

Nature-based tourism and recreation in Norway

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Agenda

Definitions and reporting

Recreation in Norway

EU Grants project

Recreation and tourism in Norway



- Tourism generated 148 billion NOK revenue in 2021, equivalent to 12 billion EUR, and represents **3% of GDP**.
- The economy of some regions, such as Northern Norway, relies heavily on nature-based tourism
- Outdoor recreation is very popular in Norway: **98%** of the population has taken part in **some outdoor activity** in the last 12 months.
- In 2021, the most popular outdoor activities were: walking, skiing, berry- and mushroom-picking, fishing, swimming, and boat trips

Source: Statistics Norway

Access to nature in Norway



“Allemannsretten”: right to access to nature areas for free

The right of public access gives people the right to travel and spend time in Norwegian nature. This right is a free public good that is part of the Norwegian cultural heritage.

Nature areas in Norway



- Settlements and other artificial areas only represent 1% of land
- Cropland represents 3.3%
- The remainder (95.7%) are natural and semi-natural areas

Recreation-related ecosystem services

“the ecosystem contribution, in particular through the biophysical characteristics and qualities of ecosystems, that enable people to use and enjoy the environment through direct, in-situ, physical and experiential interactions with the environment.” (Eurostat Guidance Note)

Mandatory reporting according to Eurostat Guidance Note:

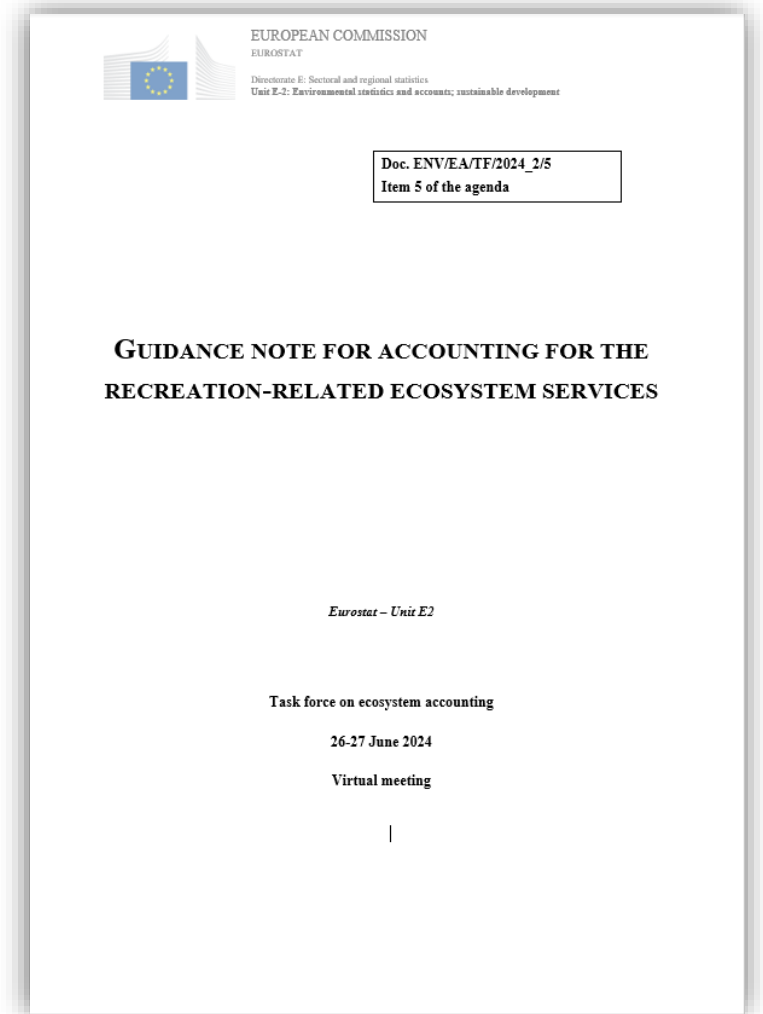
overnight stays in hotels, hostels, camping grounds, etc. that can be attributed to visits to ecosystems.



