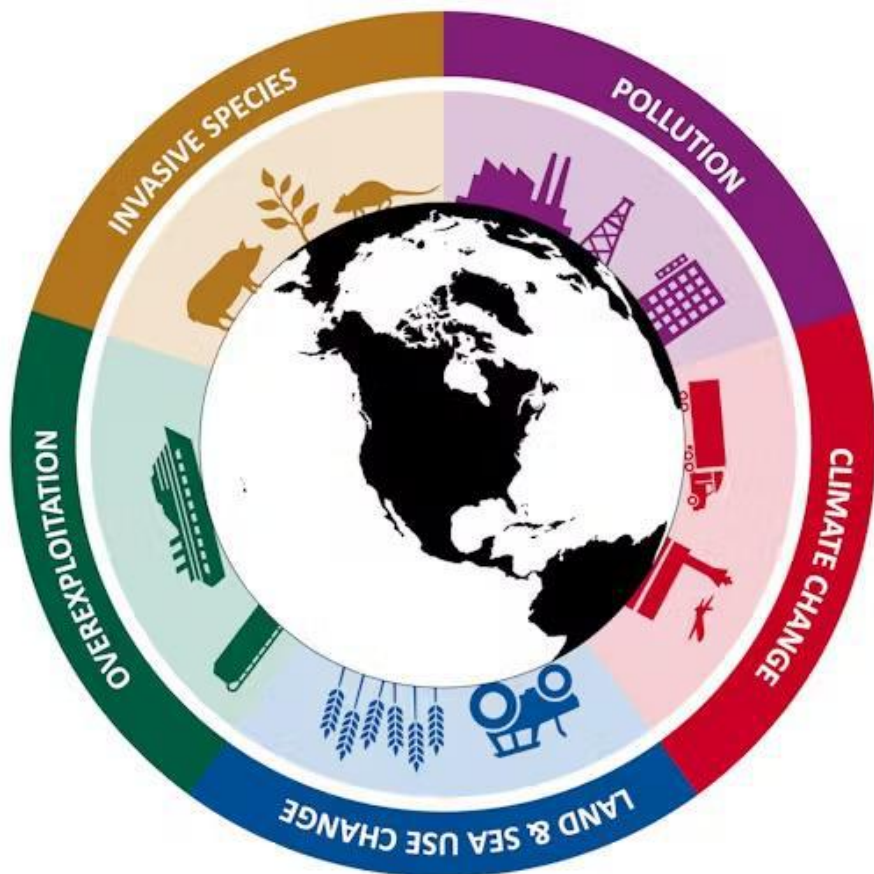
Sources: WWF (2024); Azote for Stockholm Resilience Centre, Stockholm University (2023); Locke, Harvey, et al., (2021); GoNaturePositive!(2024)

Nature Positive tourism

NP Tourism means that the net results of all tourism economic activities combined, leads to an absolute increase in nature to the point of full recovery (GoNP!, 2024)



