



Voss 02.02.2022

Klima og naturmangfald – i verda og på Voss?

Klimakafe om klima og naturmangfald

Siri Vatsø Haugum
Forskar og fagansvarleg
Lyngheisenteret

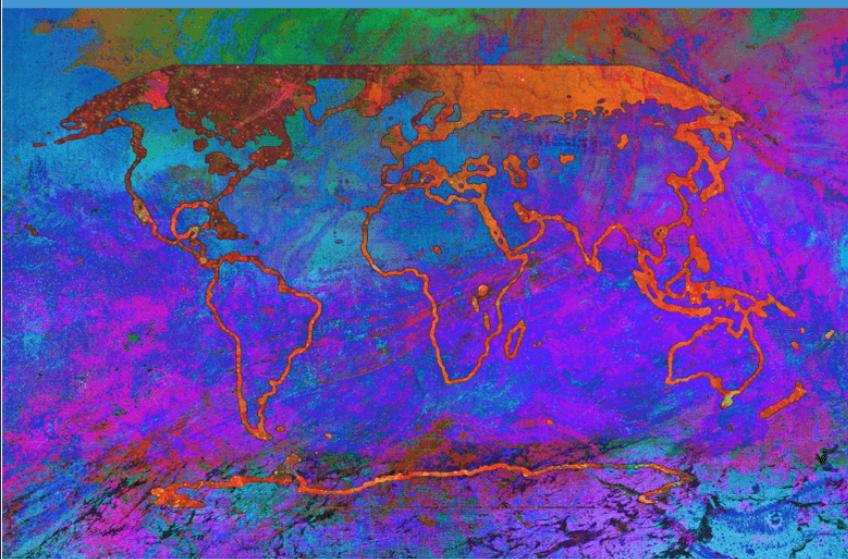


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Climate Change 2021

The Physical Science Basis



WGI

Working Group I contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change



FN sin sjette klimarapport (august 2021)

Global greenhouse gas emissions and warming scenarios

Our World in Data

- Each pathway comes with uncertainty, marked by the shading from low to high emissions under each scenario.
- Warming refers to the expected global temperature rise by 2100, relative to pre-industrial temperatures.

Annual global greenhouse gas emissions in gigatonnes of carbon dioxide-equivalents

150 Gt

100 Gt

50 Gt

Greenhouse gas emissions up to the present

0

1990 2000 2010 2020 2030 2040 2050 2060 2070 2080 2090 2100

No climate policies
4.1 - 4.8 °C

→ expected emissions in a baseline scenario if countries had not implemented climate reduction policies.

Current policies
2.7 - 3.1 °C

→ emissions with current climate policies in place result in warming of 2.7 to 3.1°C by 2100.

Pledges & targets (2.4 °C)

→ emissions if all countries delivered on reduction pledges result in warming of 2.4°C by 2100.

2°C pathways
1.5°C pathways

Data source: Climate Action Tracker (based on national policies and pledges as of May 2021).
OurWorldinData.org - Research and data to make progress against the world's largest problems.

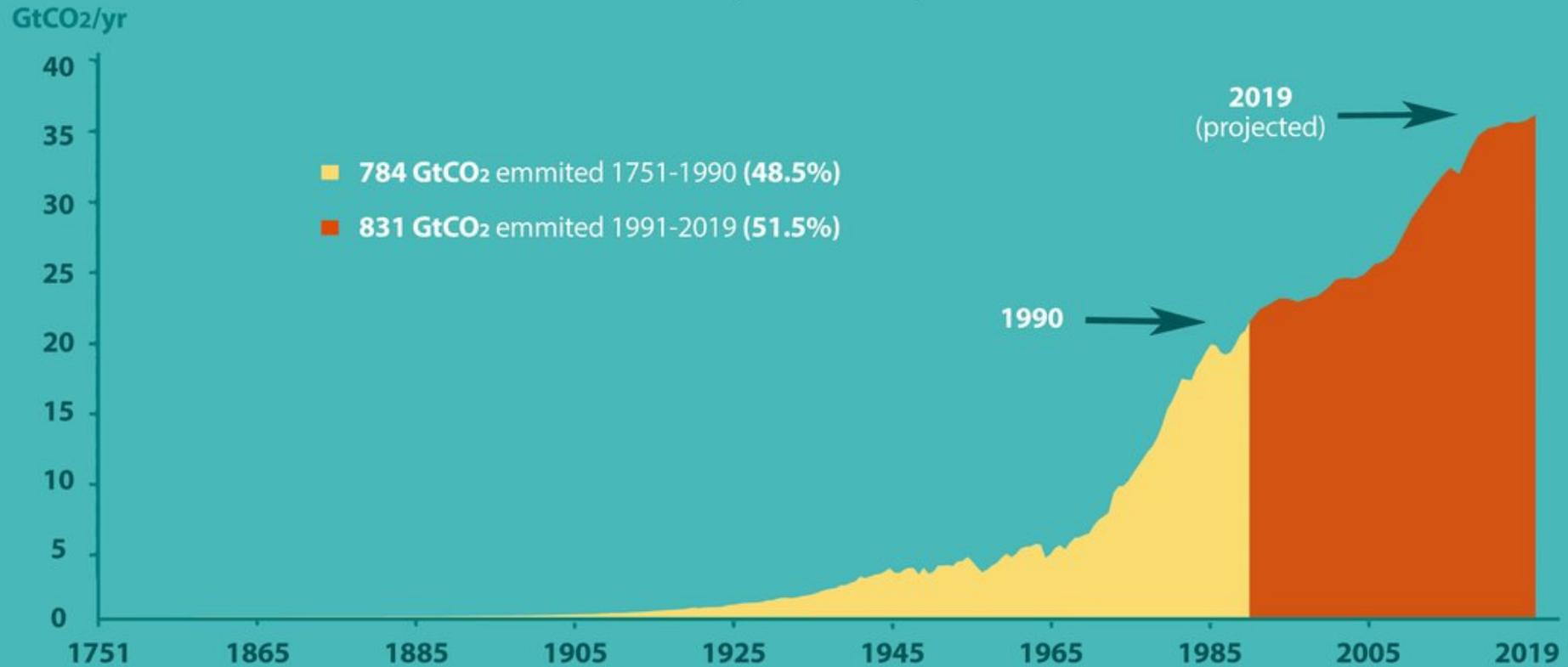
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Annual Global CO₂ Emissions (1751-2019)

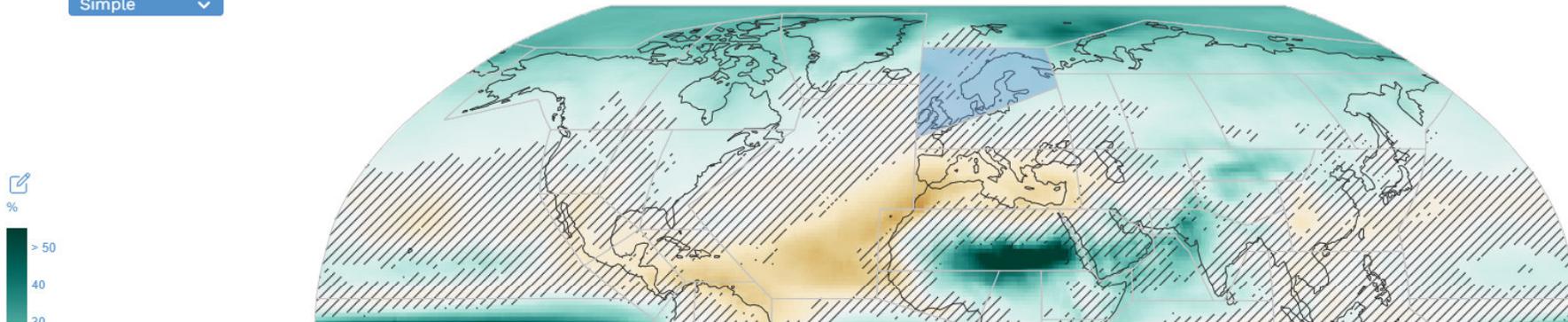


Sources: Carbon Budget Project (2017), Global Carbon Budget (2019), Peter Frumhoff (2014)



