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Include

Forskningscenter for sosialt
inkluderende energiomstilling

Sustainable land use in low-populated municipalities

Anders Tønnesen

About the project

- An Include project involving the following researchers:
 - Anders Tønnesen – Centre for International Climate Research (PL, CICERO)
 - Monica Guillen-Royo – Centre for International Climate Research (CICERO)
 - Sindre Cottis Hoff - Centre for Development and the Environment (SUM)
- Case-study approach involving in-depth studies of four Norwegian municipalities
- Selection based on a mix of :
 - place characteristics (e.g. low population and low centrality)
 - land-use practices and policy decisions considered to provide insight to specific themes (e.g relating to building frequency and pattern)

Land-use changes in Norway

– De reelle ødeleggelsene av norsk natur er ukjent

Norsk natur forsvinner – bit for bit. Uten at vi har nok oversikt over ødeleggelsene, varsler flere eksperter.

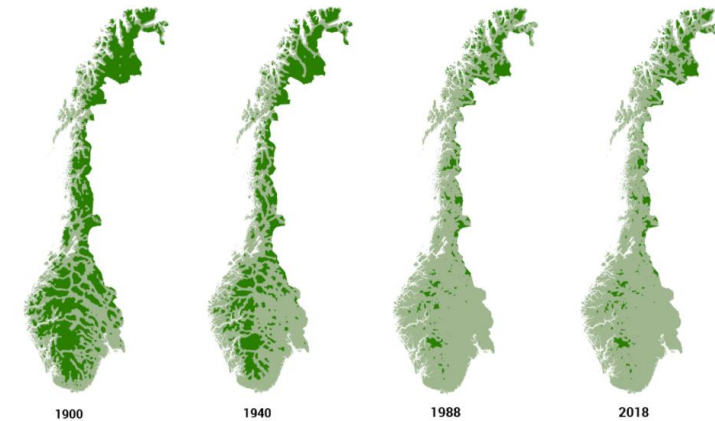


Bjørn Asle Nord
Journalist

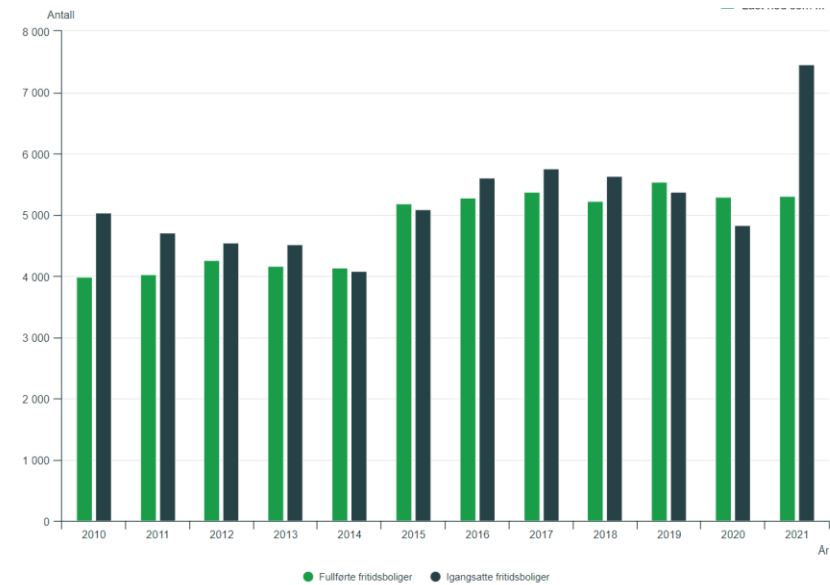
Katherine Duarte
@kate_duarte
Researcher

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NATUR FORSVINNER: Ekspertene mener det går en grense for hvor mange inngrep vi kan ha i norsk natur.
FOTO: JØRN B. OLSEN - ROLF SØRENSEN / SAMFOTO



● Villmarkspreget: Naturområder som ligger fem km eller mer i luftlinje fra tyngre tekniske inngrep