The Five Main Drivers of Biodiversity Loss

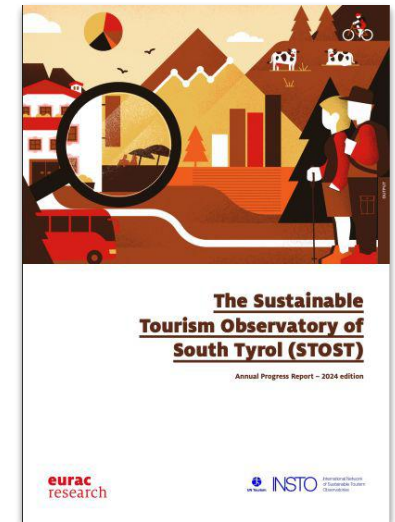
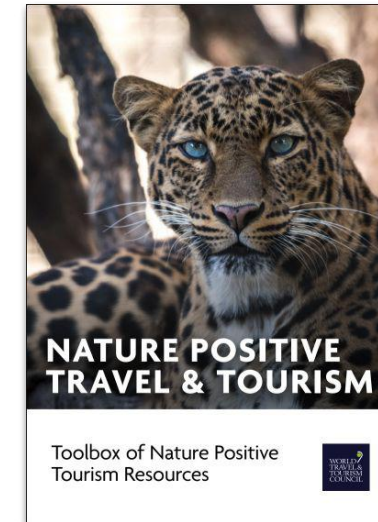
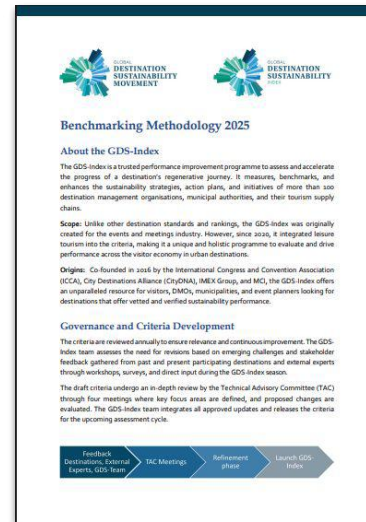
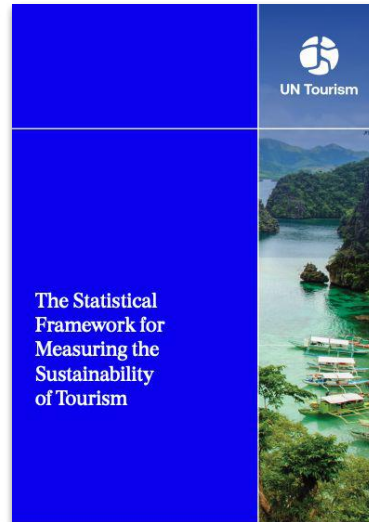
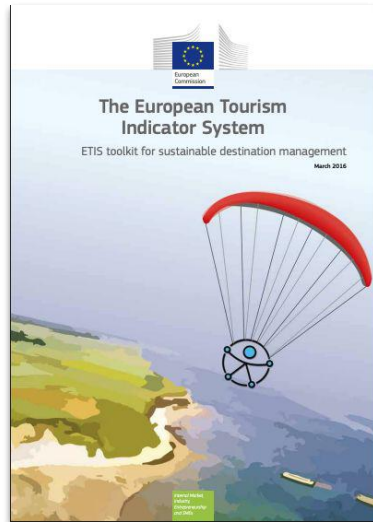
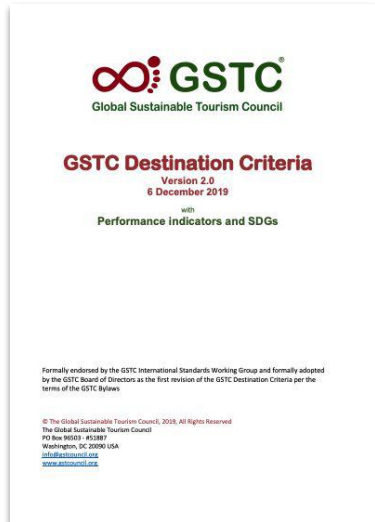


Source: Defenders of Wildlife (2022) based on
Global Assessment Report (IPBES,2019)

Driver	Category	Mean Pressure Index (0-10)	Frequency
Land/Water/Sea use change	Terrestrial use	8	4
Land/Water/Sea use change	Freshwater use	8,3	3
Land/Water/Sea use change	Marine use	6,8	12
Resource Use	Water use	7,6	22
Climate change	GHG emissions	9	18
Pollution	Water pollutants	6,6	31
Pollution	Soil pollutants	6,3	27
Pollution	Solid waste	6,1	34
Invasives and Other	Disturbances	6,8	13
Invasives and Other	Biological alterations	7,5	11