Overnight stays should be **attributed to ecosystem types at level 1 → 12 ecosystem types**



Voluntary reporting for same-day visits and local visitors.



Reporting tables

SUPPLY

Table 1. Reporting format for the supply of recreation-related ecosystem services

Reporting item	Ecosystem type level 1											
	1	2	3	4	5	6	7	8	9	10	11	12
	Settlements and other artificial areas	Cropland	Grassland	Forest and woodland	Heathland and shrub	Sparsely vegetated ecosystems	Inland wetlands	Rivers and canals	Lakes and reservoirs	Marine inlets and transitional waters	Coastal beaches, dunes and wetlands	Marine ecosystems
Number of overnight stays that can be attributed to visits to ecosystems (mandatory)												
Number of visits to ecosystems performed by locals and same-day visitors (voluntary)												

USE

Table 2. Reporting format for the use of recreation-related ecosystem services

Reporting item	Economic units				
	1	2	3	4	5
	Intermediate consumption by industries	Government final consumption	Households final consumption	Gross capital formation	Exports
Number of overnight stays that can be attributed to visits to ecosystems (mandatory)					
Number of visits to ecosystems performed by locals and same-day visitors (voluntary)					



EU Grant: Ecosystem accounting, ...,and Recreation services

- investigate the statistical foundation for nature-based tourism and recreation accounts
- explore possible methods to develop physical and monetary accounts for **nature-based tourism and recreation**, with a view to national policy relevance



Measuring recreation in Norway

1. Existing data sources and surveys

- Tourism survey and Living standards survey
- Not possible to connect tourism and recreation to ecosystem type

2. Use of mobility data

3. New national survey

Starting-point surveys from other countries and adjusted them to a Norwegian context.

4. Monetary valuation

T3.1	Existing statistical methods in Norway and some other countries.	Existing surveys in Statistics Norway will be examined and expansion/changes in these surveys will be discussed. New types of Statistics will also be examined based on experiences from other countries.
T3.2	General local and regional surveys about recreation and nature-based tourism	Types of surveys and discussion about how they might be expanded.
T3.3	New technologies for estimating recreation services and Nature based tourism	Investigate the possibility for new technologies and evaluate challenges and costs
T3.4	New national survey or mobile phone data used to give national accounts recreation and possibly nature-based tourism.	New survey or use of mobile phone data
T3.5	Evaluation of recreation and possibly nature-based tourism services in monetary terms	Examples from Norwegian projects and promising methods for scaling up results



2. Use of mobility data

Source: Mobility data from Telia, a main mobile data provider in Norway with an online ArcGIS-tool (**Geodata**) with three modules:



Activity data - telling you how many people have spent more than 20 minutes in a location, down to cells of 500x500 metres - every hour, every day, all year round and the number of individuals per day.