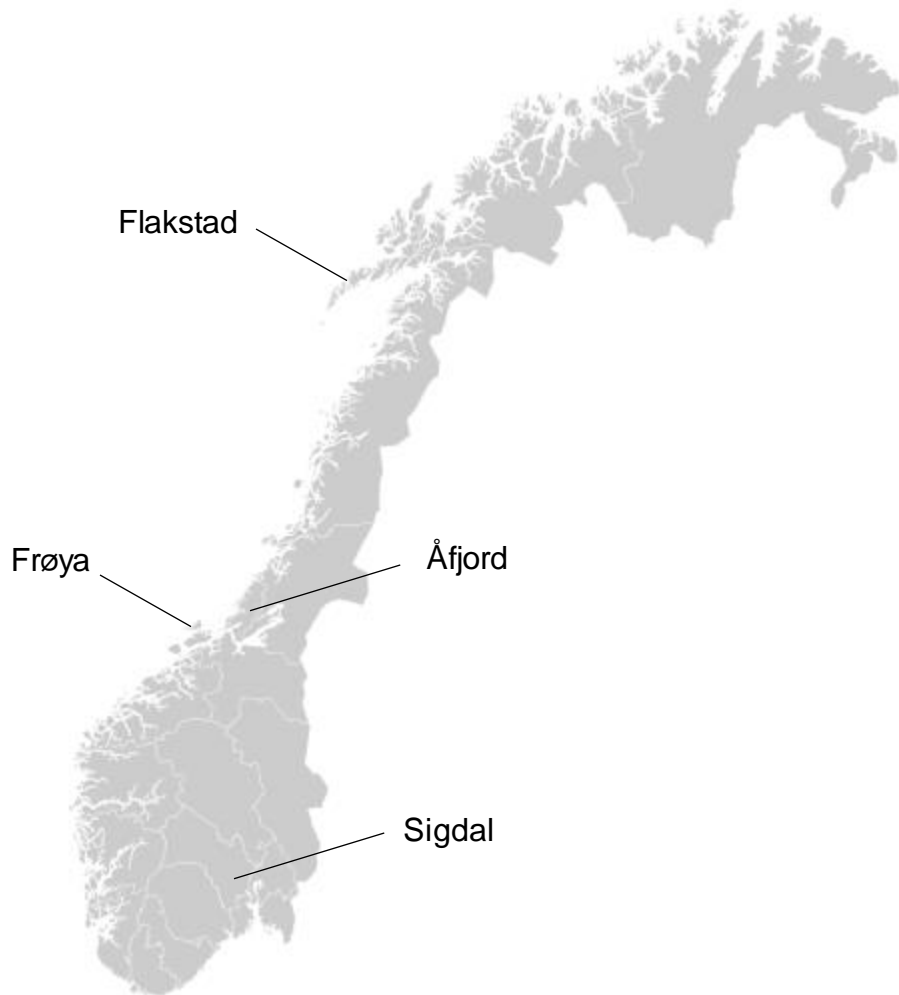
Point of departure 1

- Ecosystem degradation through land-use changes is a major contributor to CO² emissions, and therefore a driver of climate change
- The way land is developed and the relative location of housing, work, commerce and service influence travel behaviour and transport emissions
- In Norway, understanding land-use policy at the local level is especially important, as decision-making authority within this field of policy is delegated to municipalities

Point of departure 2

- Bulkeley et al. (2022) point to the need of addressing the political economies at work, among others involving the structure of value chains and flows of investments, in order to understand the barriers and opportunities for climate policy
- Our interest lies in understanding land-use and the governing of local economies
 - To attract population groups
 - To attract capital investments
- And how dimensions of social justice is entangled in local land-use management

The four case municipalities



	Population 2021	Development population 2011-221
Sigdal	3500	-1,7
Frøya	5200	20,3
Åfjord	4300	1,1
Flakstad	1200	-9,0