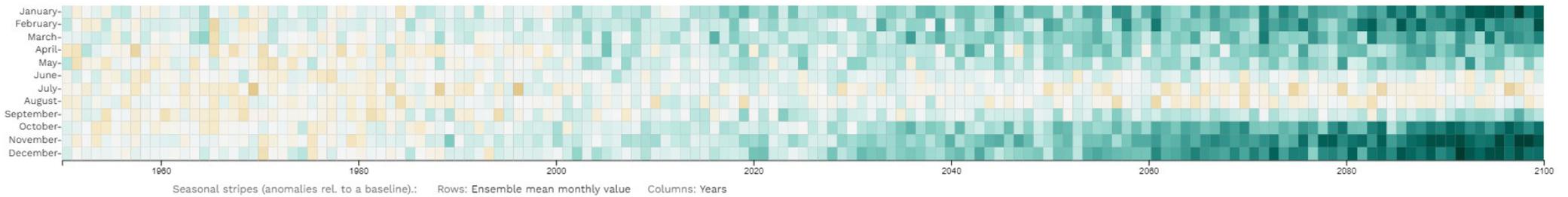
DATASET VARIABLE QUANTITY & SCENARIO SEASON

Region Set:
WGI reference-re...
Uncertainty:
Simple



CMIP6 - Total precipitation (PR) Change % - Warming 2°C SSP5-8.5 (rel. to 1850-1900) - Annual (33 models)
Regions: Northern Europe

Time Series GWL Plot Annual Cycle Scatter Plot Table Summary Stripes Seasonal Stripes



Export PDF



Export PNG



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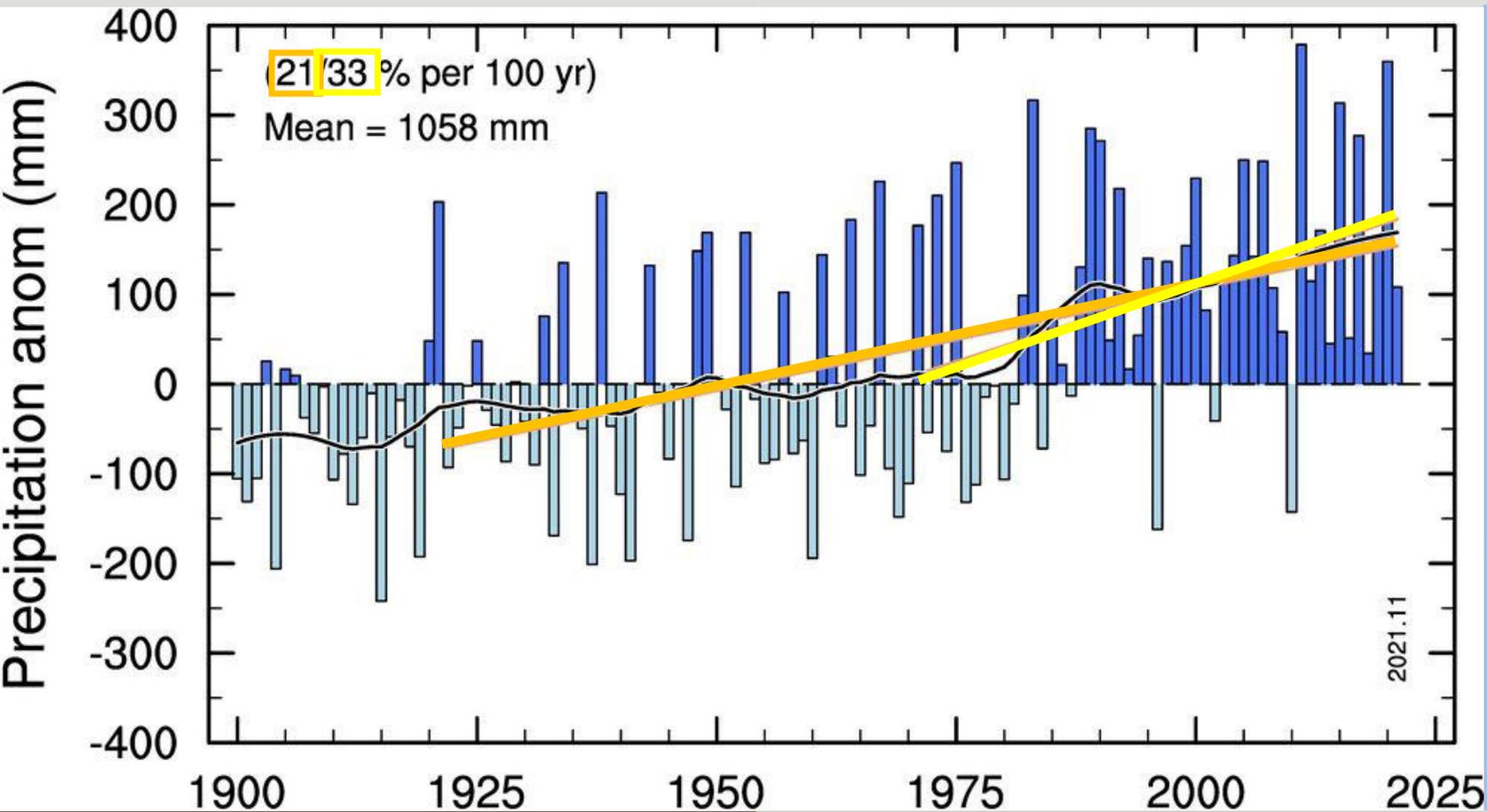


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IPCC Atlas 2021

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Gjennomsnittet er ikkje så farleg



Men ekstremar er farlege...