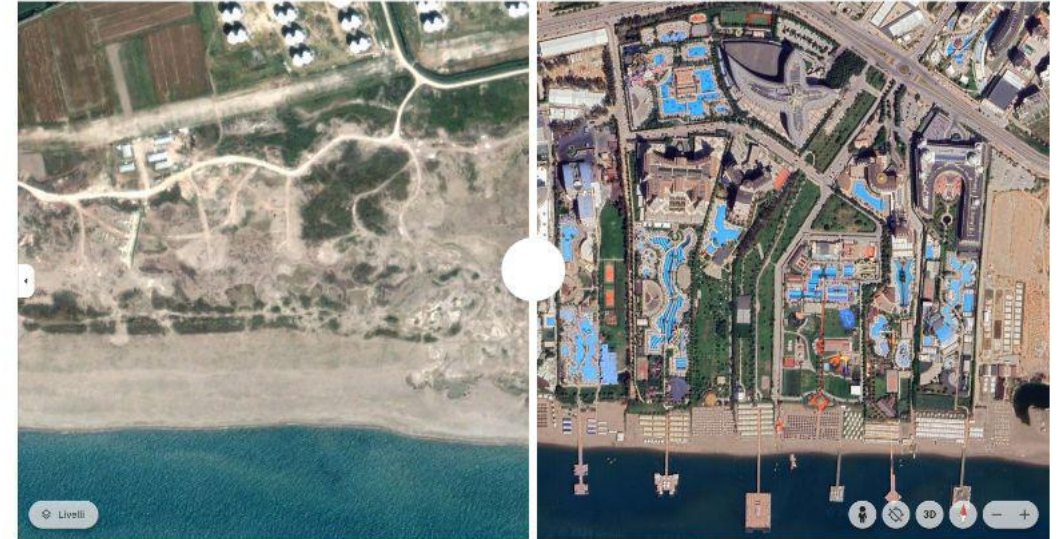
Source: Etifor (2024) based on SBTN Materiality Screening Tool v1.
Analysis based on 43 tourism processes.

Measuring and monitoring environmental impacts



Tourism Impacts On Nature: Land And Sea Use Change ✖

- **Habitat** destruction / fragmentation
- **Deforestation**
- Loss of **coastal habitats** including coral reefs & mangroves
- Unsustainable food sourcing, farming and agriculture **along the value chain**



Source: Google Earth Engine timelapse

Tourism Impacts On Nature: Land And Sea Conservation ✓

- Encourage the greater **protection** of land and sea by **policymakers**
- Promote **Citizen Science** initiatives
- **Connect** people with nature
- **Finance** environmental protection
- Support relevant community-based /nonprofits **projects**

Over the past five years tourism has generated **US\$27 million** in African Parks which has contributed directly to operation of the parks.



Source: African Parks

Tourism Impacts On Nature: Resource Exploitation ✗

- **Food** over-consumption
- Sourcing of **building materials**
- Over/wrong use of tourist **paths**
- **Harm** to individual animals and species
- **Human-wildlife** conflict
- «Purchasing» of **wildlife souvenirs**



Source: WWF Germany

Tourism Impacts On Nature: Resource Conservation

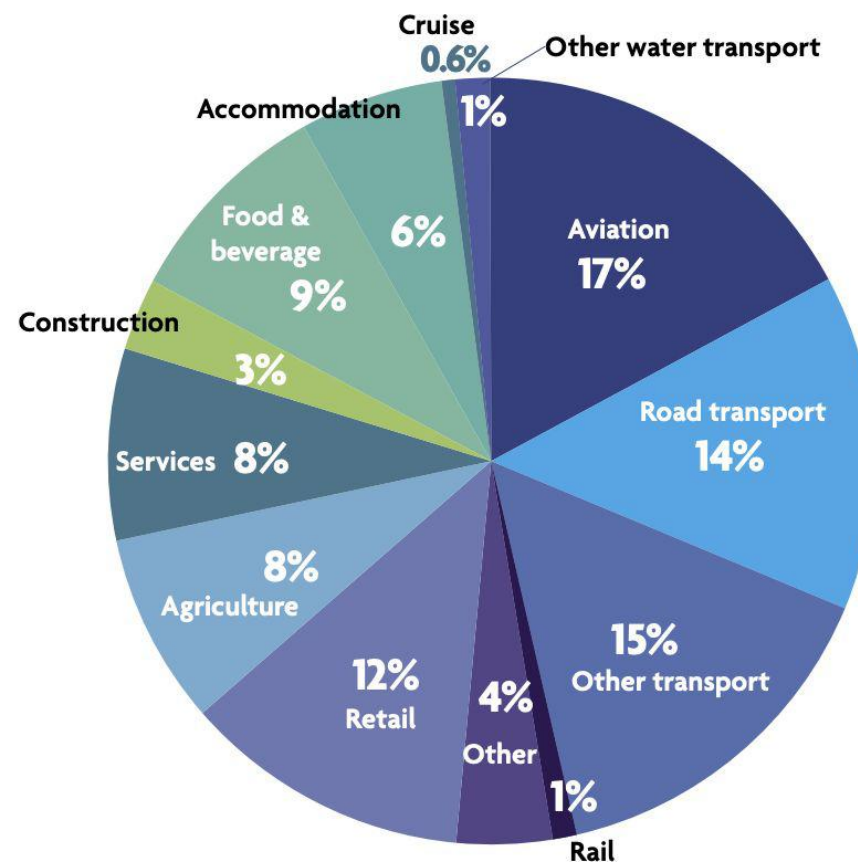
- Protect **key species**
- Support a campaign to engage travellers/ suppliers to encourage responsible **purchasing and sourcing**
- Ensure high animal **welfare standards**
- Support **lifetime care** for rescued/ confiscated animals



