





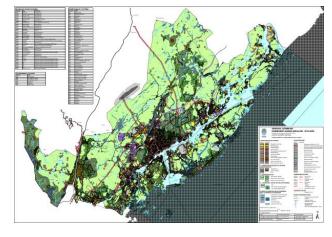


Land use and spatial planning conflicts and potential solutions

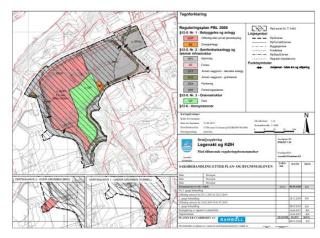
3.8.2022 Katrine S. Gunnarsli

Spatial planning i Norway – short introduction

- The Planning and Building Act safeguarding the public interest and managing land use
- Ensure sustainable development for the whole country
- Open to all to take part in decisions that concern their surroundings
- The municipality is the local planning authority
- Municipal master plan with a social element and a land-use element, and a municipal planning strategy
- And area or detailed zoning plans



Municipal master plan

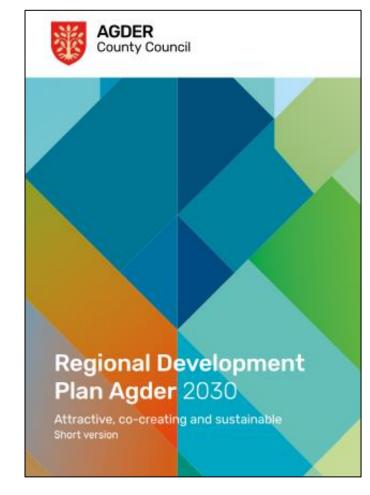


Detailed zoning plan



Regional planning functions

- Given that many planning issues affect circumstances beyond the individual municipality, the county authority is the regional planning authority
- In the regional planning area, the key tools are regional planning strategy, regional planning, intermunicipal planning cooperation and the regional planning forum
- The county has a free role in which it can take initiatives and steps to put forward ideas and co-operations between municipalities, NGOs, academic institutions and others to address common challenges in the region
- Among these initiatives we have initiated the development of a system of land use accounting



Regional plan



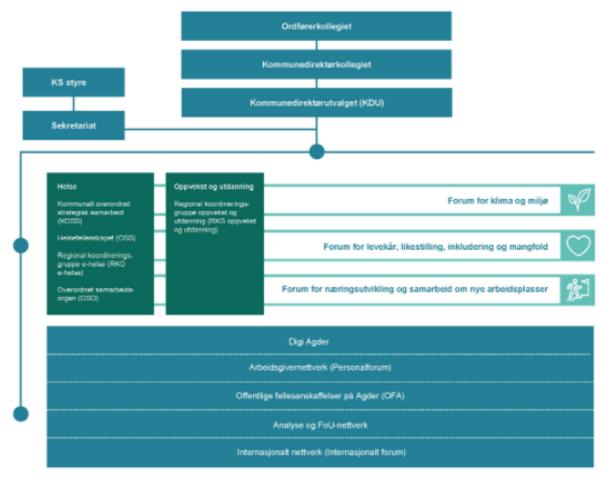
General challenges

- Habitat loss in Norway is caused by a change in the use of land:
 - infrastructure and new buildings
 - fragmentation of natural habitat
 - colonisation of open landscapes (by trees and shrubs)
- The municipal master plans are supposed to be developed within general national and regional guidelines... **But** the actual initiatives regarding changes in land use are more often than not driven by initiatives from the private sector. They are a consequence of ownership rather than initiatives in accordance with the needs of the general public
- There is still a lack of knowledge and awareness of overall consequences of certain land use changes, including on the distribution of habitats and ecosystem services
- We have yet to implement holistic systems for setting goals to limit land use changes and to implement them when these decisions are made, which is in context of the municipal planning strategies



System for land use accounting – prioritized in Agder!

