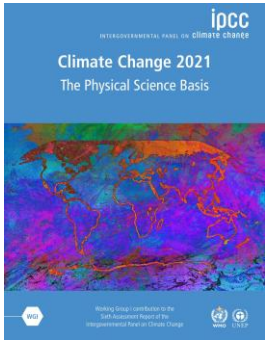
Naturpositiv havvind
- fra ambisjon til mening

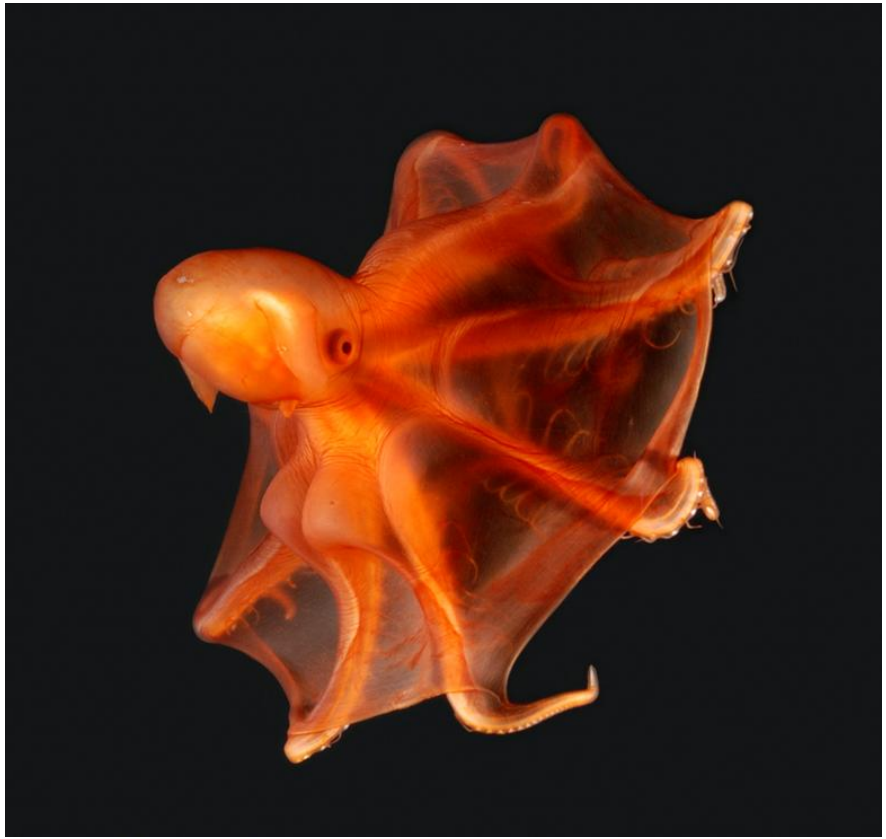
Fredrik Myhre & Kristina Fröberg







Den sjette masseutryddelsen av dyreliv i planetens historie



© naturepl.com / David Shale / WWF

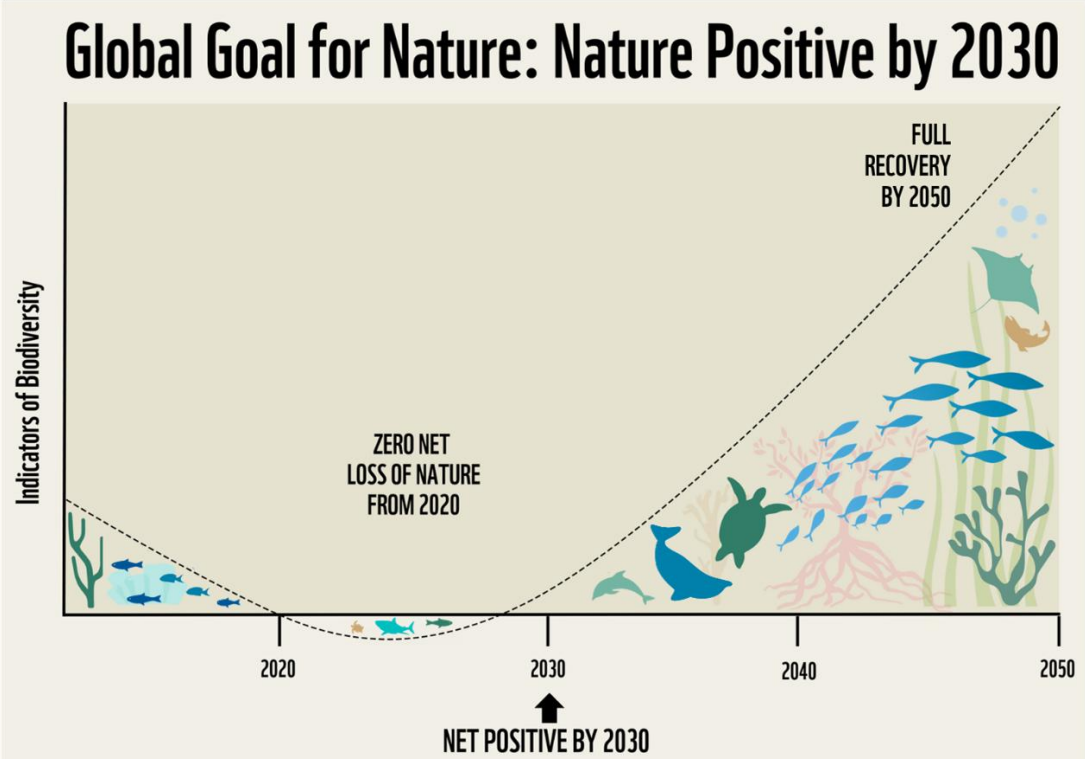


Living Planet Report 2026