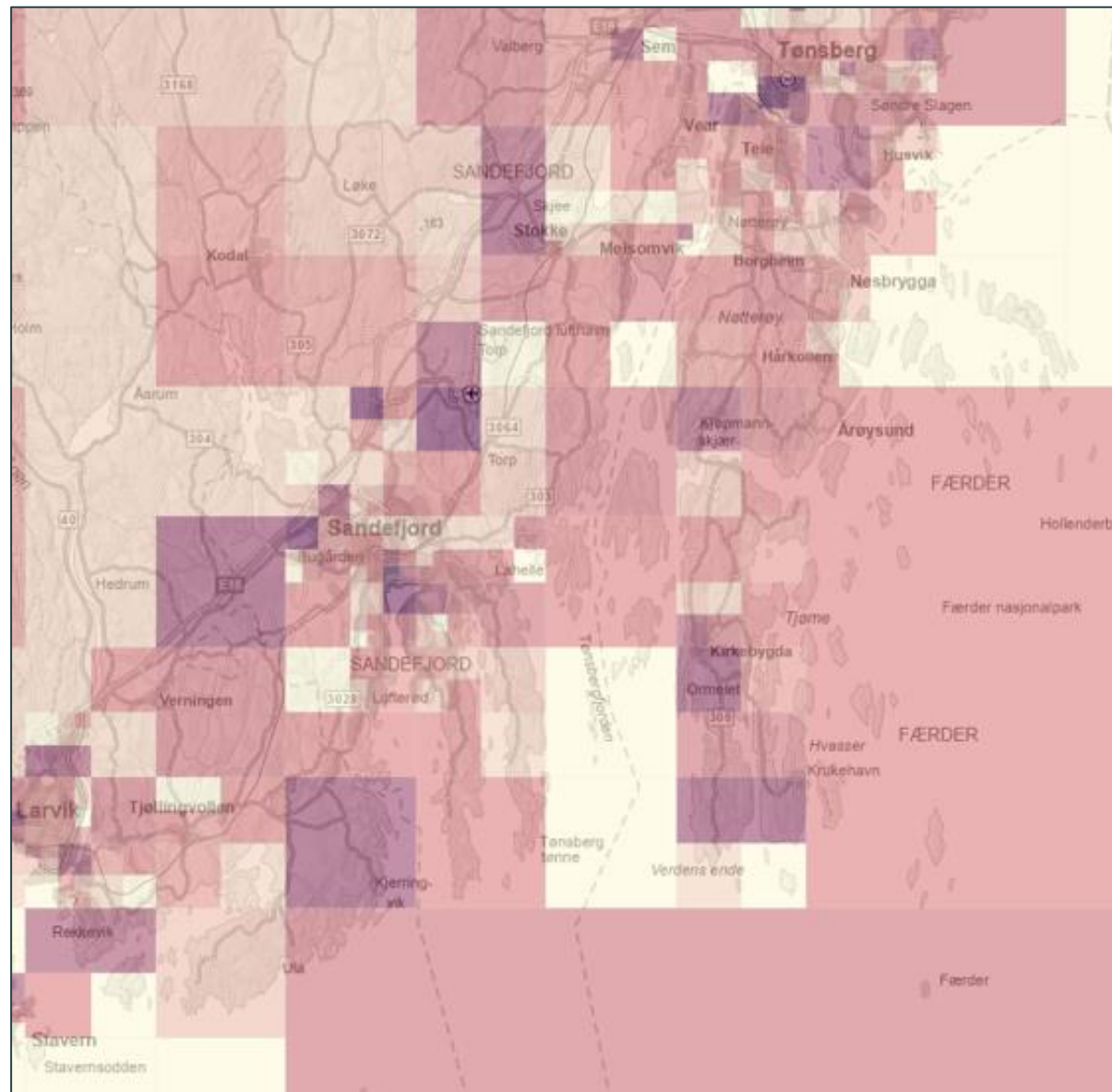
Visitors - the number of people from different municipalities have visited a cell in a day.

Journeys - a daily overview of which municipalities residents are travelling to.

- Own map layers could be added in the tool
- Limitations when extracting the detailed figures - visual graphics
- GDPR compliant – if less than 5 people in a cell will automatically be aggregated to a larger area



Example of different cell sizes in the area of the municipality of Sandefjord. The smallest cell is 500x500m



Geodata/mobility data – issues

- The number of visitors for naturebased recreation cannot be distinguished from other activities
- Indirect calculations based on the difference in visitors in different seasons/weekdays or similar indirect approaches to control for commuters would be possible
- Travel time of visitors in the **Visitors module** is also of concern due to different sizes of municipalities.
 - **Did not proceed with Mobility data from the Geodata application**
- Although mobility data was difficult to use for naturebased recreation and tourism it may be useful other purposes or statistics





New national survey

- Based on similar surveys from England, Ireland, Canada, and Denmark
- Adjusted to the Norwegian context, “Allemannsretten”, general high consumption of naturebased recreation, wide use of vacation homes for nature-based tourism

National kortlægning af danskernes naturbesøg – Geografiske analyser af friluftslivet i Danmark i forhold til arealanvendelse, beskyttelsesudpegninger og ejerforhold