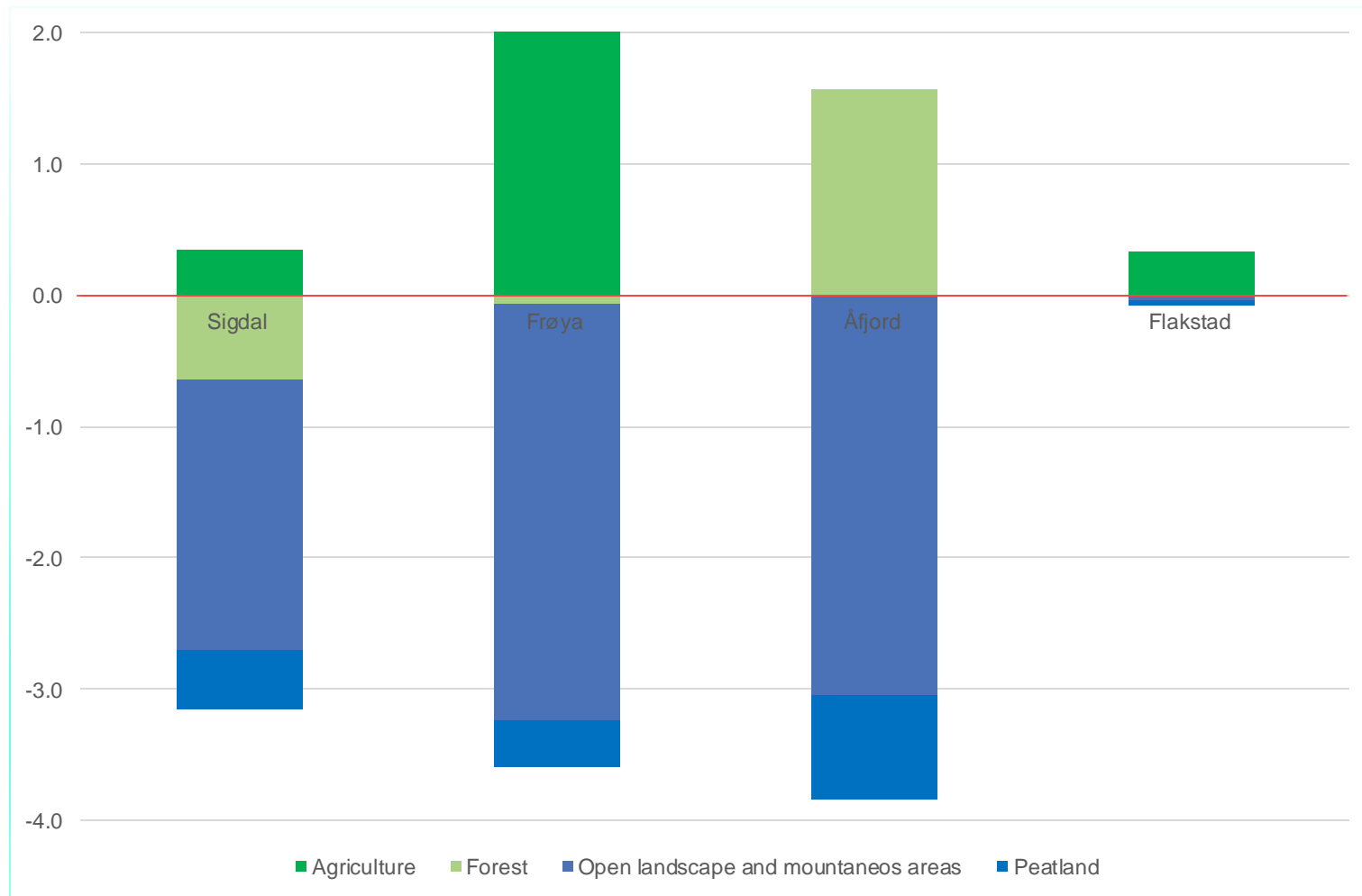
Selected characteristics of the built environment

	Average distance housing units and centre (km)	Average distance between commercial buildings and centre (km)	Number of new housing units 2017-2020	Total number of leisure buildings	Number of new leisure buildings 2017-2020
Sigdal	25,1	25,5	60	5023	324
Frøya	40	44,2	198	1085	30
Åfjord	10,3	8,3	102	1717	64
Flakstad	15,5	14,5	10	151	1