- The regional model for cooperation in Agder county (#vårtagder) wants to prioritize development of a system for land use accounting
- This has also been requested by several municipalities, and the county may be a facilitator
- We want to use the good experiences we have had from working together with municipalities in developing and implementing climate accounting (from 2020 onwards)



Organization structure #vårtagder



A practical approach









Municipal master plans

Land use budget

Land use cover (Statistics Norway)

Man-made land use

Natural resource cover (National Mapping Authority)

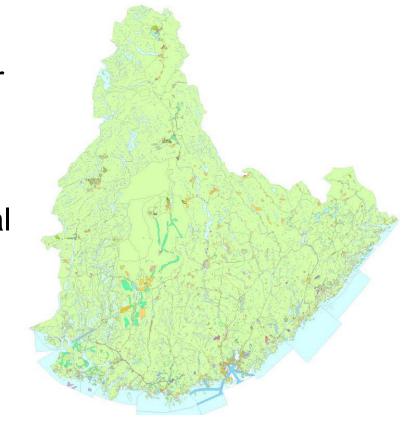
Habitats and ecosystems
(Norwegian Environment Agency)



What Agder County has done so far

Collecting data:

- Municipal master plans for all municipalities in Agder
- National coverage of man-made land use from Statistics Norway
- National coverage of natural resources from National Mapping Authority
- Habitats and ecosystems from Norwegian Environment Agency



This has been piloted in 2-3 municipalities



The sources

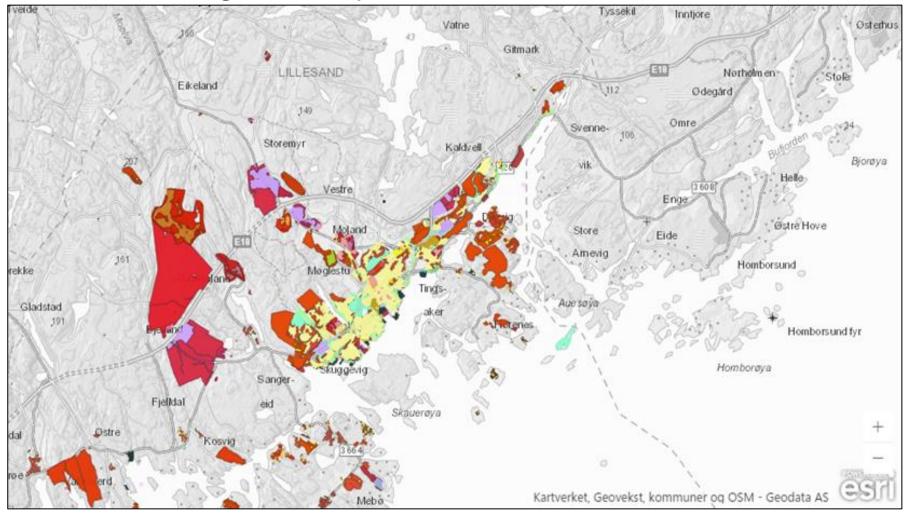
Municipal master plan Detailed zoning plan Coverage of man-made land use

- This section visualizes the different sources
- In the accounting we take into consideration planned and actual land use



Areas where the municipal master plan indicates future change in land use bust be validated against layer of actual land use

The municipal master plan allows changes of land use in the red areas.





Integrated Ecosystem Accounting

 Visualize the contribution of ecosystems to the national economy

 Document the ecosystem's contribution to human welfare, jobs and livelihoods

 Consists of area accounts where ecological status and ecosystem services in the areas are stated

 Climate functions is included as an ecosystem service, including carbon storage



Norsk institutt for naturforskning



No longer will we allow mindless environmental destruction to be considered as economic progress

António Guterres, Secretary-General of the United Nations

UN adopts a new statistical standard to measure the value of ecosystems



11 March 2021: Eurostat affirms that European official statistics produced on the basis of the new UN standard will be used for the implementation of the European Green Deal.



What's the "end game"?

- Land stock (a starting point):
 - Combined knowledge of natural resources and actual land use.
- Overview of habitats and ecosystems:
 - Natural resources
 - Mapped habitats
- Land use accounting / natural accounting:
 - Planned changes in the use of land and their impact on land stock, habitats, ecosystems and CO₂ emissions.

Repeated every fourth year

(corresponding with political processing of the municipal planning strategy in accordance with the Planning and Building Act)



Findings thus far

- The municipal master plans in Agder alone contains a total of 419 km² areas for development (current), and 226 km² with future status (totalling 645 km²)
- About 366 km² are *actually* used. This corresponds to app. 2,4 % of the area of Agder. The "remainder" amounts to 221 km²
- The municipal master plans we have today were made when we were less aware of the effects land use changes have on ecosystems and their climate impact
- We only know to a certain extent what we already have lost
- We are in process, nationally, to implement the UN sustainable development goals
- Our hope is that land use accounting will increase our understanding, lead to more efficient spatial planning and better preservation of habitats, ecosystems and their services



Thank you for your attention!