Januar

Februar

Mars

April

Mai

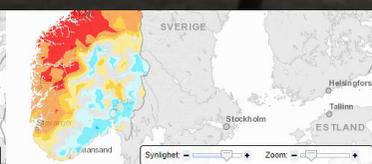
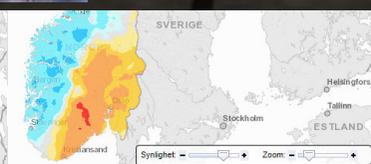
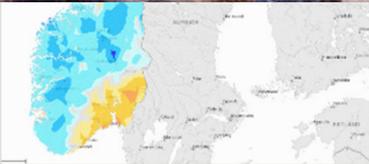
Juni



VG



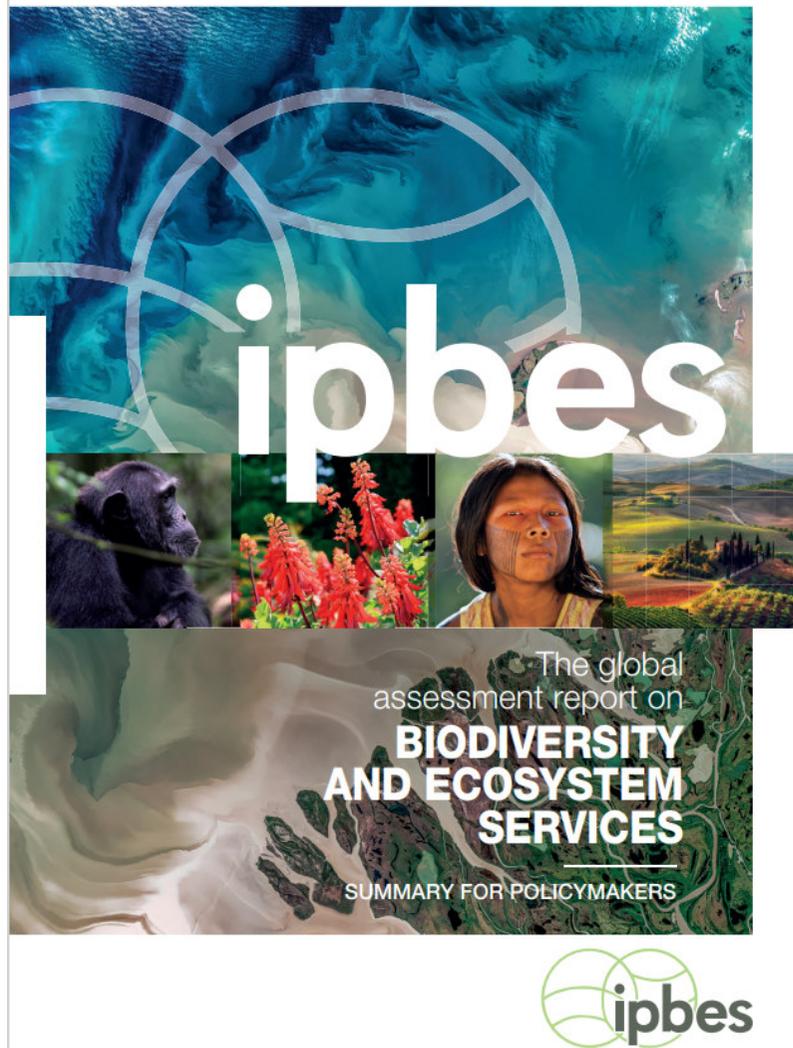
NRK



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2018

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FN sitt naturpanel



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DRIVERS

INDIRECT DRIVERS

Values and behaviors

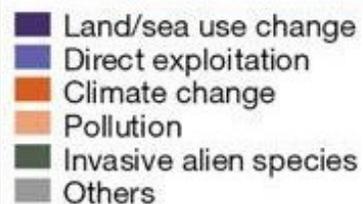
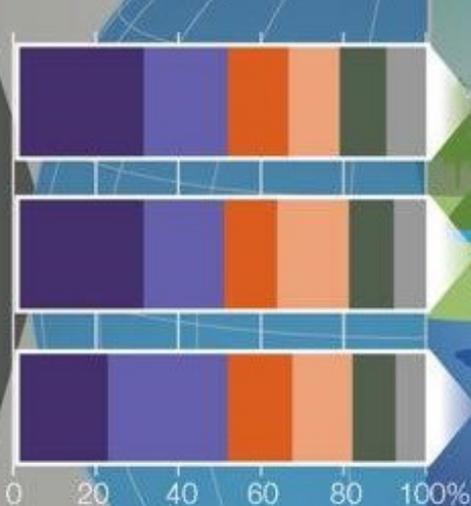
Demographic and sociocultural

Economic and technological

Institutions and governance

Conflicts and epidemics

DIRECT DRIVERS



EXAMPLES OF DECLINES IN NATURE



ECOSYSTEM EXTENT AND CONDITION

Natural ecosystems have **declined by 47 per cent** on average, relative to their earliest estimated states.



SPECIES EXTINCTION RISK

Approximately **25 per cent of species are already threatened with extinction** in most animal and plant groups studied.



ECOLOGICAL COMMUNITIES

Biotic integrity—the abundance of naturally-present species—has **declined by 23 per cent** on average in terrestrial communities.*



BIOMASS AND SPECIES ABUNDANCE

The global biomass of wild mammals has **fallen by 82 per cent**.* Indicators of vertebrate abundance have declined rapidly since 1970



NATURE FOR INDIGENOUS PEOPLES AND LOCAL COMMUNITIES

72 per cent of indicators developed by indigenous peoples and local communities show **ongoing deterioration** of elements of nature important to them

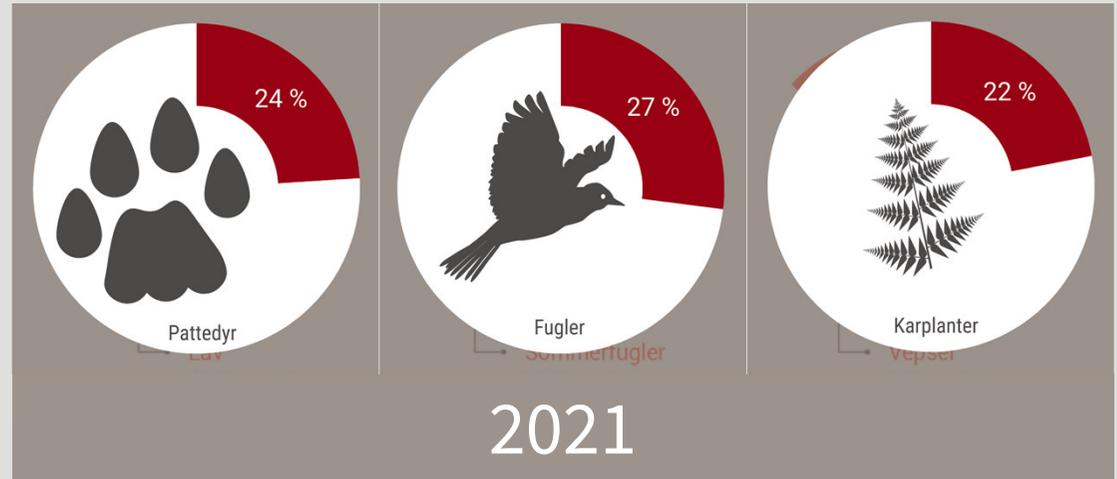
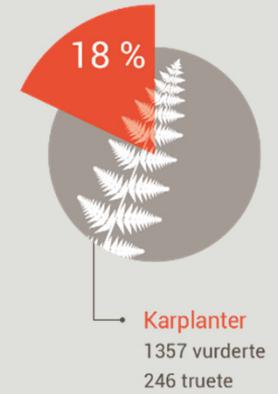
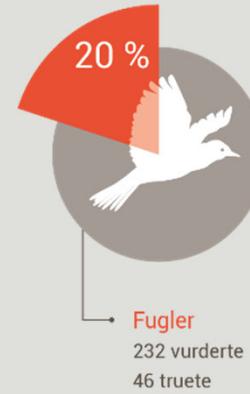
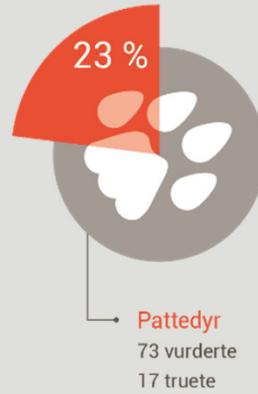