Gernow, Lene; Leqarth, Jonas Vester; Jensen, Frank Søndergaard; Olafsson, Anton Stahl

The People and Nature Survey For England



S. & Olafsson, A. S. (2024). National kortlægning af danskernes friluftslivet i Danmark i forhold til arealanvendelse.



Canadian Nature Survey:

awareness, participation, and expenditures in nature-based recreation, conservation, and subsistence activities

Federal, Provincial, and Territorial Governments of Canada
www.biodivcanada.ca



Structure of survey

Recreation

Introductory question

Activities done in the last 12 & last 3 months

Mapping of 3 activities on Google Maps

Barriers preventing from engaging in recreation

NB Tourism

overnight stays in different types of accommodation

overnight stays in different **ecosystem types**

overnight stays for NB tourism abroad

Last trip & 2nd to last trip

Last trip to nature area (Map)

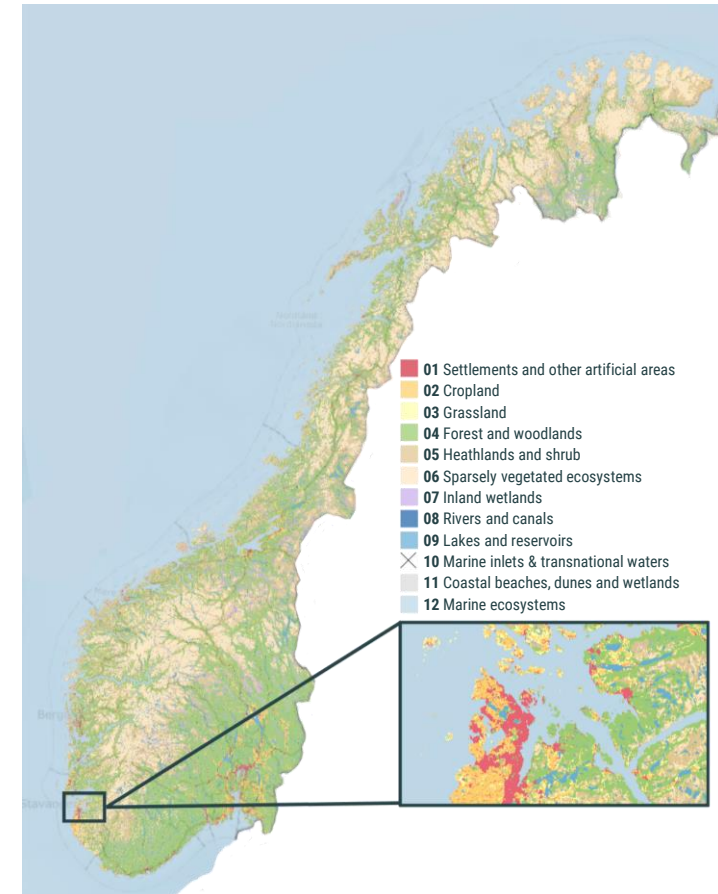
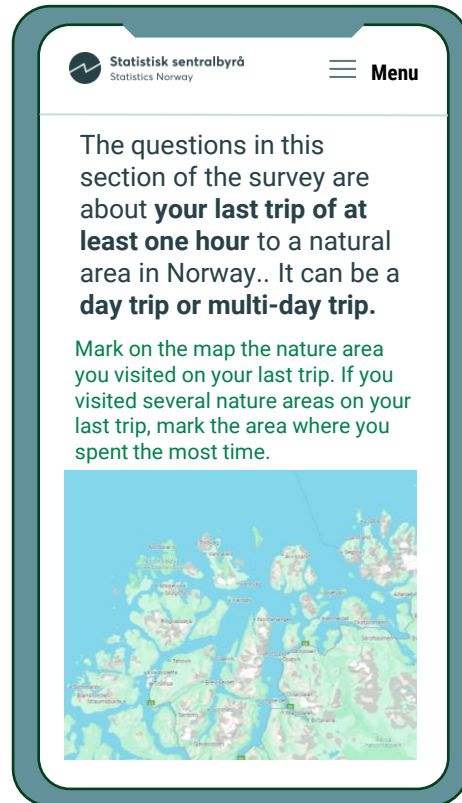
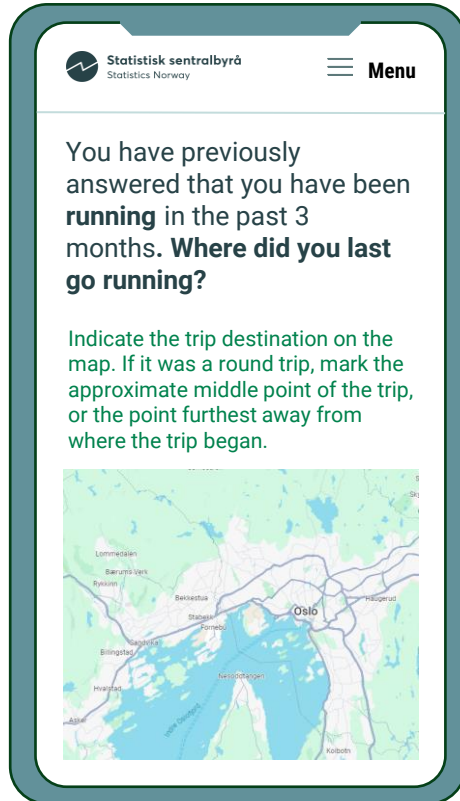
Expenses associated with last trip & other details