- Verdens dyrebestandene har hatt en nedgang på hele 73 prosent i snitt siden 1970
- 35 803 bestander
- 5 790 arter

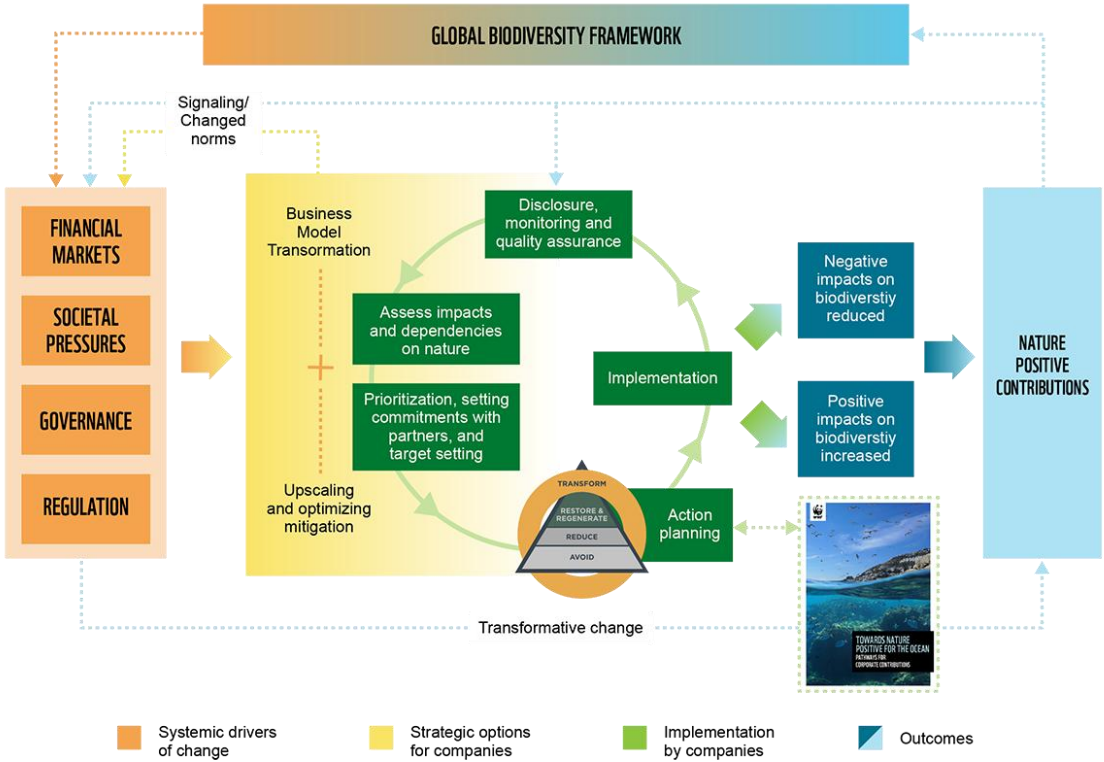
Naturpositiv: et globalt mål for naturen

Stanse og reversere tapet av natur innen 2030, med 2020 som en baseline, og å oppnå full gjenoppretting innen 2050.