Source: Marine Savers by Four Seasons Resorts

Tourism Impacts On Nature: Climate Change ✖

- High-emissions of **greenhouse gases** from different scopes:
- Transports
- Laundry services
- Waste disposal
- F&B supply and production
- Building energy consumption
- Data centre cooling



Source: Net Zero Roadmap for Travel & Tourism (WTTC, 2021)

Tourism Impacts On Nature: Climate Mitigation ✓

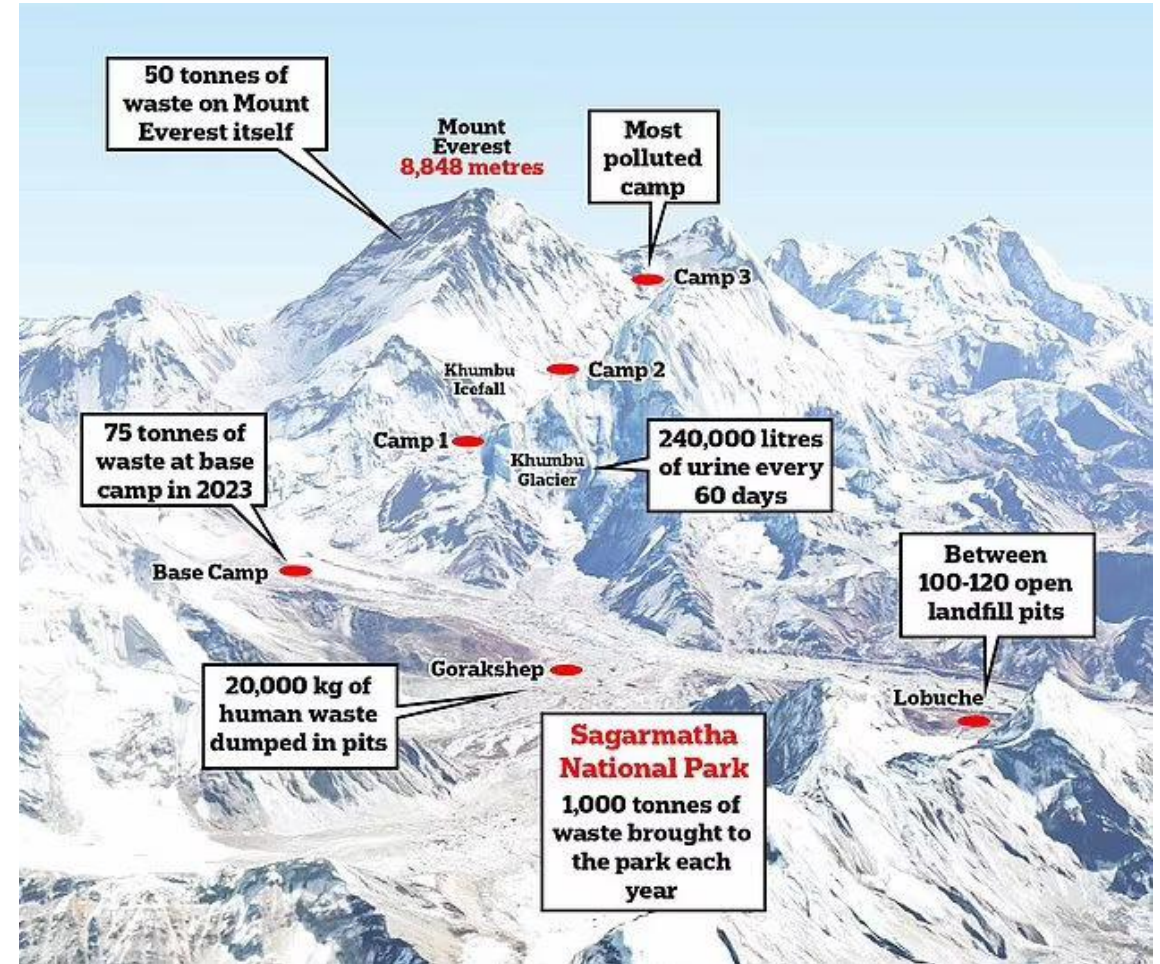
- **Carbon compensation** projects
- Invest in marine ecosystems that store large quantities of '**blue carbon**' in both plants and sediment
- Target resources towards terrestrial ecosystems that store large quantities of '**green carbon**' in both plants and soil