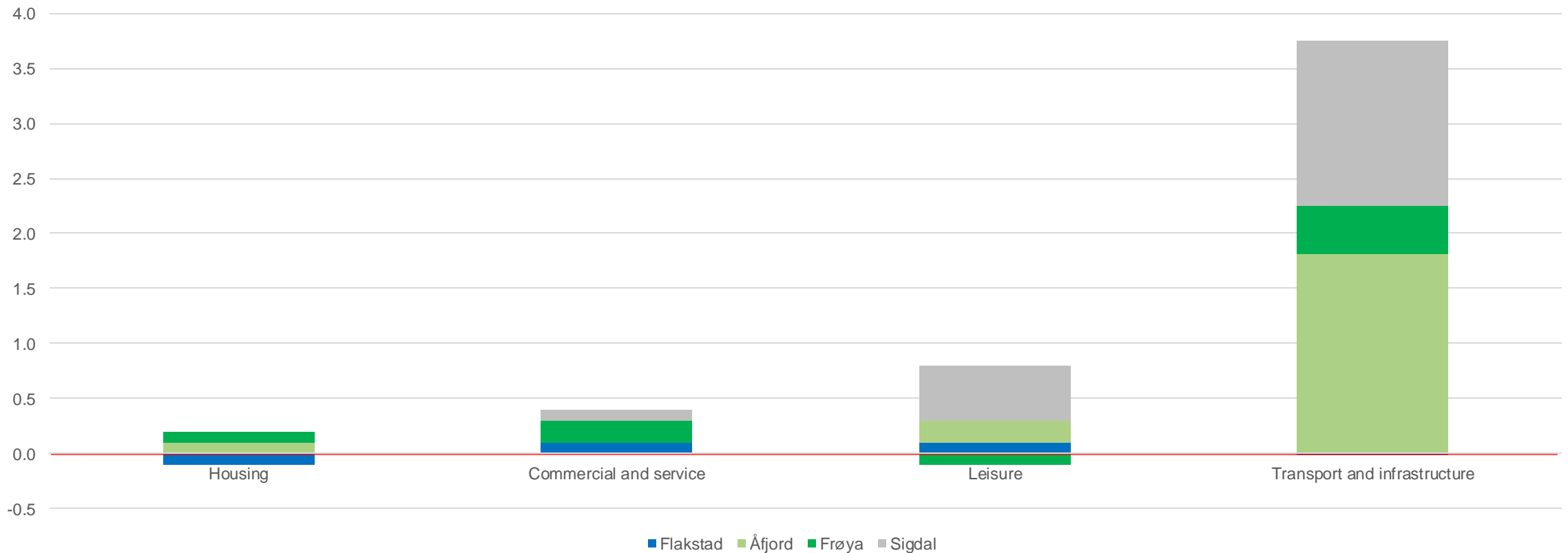
Land-use governance

	Number of approved exemptions from local land-use plans (2020)	Land granted for new leisure-building in the period 2020-2021 (m ²)
Sigdal	60	9450
Frøya	19	1914
Åfjord	192	1995
Flakstad	24	0

Substantial change within some categories 2011 - 2021



Transport and infrastructure - a major consumer of land-use resources



Land use-management as strategy to attract population

- Especially for two of the municipalities lack of dwellings is a clear limiting factor
- In Frøya there is a challenge of providing enough dwellings for the strongly increasing population
 - This puts pressure on land-use management and managers
- In Sigdal, where there is population decline, entrepreneurs and craftsmen are more oriented towards the lucrative holiday-home market instead of dwellings
- Especially in one municipality, Åfjord, the strengthening of rural-centre qualities was embedded in the local strategies to attract workforce and inhabitants

Land-use management as enabler of capital investments

- A comparative advantage of rural areas is their ability to offer abundant land for development:

We understood quite fast that the wind turbines would not be located in [the vicinity of the larger cities]. They will be where there are few people and abundant land

Åfjord local politician

- But the ripple effect may be limited:

There are almost no municipalities in the country where tourists spend less money than in Sigdal (...) Many landowners have made a good living by handing out properties, but we can't just keep selling a one-acre plot to an Oslo citizen. We must obtain more income of a permanent nature

Sigdal local politician

Growth and protection

- A clear expectancy from private stakeholders of not being hindered by slow public management or restrictive land-use principles
 - Similarly, interviewees at both local and regional levels sought to avoid being perceived as opponents to economic development
- In Flakstad principle of land-use neutrality was interwoven with both nature protection- and economic-growth strategies:

We have said no to people who want to build cottage fields . That's because we want to have a plan first concerning where we want development to take place and not. Often people and developers want to build holiday homes in the nice areas that tourists want to see, and by doing so the beauty of these areas is destroyed. So we will reduce our attractiveness if the municipality does not take control

Flakstad municipal officer

- Still, while the municipal plan highlights tourism as a priority, the climate effects of attracting large amounts of international tourists are not problematised
 - In July 2022, Flakstad hosted 10 times as many tourists from abroad compared to own population size

Concluding remarks

- The study illustrates the need to step beyond the local as a frame of reference to analyse land use and local sustainability strategies (Bulkeley and Betsill 2005)
- Also to better understand how understandings of social justice is part of local land use:
 - State involvement in local-level decision making
 - Rural communities serving needs of the society at large - at times with low return
 - Such as when informants point at the paradox of having established wind power parks, but severely lack access to energy
 - Or when informants point to the holiday-home marked outperforming the market for local dwellings and simultaneously not creating widespread economic ripple effects

Thank you for the attention!

anders.tonnesen@cicero.oslo.no