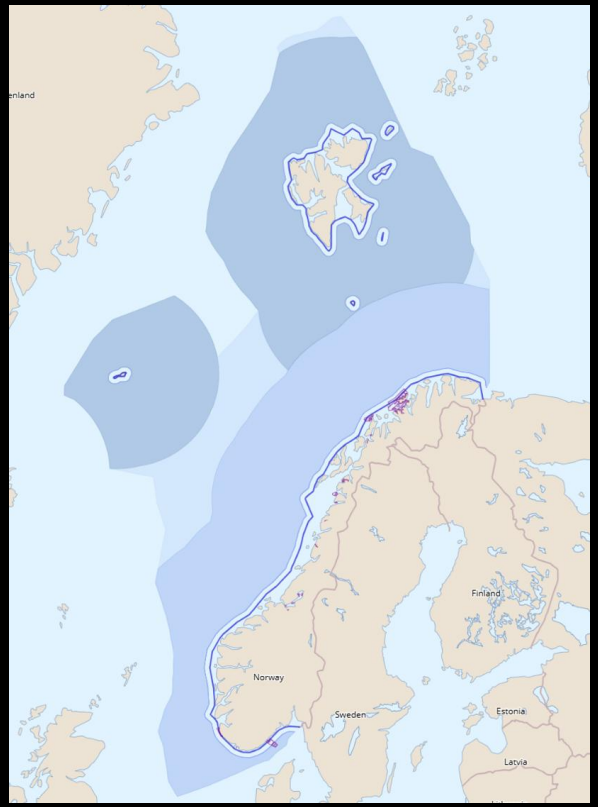


naturepositive.org

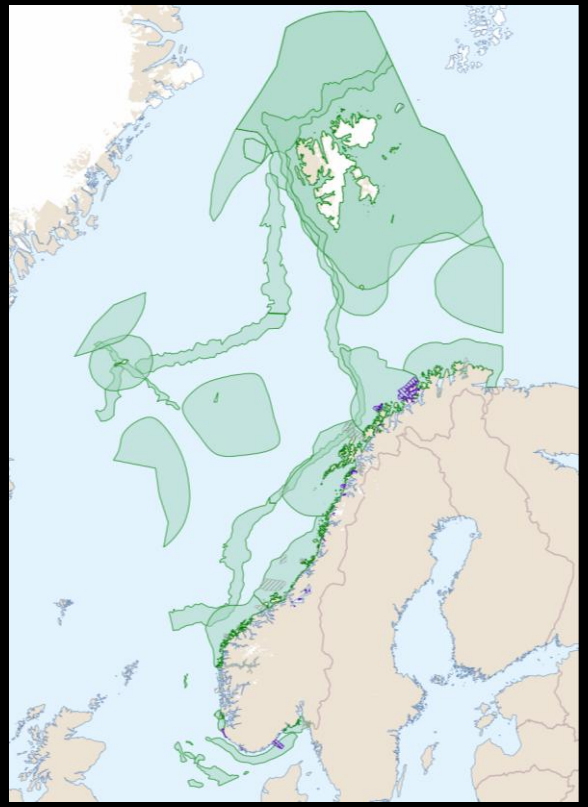
Alle har en rolle å spille: Selskaper, finanssektoren, myndigheter og sivilsamfunn



Marin arealplanlegging



En ny marin verneplan







Align with:

- TNFD
- SBTN
- UNEP FI
- ENCORE Typology

World Business Council for Sustainable Development

Climate Bonds Initiative

TNFD

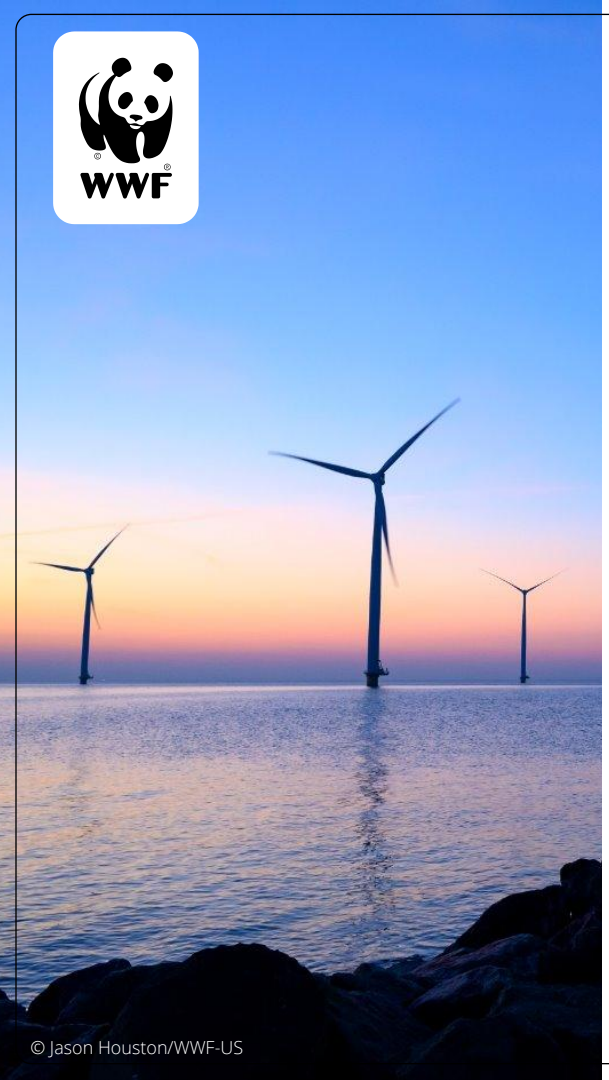
Additional sector guidance
Electric utilities and power generators

UNEP FINANCE INITIATIVE

Sustainable Blue Economy

Environmental impacts

- Loss or reduction in marine biodiversity, including loss of endangered, threatened and protected (ETP) species
- Loss of ecosystem resilience and provision of ecosystem services
- Loss or degradation of coastal and marine habitats
- Reduction in animal welfare
- Increased GHG concentrations
- Changes to marine biological, chemical and geological cycles



Steg på veien mot naturpositivitet

1. **Identifiser og prioriter påvirkning på, og avhengighet av, natur**

2. **Utvikle en handlingsplan:**

   - Samle inn data om utgangspunktet
   - Basert på påvirkningsfaktorer, mål for naturtilstand og friske referanseområder:
     definer ønsket naturtilstand ved hjelp av økologiske terskelverdier og mål

3. **Gjennomfør handlingsplanene, overvåk og mål effektene**

   - Gjennom uavhengig tredjepartsverifisering og kvalitetssikring av effektene

4. **Rapporter offentlig om framdrift**

5. **Tilpass handlingsplanene** løpende som respons på utfordringer, mangler og muligheter

OFFSHORE WIND ACTION PATHWAYS

Credible, science-based pathways and illustrative examples by OSW activity to contribute to nature positive. OSW activity types discussed in this chapter:

- **Micro-siting**
- **Design and manufacture**
- **Marine groundworks and installation**
- **Cable laying**
- **Operations and maintenance**
- **Decommissioning**




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MARINE GROUNDWORKS AND INSTALLATION

Industry classifications

ISIC 4312 and **ISIC 7112** (Groundworks)

ISIC 4220 (Installation)

NACE N71.12 Engineering activities and related technical consultancy

NACE F43.50 Specialized construction activities in civil engineering

NACE F42.22 Construction of utility projects for electricity and telecommunications (Installation)

Industry classifications (CONT.)

NAICS 541310 Architectural services

NAICS 541320 Landscape architectural services

NAICS 541330 Engineering services

Related impacts:

- Loss or degradation of coastal and marine habitats
- Loss or reduction in marine biodiversity, including loss of ETP species
- Reduction in animal welfare
- Loss of ecosystem resilience

RISK MANAGEMENT

Risk management Marine groundworks and installation present specific physical risks to nature, notably through habitat destruction, pollution, and wildlife disturbance during the construction phase. Companies should also be aware of potential transition risks, particularly regulatory and reputational risks, associated with the destruction or degradation of healthy and especially charismatic marine habitats.