Source: WOWhature

Tourism Impacts On Nature: Pollution ✗

- Marine **plastic pollution** affecting marine species and seabirds and entering human food chains
- **Chemical poisoning** of local animal and plant life
- **Over-littering** in tourist destinations
- Exceeding of **wastewater** treatment capacity
- Disturbance of local animal and marine life through artificial **light and noise**



Source: Mail Online (2024)

Tourism Impacts On Nature: Pollution reduction ✓

- Advocate for sustainable and **responsible food production** without the use of pesticide and fertilisers
- Support local **projects** to reduce or remove litter, plastic waste, etc.
- Highlight **water quality** in the sea or in lakes and river (e.g. Blue Flag Certification)



Source: Garda Trentino

Tourism Impacts On Nature: Invasive and Non Native Species ✗

- **Destruction** of local ecosystems and reduction of endemic species
- Disruption of **food chains**
- **Disease introduction** (human and animal)
- Economic impacts

Bringing a boat to BC?

Watercraft inspection

stops the spread of invasive mussels

Zebra and Quagga Mussel Distribution Map

If you have visited a red or gray shaded province or state in the past 30 days,

DO NOT attempt to clean the watercraft yourself.

Your watercraft may require decontamination - its free.

Call 1-877-952-7277
(RAPP line)

Scan square with your phone camera for more information

www.columbiashuswapinvasives.org

#DONTMOVEAMUSSEL

Watercraft inspection stations (southern BC)

Source: Revelstoke

Tourism Impacts On Nature: Invasive and Non Native Species

- **Ensure** suppliers and visitors do not introduce invasive or non-native species into the local environment
- Support local NGOs and community groups, or national authority **activities** such as clearing of invasive plants in national parks.

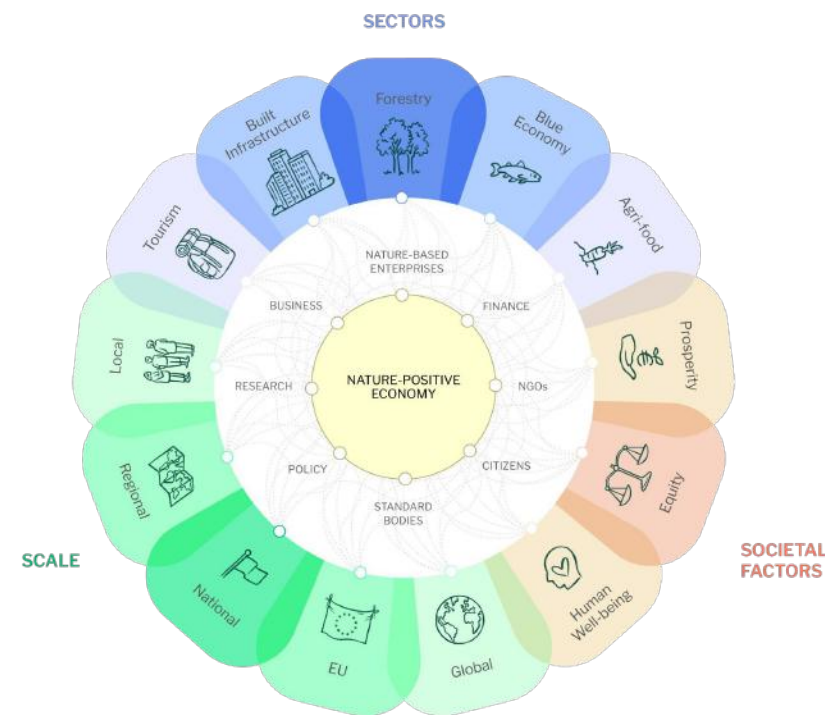


Source: Hawkhill

What kind of actions are needed

Businesses, governments, and other **actors** need to take **actions** across multiple scales and **sectors**, aligning with **societal factors** to improve social-ecological well-being and equity:

- **Reducing nature negative impacts:** identify and reform environmentally-harmful policies, subsidies and activities
- **Increase nature positive actions:** put in place policies, subsidies and finance to support nature restoration and regeneration. Invest in nature-based solutions and enterprises.
- **Action towards transformative change:** long-term actions towards systems-wide change include better approaches for valuing nature and measuring progress beyond arrivals,



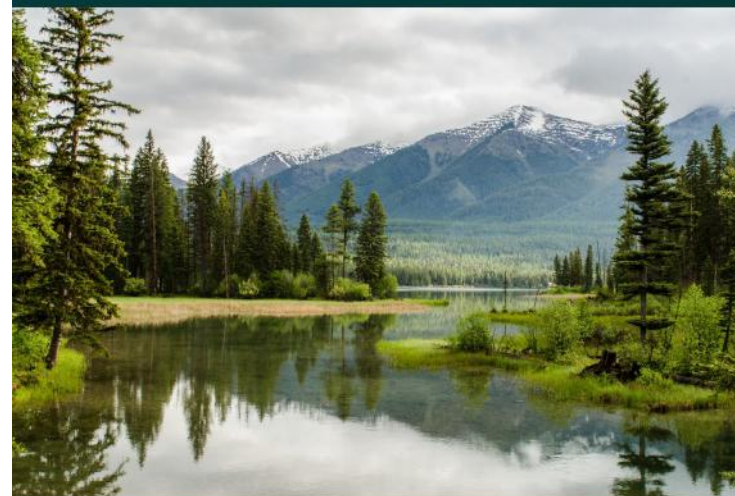
Source: GoNaturePositive!

Destination stewardship

“Destination stewardship is a process by which local communities, governmental agencies, NGOs, and the tourism industry take **a multi-stakeholder approach to maintaining the cultural, environmental, economic, and esthetic integrity of their country, region, or town**. In other words, to ensure that the destination retains and enhances the distinctive attributes that appeal to both residents and tourists.” (GSTC)

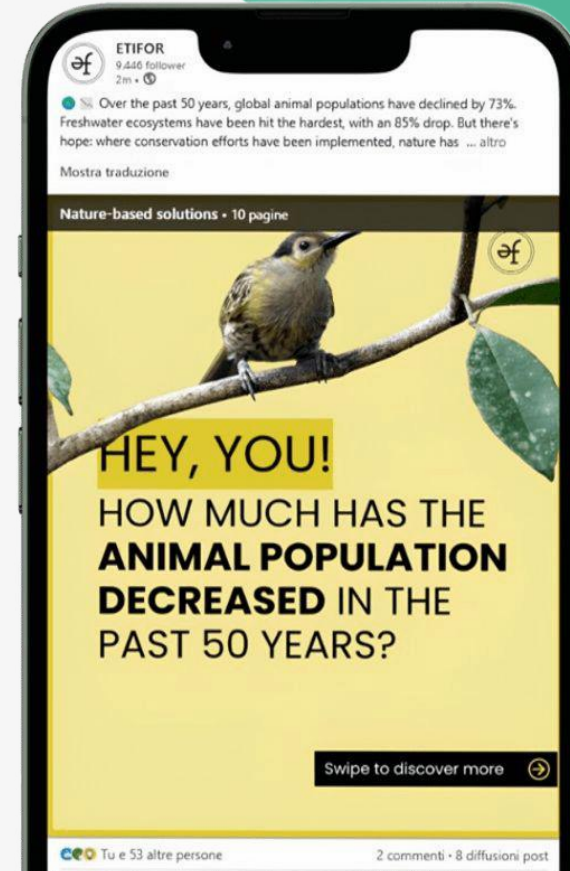
“...an approach to destination governance that seeks to balance the economic, environmental, and social/cultural needs of the destination; whilst **operating within a legitimate governance model with active participation from public and private sectors, as well as the local community**.” (WTTC)

DESTINATION STEWARDSHIP STARTER KIT



Thank you for your attention

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to put nature at the heart of decision-making



Speaker: Federica Bosco | Etifor
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