ARTSDATABANKEN

Norsk rødliste for arter 2015

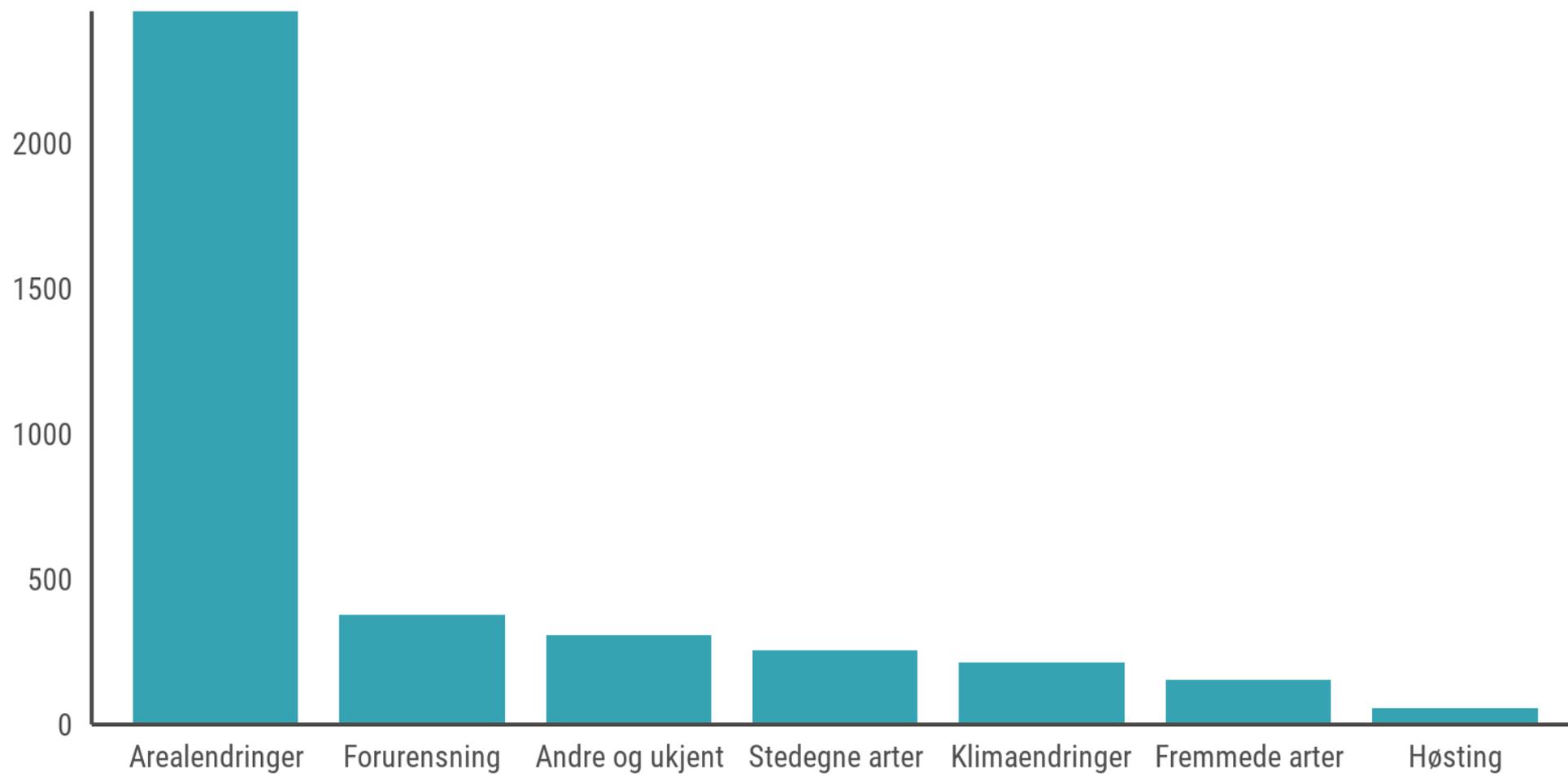
versjon 1.2

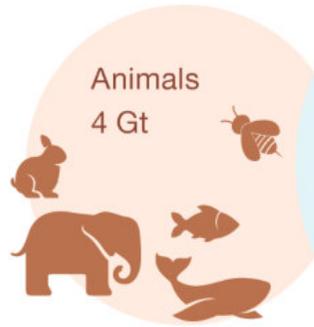


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Antall arter





Living biomass



Human-made mass



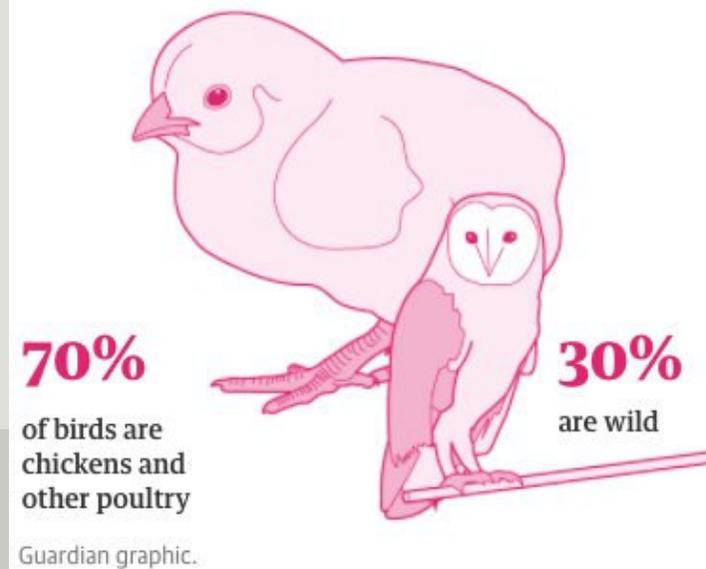
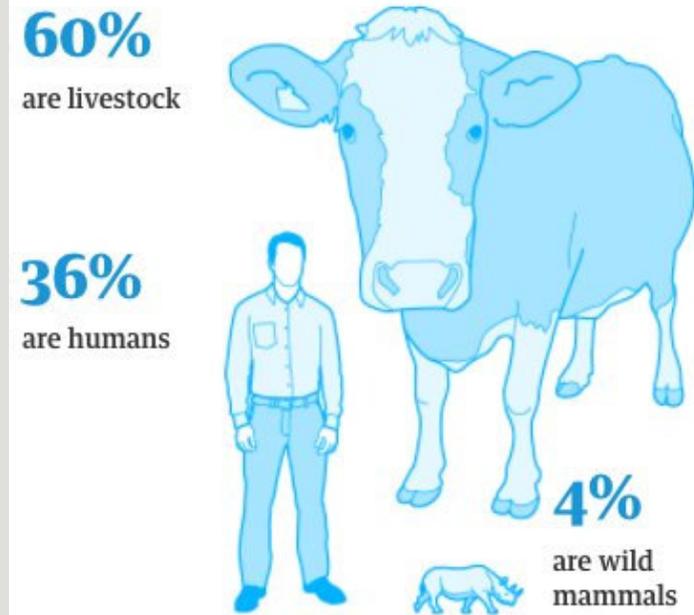
Buildings and infrastructure
1,100 Gt

Illustration of buildings and infrastructure including a road and a bridge.