Ecosystem type visited during last trip

Second to last trip (Map)



Connecting visits to ecosystem types



Last/2nd last trip: monetary valuation

- Uses the **travel cost method** to estimate the value of recreation and nature-based tourism in monetary terms.
- Questions focus on:
 - The last trip taken to a nature area in Norway, last 6 months, duration of at least 1 hour, with main purpose of visiting a nature area (not job-related).
 - pinpoint on a map the destination, follow up questions on starting-point and transportation.
 - Duration of the trip, purpose, overnight stay, activities, expenses



Challenges



- How to define the «**last trip**» to a nature area where one potentially incurred in some expenses?
 - At least 10 km from home? One hour from home? What if the trip didn't start from home?
 - Is the distance calculated from the point where you for instance started walking, or from the place you last slept?
 - Multidestination trips



- Asking to report on expenses is quite demanding, but becomes very demanding when respondents have been on **multi-day/destination trips** → very difficult to aggregate expenses



- Making the definitions of **ecosystem types** understandable to the general public
 - Easier once we ask to pinpoint a location on map, from which we will deduce the ecosystem type
 - At the same time, we will need to decide what **radius** we should consider as the likely distance one covers on a trip.

- Activities over **several ecosystem types**, such as running and biking, how to distribute?

- Biking on the road--ecosystem class 1 «Urban areas and other artificial settlements», but trips may cross many ecosystems.

- Always ask about the same activities? Some very **seasonal- aktivites but depends (North south)**



Framework and timeline

Use **register data** to connect the answers of respondents to background info about their level of education, income, place of residence, and other relevant variables.



- Cross-sectional data
- Frequency: every 6 months
- Sample size: 5000 people (1st round)