Management of these risks includes avoiding impacts through timing of construction activities and through technological innovations that reduce pollution. Given that siting of specific works is a key tool in mitigating impact, risk management for groundworks and installation should be considered in tandem with risk management for micro-siting. (**Target** 15)

AVOID

- **Avoid coastal work at night** to prevent disruption to sensitive nocturnal species and coastal communities. (**Target** 4)
- **Avoid coastal and marine work during spawning, migratory, or breeding seasons for commercially important, vulnerable, and/or ETP species** (noting that migration routes and seasonality are shifting due to climate change, so companies will need to continuously monitor trends and support frequent monitoring). Consult predictive models, as well as recent and historical data to determine migratory activity and life stage behaviors for commercially important, sensitive, and ETP wildlife to avoid disruption. (**Target** 4)
  - ***For example:*** *In the northern Atlantic, Atlantic cod, an important commercial species listed as Vulnerable on the IUCN Red List, spawn between January and April. Therefore, if an OSW development is slated for an area where cod spawning is known to occur, avoiding construction during the spawning period would be advised, given that seafloor construction and water column disturbance and noise would disrupt the spawning activity.*[140]

  Similarly, the North Atlantic right whale is listed as Critically Endangered on the IUCN Red List. Its migration routes follow the Atlantic coast of the USA, through areas that may be selected for OSW development. For the majority of the year, these whales feed in the north, primarily in the Gulf of Maine, and migrate to the south, off the coast of Georgia and Florida, from December to March for calving. In this case, a project would consult the known migratory paths and their seasonality, and avoid development works when the North Atlantic right whales are in the area.[141]

REDUCE

- **Reduce light pollution** by restricting working hours and consecutive days of activity. (**Target** 7)
- **Reduce noise pollution** by establishing and monitoring noise threshold values to ensure emissions remain below acceptable levels. (**Target** 7)
- Restrict working hours and consecutive days of activity, as well as prioritizing **drilling which produces less noise** over hammering for pile installation where possible. (**Target** 7)
- If pile-driving, initiate works with a gradual increase in noise levels ("soft start") to encourage noise-sensitive species to leave the area safely.[142] This method is often preferable to deterrent devices, which can cause persistent disruption. Similarly, using bubble curtains or screens, or adjustable fluid cushions and hydro sound dampers for hammering components has been effective in reducing noise.[144] Consider vibro-piling or jetting, techniques that reduce sediment resistance and allow piles to sink into the seabed without impact hammers.[145]
- **Reduce seafloor sediment disruption** through low-impact construction techniques. (**Target** 1)
- **Reduce wildlife impacts** by conducting appropriate monitoring, such as marine mammal surveys before activities commence, and allowing for ad hoc shutdowns when marine mammals are observed in the area. Passive acoustic monitoring of marine mammals can be used during periods of low visibility.[146] (**Targets** 4 21)
- **Reduce entanglements of marine wildlife** (for example, sea turtles) in gear used during construction, like buoys and lines for floating OSW by securing and tightening lines, eliminating the use of rope where possible, and recovering lost gear/equipment/lines as quickly as possible.[147] (**Targets** 1 4)

OPPORTUNITIES

Opportunities Restoring degraded habitats, such as seagrass beds, can support coastal and climate resilience as well as biodiversity enhancement. When degraded seagrass beds are restored, data show that fish and invertebrate biomass, as well as carbon and nitrogen stocks, increase over time.[148] Restoration of carbon-capturing habitats such as seagrass meadows, when conducted well with meaningful outcomes[K] can lead to rapid recovery of coastal ecosystem services, but also present opportunities for generating carbon credits[L] for companies undertaking restoration efforts. Biodiversity credits may also present an opportunity for companies; however, they must represent a measured and evidence-based positive biodiversity outcome from nature restoration, conservation or stewardship activities that is not purchased for the purpose of offsetting residual negative impacts.[149]

There are also opportunities in the co-use of vessels and equipment that can be utilized for both the construction of the OSW infrastructure, and also for the deployment of restoration interventions and efforts. (**Target** 14)