Vi breiar oss.
Vi produserer materiale
som ikkje finnes i dei
naturlege kretsløpa.



Vi beslaglegg areal, vatn og fotosyntese på bekostning av andre artar.



Nature's contribution to people	50-year global trend	Directional trend across regions	Selected indicator
1 Habitat creation and maintenance	↓	○	• Extent of suitable habitat
2 Pollination and dispersal of seeds and other propagules	↓	○	• Biodiversity intactness
3 Regulation of air quality	↓	↕	• Pollinator diversity
4 Regulation of climate	↓	↕	• Extent of natural habitat in agricultural areas
5 Regulation of ocean acidification	→	↕	• Retention and prevented emissions of air pollutants by ecosystems
6 Regulation of freshwater quantity, location and timing	↓	↕	• Prevented emissions and uptake of greenhouse gases by ecosystems
7 Regulation of freshwater and coastal water quality	↘	○	• Capacity to sequester carbon by marine and terrestrial environments
8 Formation, protection and decontamination of soils and sediments	↓	↕	• Ecosystem impact on air-surface-ground water partitioning
9 Regulation of hazards and extreme events	↘	↕	• Extent of ecosystems that filter or add constituent components to water
10 Regulation of detrimental organisms and biological processes	↓	○	• Soil organic carbon
11 Energy	↓	↕	• Ability of ecosystems to absorb and buffer hazards
12 Food and feed	↓	↕	• Extent of natural habitat in agricultural areas
13 Materials and assistance	↓	↕	• Diversity of competent hosts of vector-borne diseases
14 Medicinal, biochemical and genetic resources	↓	↕	• Extent of agricultural land—potential land for bioenergy production
15 Learning and inspiration	↓	○	• Extent of forested land

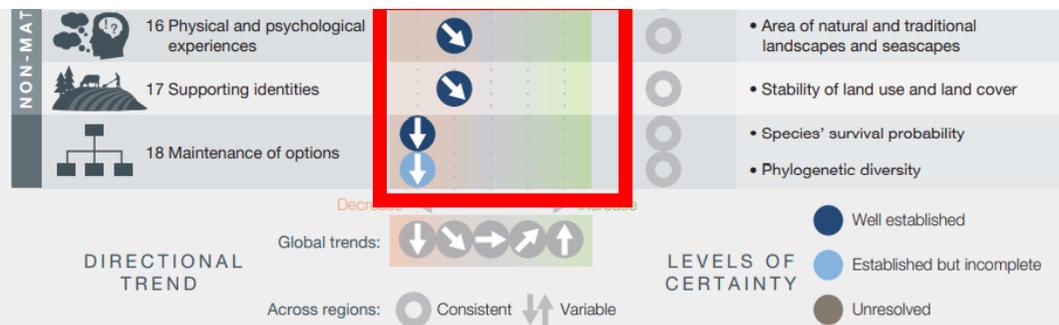


Figure SPM 1 Global trends in the capacity of nature to sustain contributions to good quality of life from 1970 to the present, which show a decline for 14 of the 18 categories of nature's contributions to people analysed.

Data supporting global trends and regional variations come from a systematic review of over 2,000 studies [2.3.5.1]. Indicators were selected on the basis of availability of global data, prior use in assessments and alignment with 18 categories. For many categories of nature's contributions, two indicators are included that show different aspects of nature's capacity to contribute to human well-being within that category. Indicators are defined so that an increase in the indicator is associated with an improvement in nature's contributions.