Spring 2024

Summer 2024

Autumn 2024

Spring 2025

Development of pilot survey

Testing and development
Cognitive interviews, feedback from interviewers

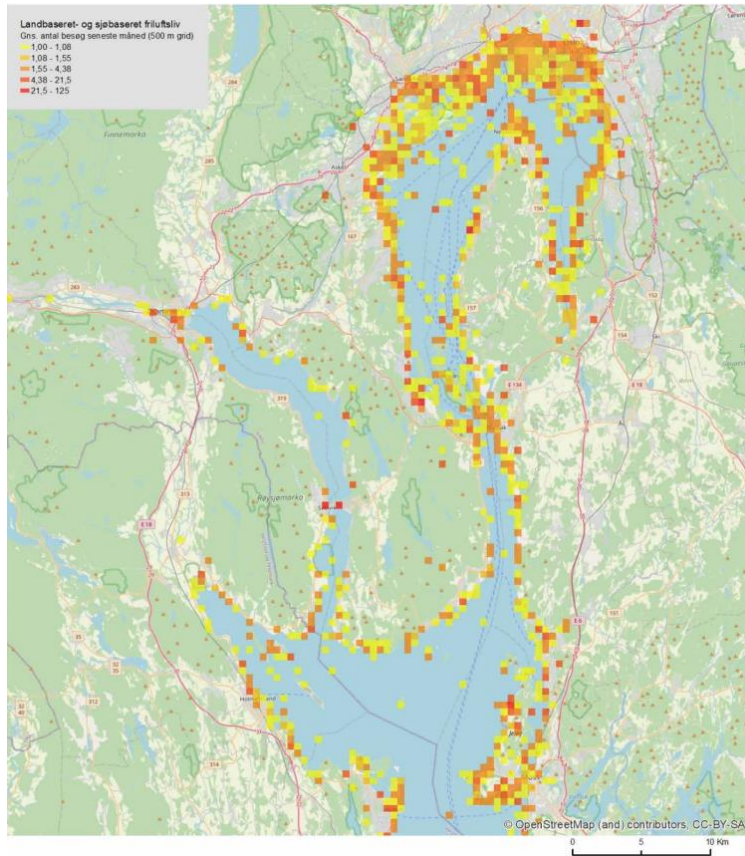
Data collection
1st round

Data collection
2nd round

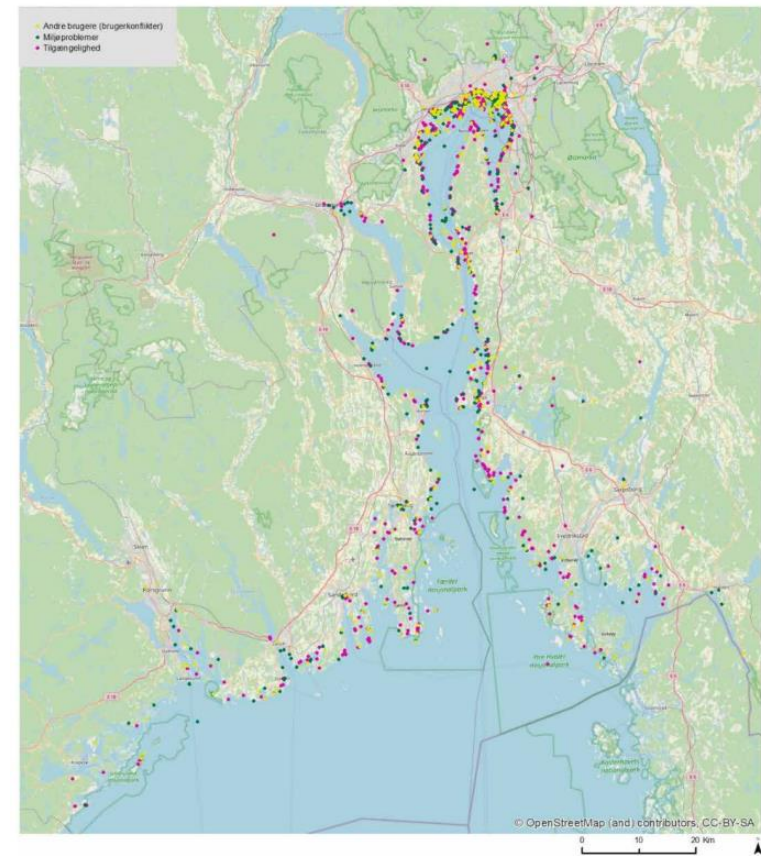


Statistisk sentralbyrå
Statistics Norway

PPGIS Case study on the Oslo fjord



Land-based and water-based outdoor activities
Frequency of visits in the last month (scale 1-125)



Areas with problems associated with use-conflict, accessibility, or the environment

Thank you!