RESTORE & REGENERATE

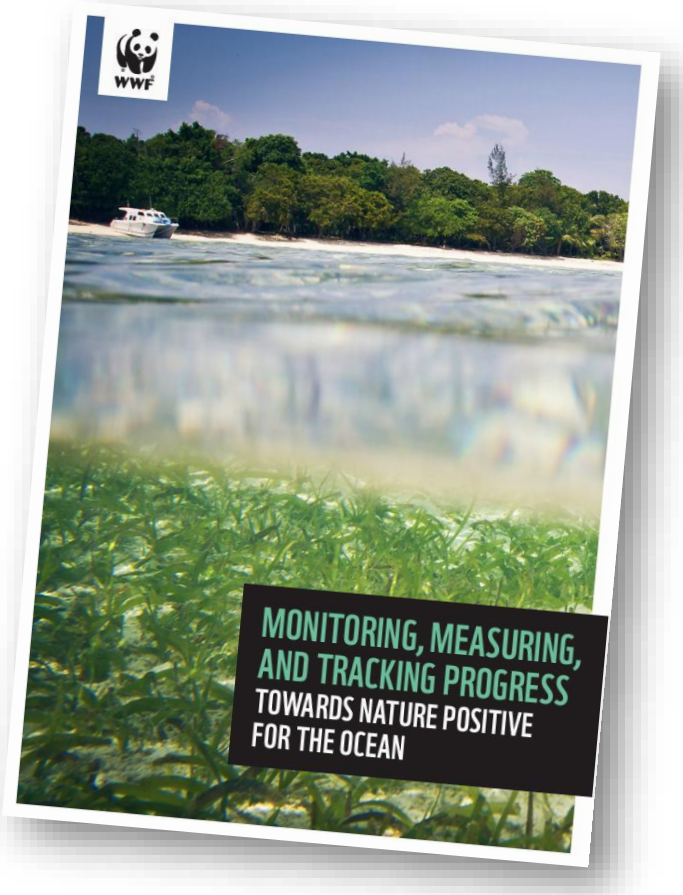
- **Prioritize the restoration and regeneration of especially biodiverse habitats** that could be impacted by groundworks and installation, or that existed in the area previously to restore it to a pre-degraded state (see also micro-siting and cable laying tables). Follow best management practices per ecosystem type. (**Targets** 2 11)
  - ***For example:*** *Key considerations for seagrass restoration include proximity to donor beds, water quality, planting techniques, scale, site selection, and planting materials.*[150] *A passive restoration tactic that has proven successful with eelgrass (Zostera marina) is implemented through the release of millions of seeds into degraded lagoonal areas. In Virginia, this has led to the recovery of over 3,600 ha of seagrass beds.*[150] *For kelp restoration, planting methods, hatchery needs, planting depths, and species interactions should be considered.*[151] *In Nova Scotia, a kelp restoration project introduced artificial reefs mimicking natural habitats in a degraded harbor to support kelp restoration. Kelp colonization, as well as use by sea stars, crabs, and fish was recorded, with the depth of the structures influencing success—shallower waters supported higher kelp coverage.*[152]

TRANSFORM

- **Advocate for a well-designed, inclusive, and ecosystem-based marine spatial planning process** that will mitigate impacts of work and installations in biologically and ecologically sensitive areas or habitats that host spawning, migration, and breeding of commercially important, vulnerable, and ETP species. (**Targets** 1 3)
- **Advocate for seascape-level groundworks and installation planning to avoid cumulative impacts** of construction noise and lighting from multiple different coastal projects. (**Target** 1 7)
- **Advocate for piling requirements for all marine construction that limit damage** to seabed habitat. (**Targets** 7 11)
- **Share knowledge** of the best available techniques across the sector for marine groundworks and installation, and continue supporting research and development of new and less impactful approaches and technologies. (**Target** 21)

K See for example the Global Mangrove Alliance Restoration Guidelines Joint landscape position papers and roadmap (2022-2024) | ISEAL Alliance and the SBTN Seascape Engagement Initiative Roadmap on p.118 Technical-Guidance-2025-Step3-Ocean-v1.pdf

L See 773q5lvbf0_WWF_position_and_guidance_on_corporate_use_of_voluntary_carbon_credits_EXTERNAL_VERSION_11_October_2019_v1.2.pdf for more details



Overvåking, måling og oppfølging

Avgjørende for å sikre troverdige bidrag til målet om naturpositivitet

- **Hovedrapporten:** hvor, hvordan, når og hvem som bør gjennomføre overvåking
- **Excel-tabeller:** Vitenskapsbaserte økologiske indikatorer

Indikatorene koblet til sentrale initiativer og rammeverk som SBTN, TNFD, ESRS og GRI.

Authors: Alanna Waldman Carrow, Mark Richardson, Alice Thomas-Smyth, and Rachel Golden Kroner, with contributions from 50+ authors and reviewers

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Hovedkonklusjoner

- Det kreves en bred samfunnstilnærming for å skape en naturpositiv utvikling
- Privat sektor har en sentral rolle å spille
- Behov for en helhetlig tilnærming – hvor hvert selskap har sitt eget utgangspunkt

Bruk av rapporten for selskaper:

- Navigerer i landskapet av rammeverk/veiledninger
- Gir grunnlag for naturstrategier og handlingsplaner
- Reduserer risiko, styrker motstandsdyktighet, og utløser muligheter – for naturen, næringslivet og investeringer