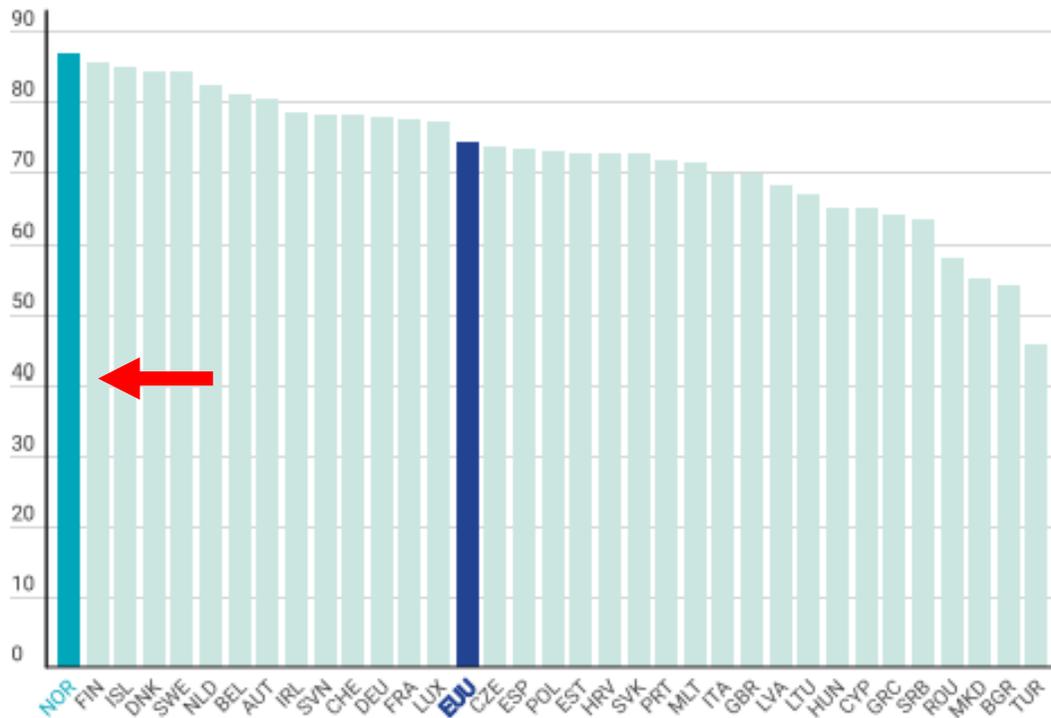
Livsgrunnlaget vårt blir svekka

Noreg si måloppnåing av FN sine berekraftsmål



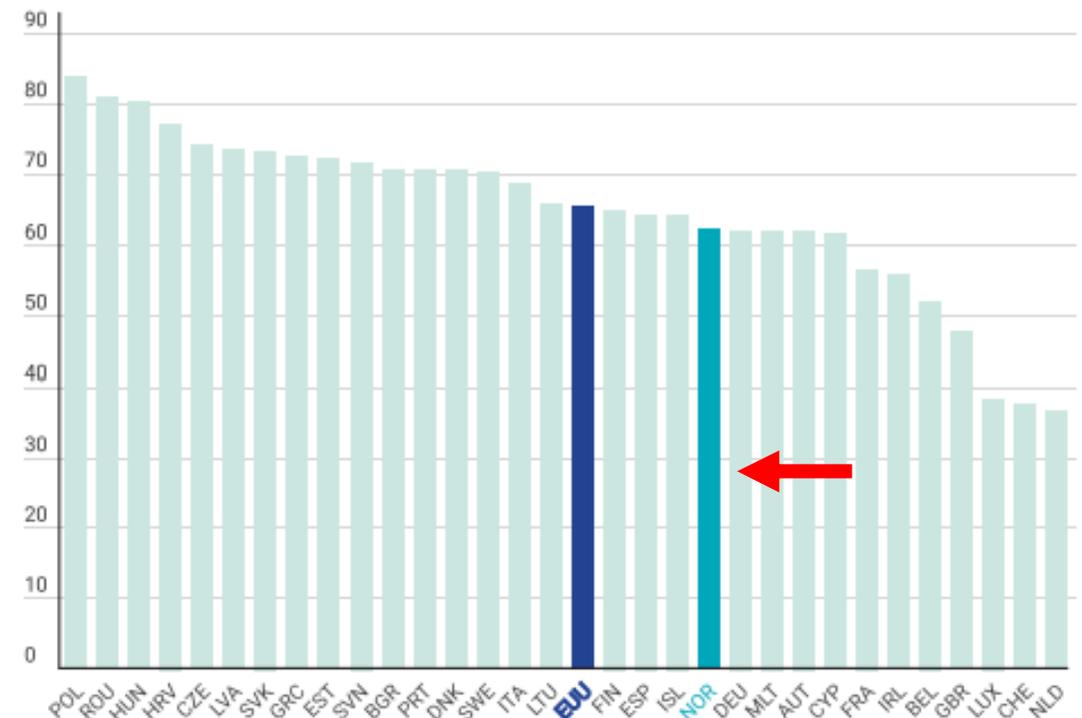
▼ Leave No One Behind Index

100 (best) to 0 (worst)



▼ Spillover Index

100 (best) to 0 (worst)



Notes: The full title of Goal 2 “Zero Hunger” is “End hunger, achieve food security and improved nutrition and promote sustainable agriculture”. The full title of each SDG is available at: <https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals>. Detailed results and methodology available online at <https://www.sdgindex.org/EU>





Voss

VOSS 39,56 prosent av maksimal totalsum



#165

/356 i [Norge](#)



#19

/43 i [Vestland](#)

Satser kommunen på natur



Beskytter kommunen naturen



Hva med alt vi ikke vet?



Kommunene sammenlignes på 13 utvalgte [vurderingskriterier](#) med data fra 2020 og 2021.

Sjekk gjerne ut [naturkampen 2020](#) for fjorårets rangering.

SAMMENLIGN KOMMUNER





Voss kommune fekk ny arealplan i 2020

Men...

... manglar kommunedelplan for naturmangfald

... manglar reguleringsplanar for naturområder

... har ikkje mål om arealnøytralitet





Voss kommune fekk ny arealplan i 2020

Dessutan...

... utbygging på jordbruksareal

... dispensasjon til nydyrking på myr og fastmark

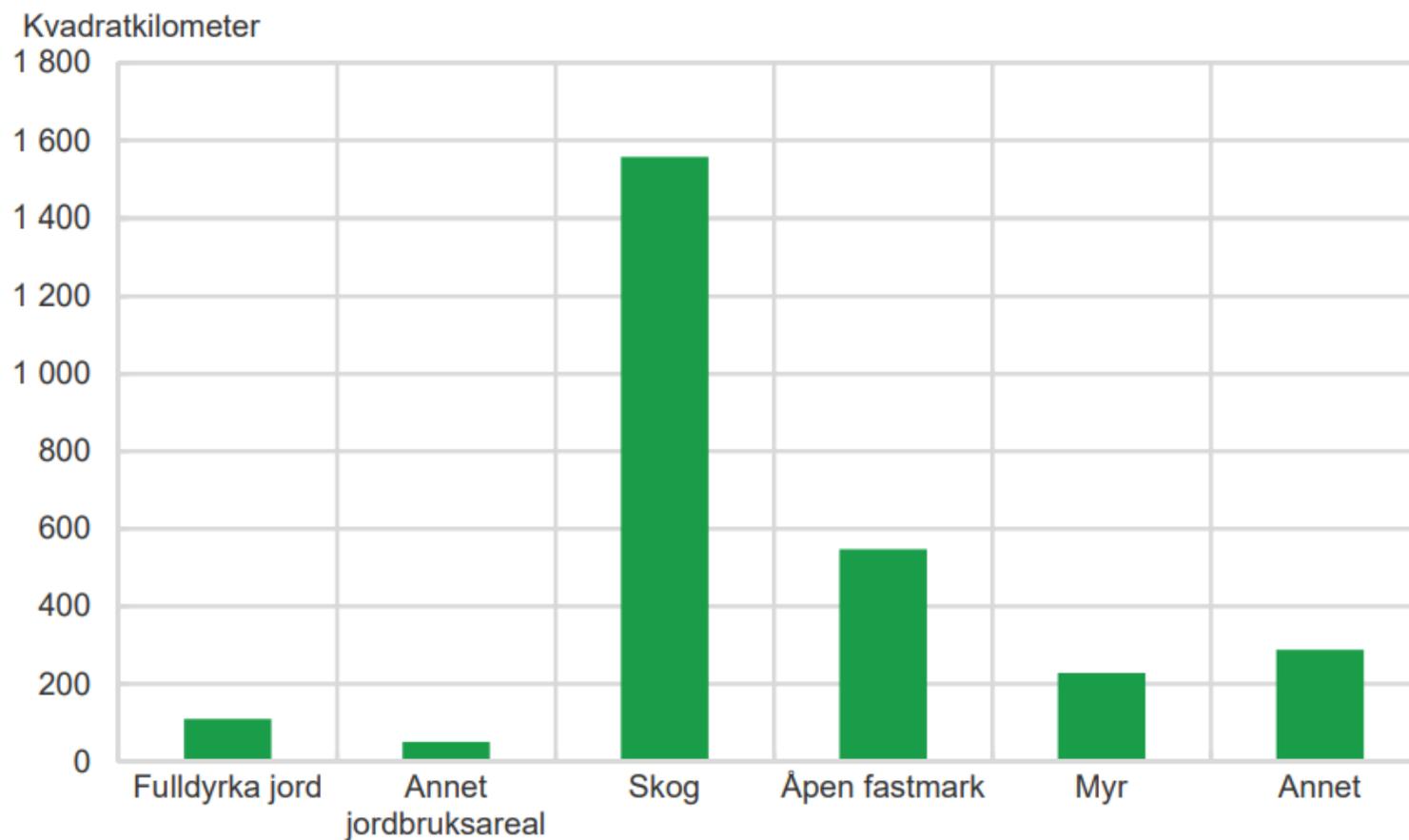
... ein del dispensasjonar frå planen



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Figur 6.1 Planlagt nedbygd areal, Norge digitalt arealplankartløsning 2019. 319 av 422 kommuner. Kvadratkilometer



Kilde: Statistisk sentralbyrå.



Og så då?



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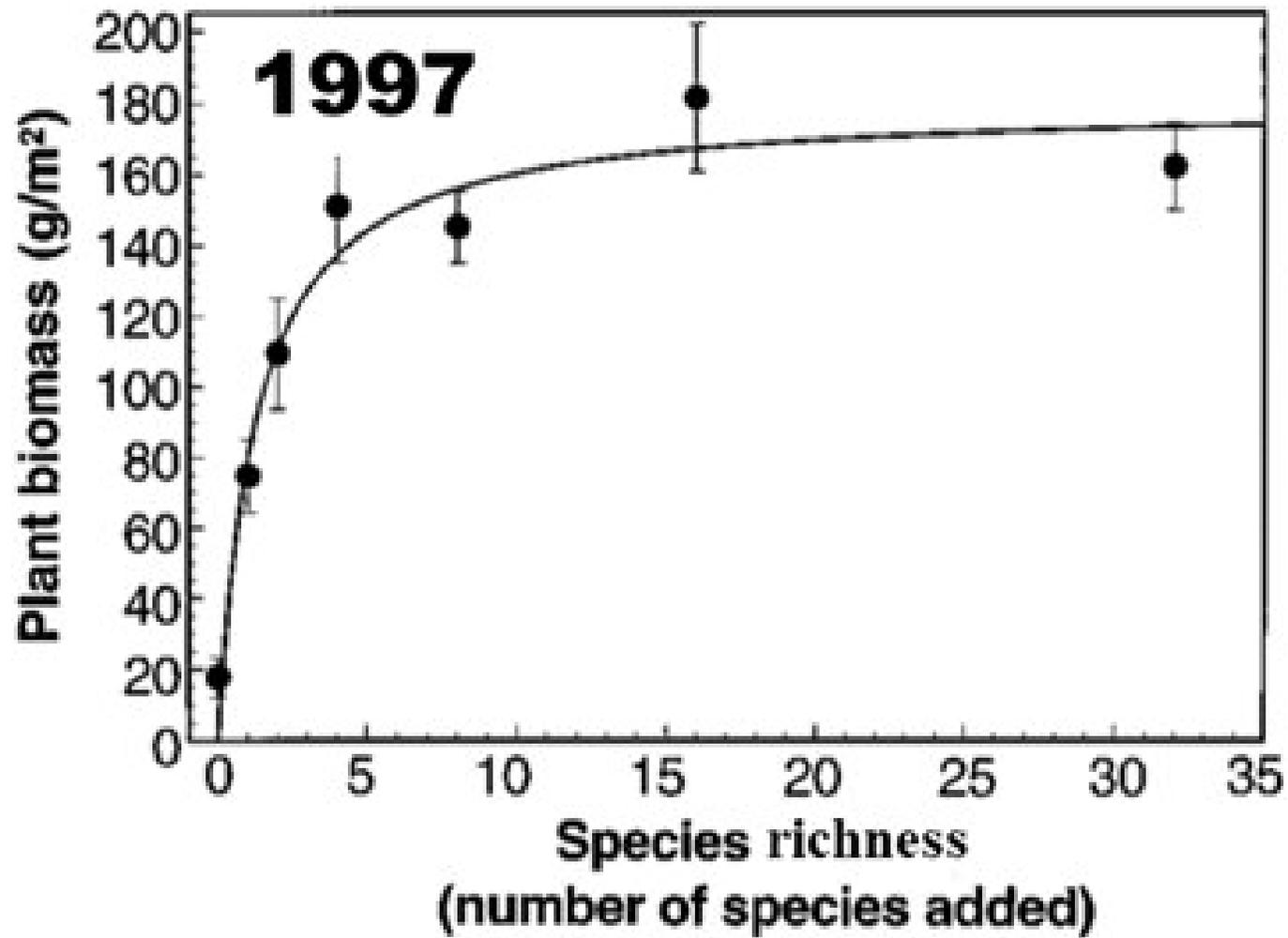
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«The Big Biodiversity Experiment», Cedar Creek, USA

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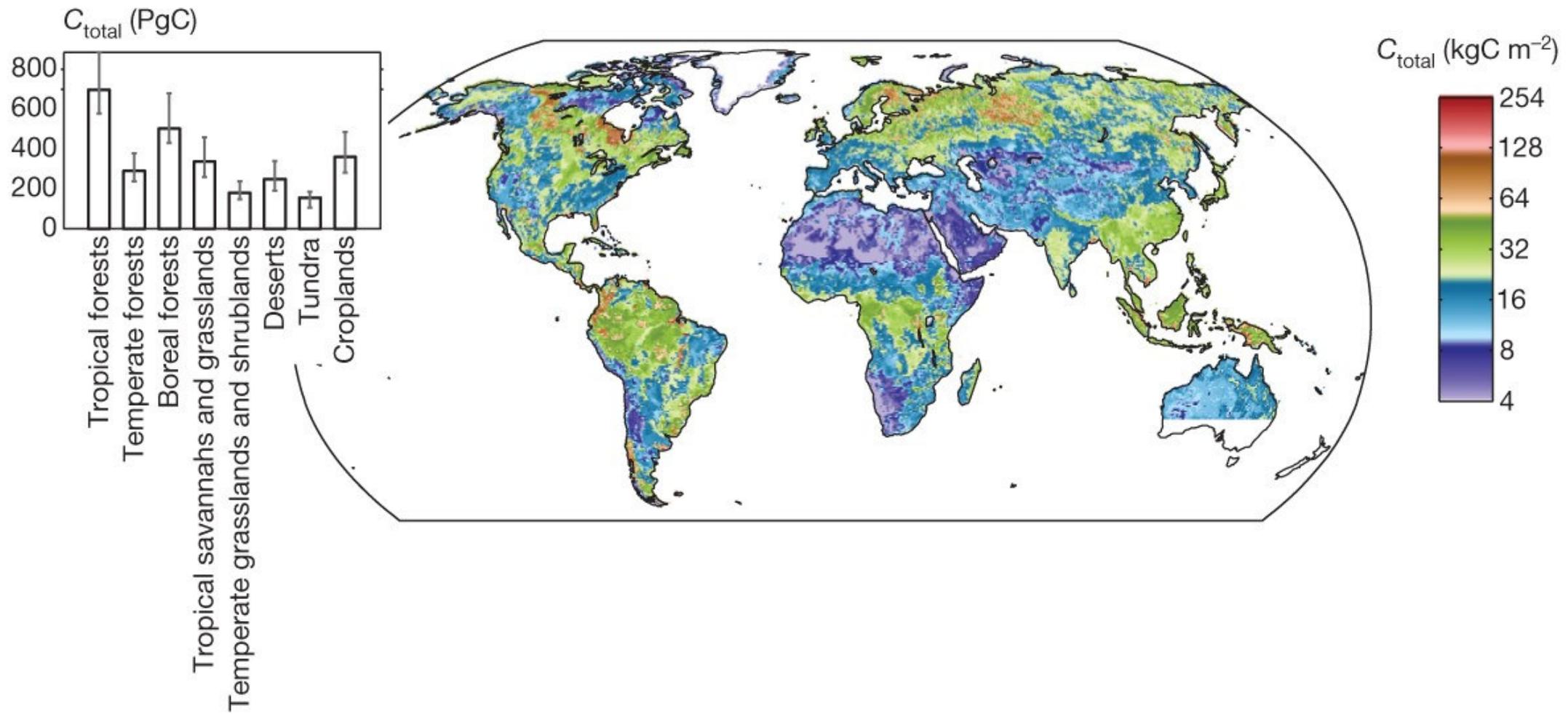
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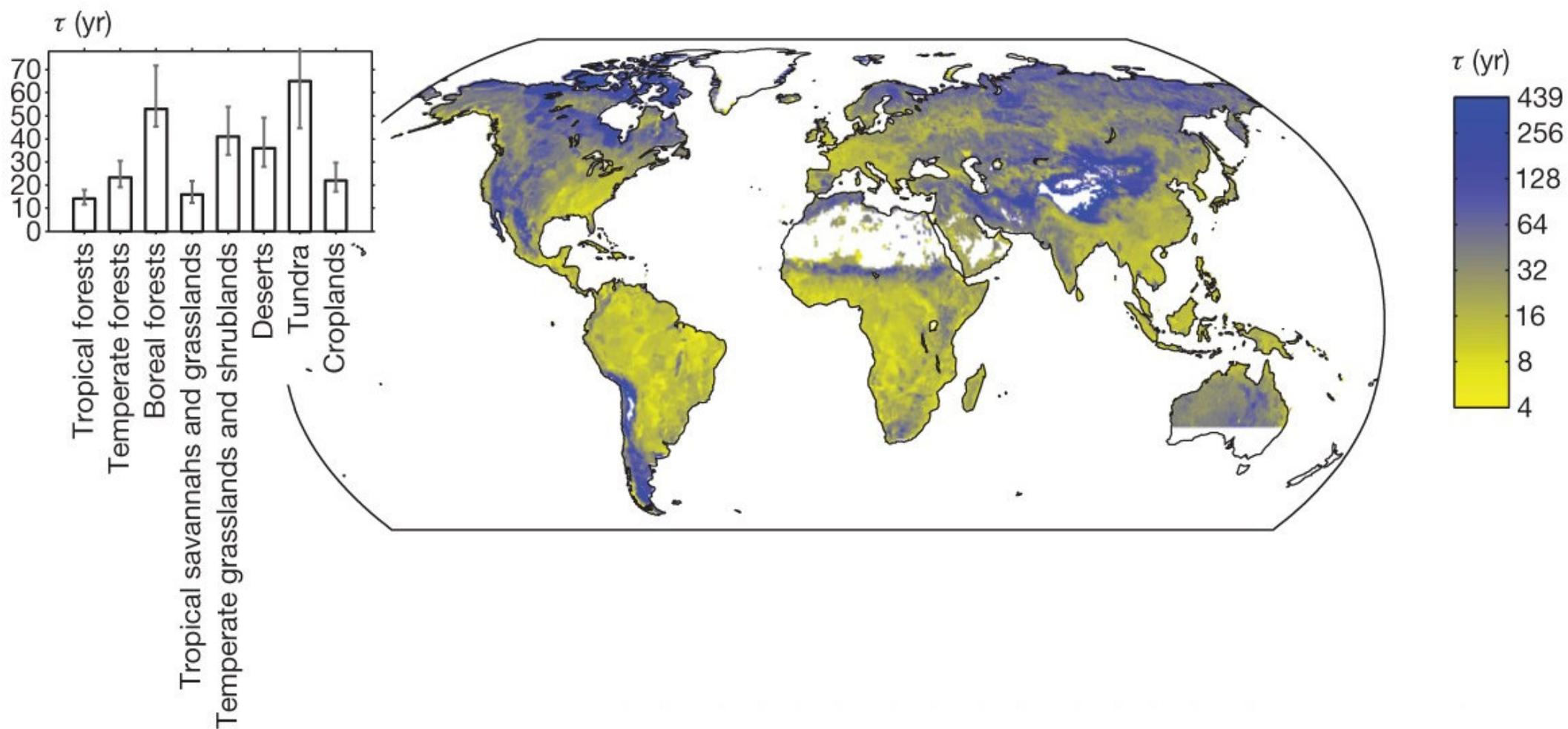


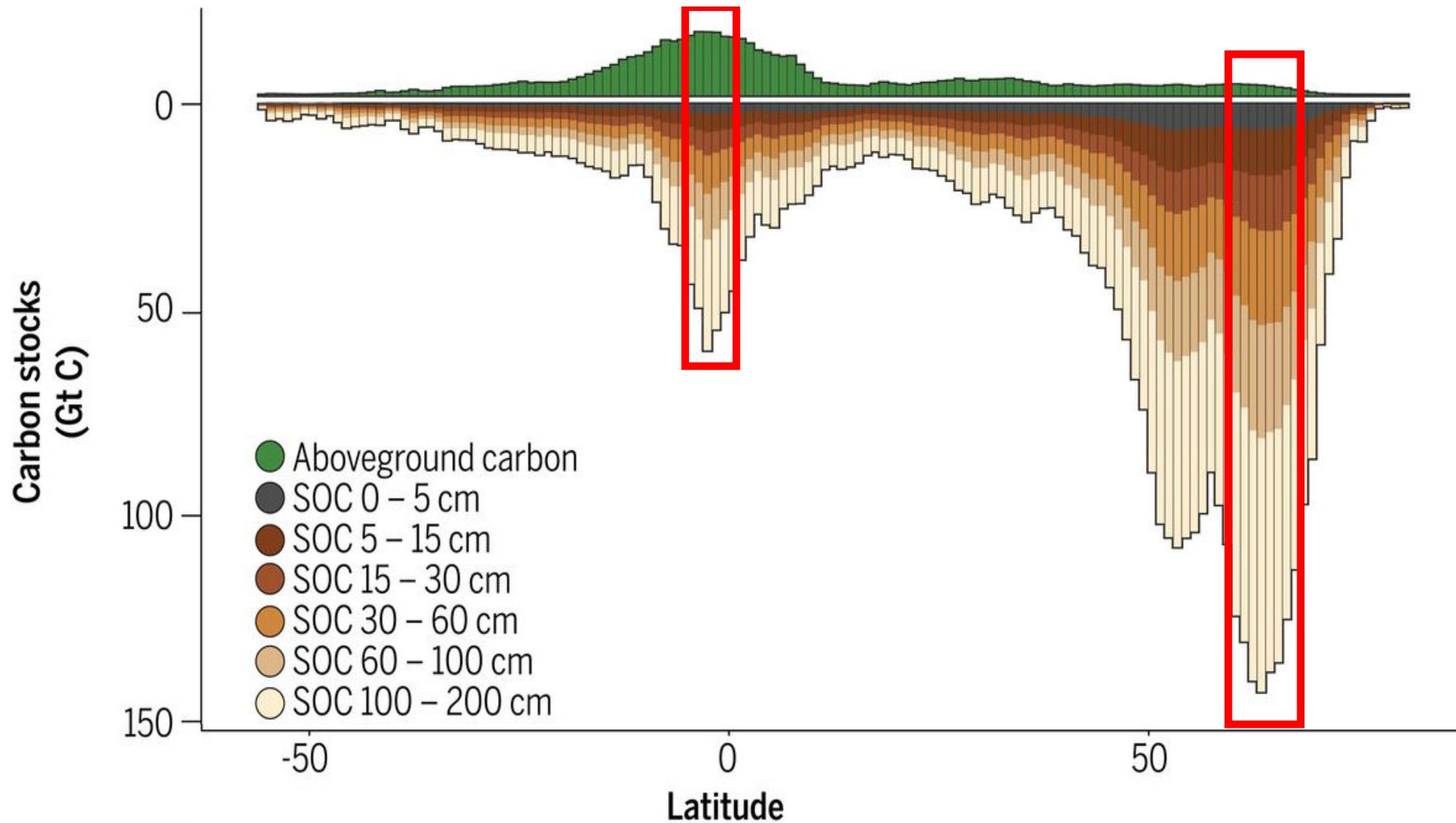
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Vigdis Vandvik - juni 2020

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Ta vare på det du er glad i!



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