

CLIMATE ADAPTATION STRATEGY AND RISK REDUCTION IN PRACTICE

GUIDE FOR IMPLEMENTATION AT LOCAL LEVEL

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CCA in Norway



Norwegian Climate
Adaptation Programme

- Project 2007-2012
- Interministerial group
- Chair: Ministry of the Environment
- Secretariat: DSB



SECRETARIAT



Norwegian Climate Adaptation Programme

Coordination & cooperation
Information and dissemination
Cities of the Future
Courses
International cooperation
www.klimatilpassing.no

MINISTRY OF THE ENVIRONMENT

Norwegian Climate Change Adaptation Programme

The climate is changing, and as a result, climate change adaptation is necessary. The work to adapt to climate change involves all administrative levels and most sectors of society. A challenge in the climate change adaptation process will be to gain better knowledge through research, mapping and practical experience. Klimatilpassing.no is an online portal which collects this knowledge. [Read more about the Norwegian Climate Change Adaptation Programme](#)

What's new

Spruce growth conditions deteriorating
Spruce is the most important timber species for the Norwegian forestry industry. Climate change impacts growth conditions in the forest, and in the driest parts of the country spruce forests are particularly vulnerable. That could have serious financial implications.
The Norwegian Forest and Land-use Institute. The County Governor in Vestfold. 2010-02-12

Sea level rise in Norway in the 21st century
The report "Næringsberegning i kystne i øyeblikket" (Sea Level Rise in Norwegian coastal municipalities, revised edition) presents estimates for future sea level rises for all coastal municipalities in Norway. The tables show estimated values for sea level rise, land rise and flooding for the years 2050 and 2100.
Directorate for Civil Protection and Emergency Planning (DSB), Norway. 2009-02-19

Climate Change Adaptation in Norway
Adaptation to climate change is an important priority area for the Norwegian Government. This brochure gives you information about how the work is organised.
Directorate for Civil Protection and Emergency Planning (DSB), Norway. 2009-02-19

Sectoral Responsibility

- Agriculture and Forestry
- Energy Sector
- Health Sector
- Coastal and Coastal Defence
- Municipalities and Counties
- Fisheries and Aquaculture
- Tourism and Leisure
- Transport
- Nature and Cultural Management
- Technical Services
- Transport and Communications
- Water, Energy and Wastewater

Climate Impacts

- Precipitation
- Temperature
- Floods
- Sea Level Rise
- Storms and Hurricanes
- Drought

Library

- Best Practices
- General Issues
- Maps
- Publications
- Research
- Surveys and Studies
- Tools



Main principles

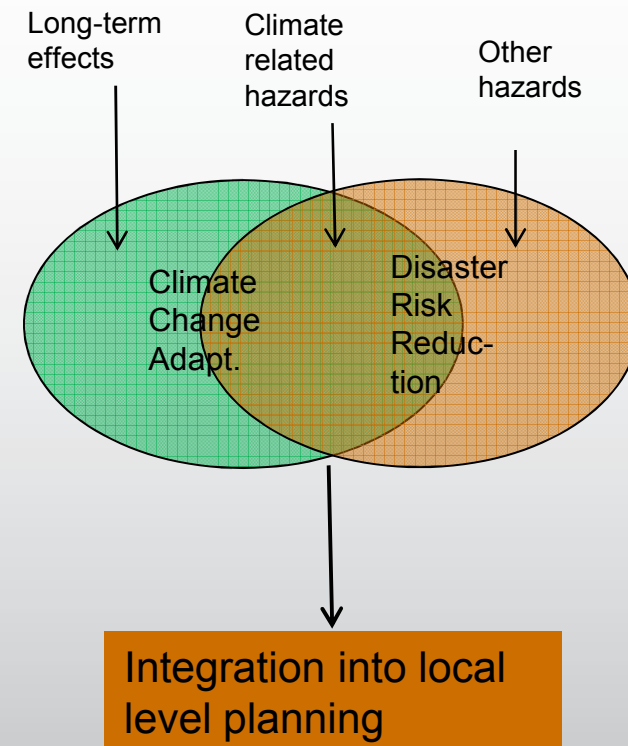


Norwegian Climate
Adaptation Programme

Principles of:

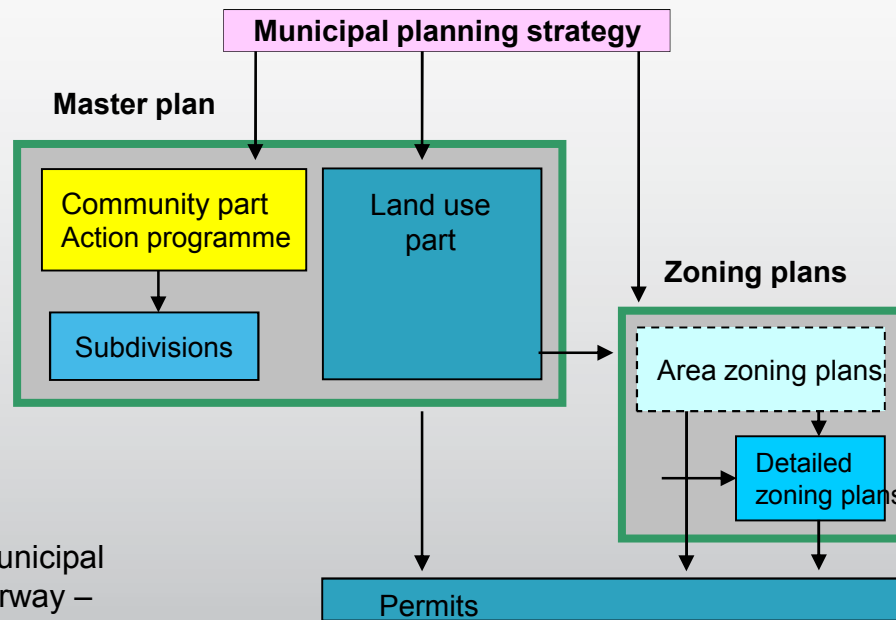
- Subsidiarity
- Similarity
- Responsibility

- Municipal level plays a key role
- Hyogo Framework for Action: 5 priorities



CCA according to HFA priority 1

Ensure that disaster risk reduction is a national and local priority with a strong institutional basis



Structure of municipal planning in Norway – Plan & Building Act 2009

- Awareness
- Commitment
- Involvement
- Integration



CCA according to HFA priority 2

Identify, assess and monitor disaster risks and enhance early warning

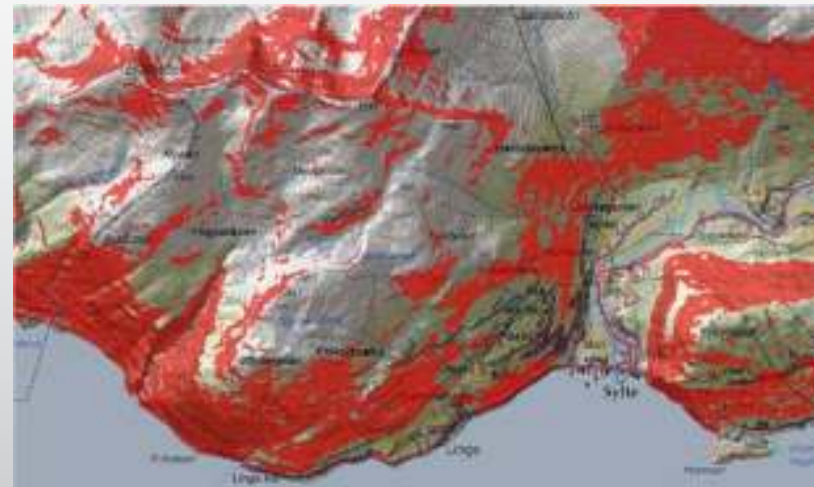
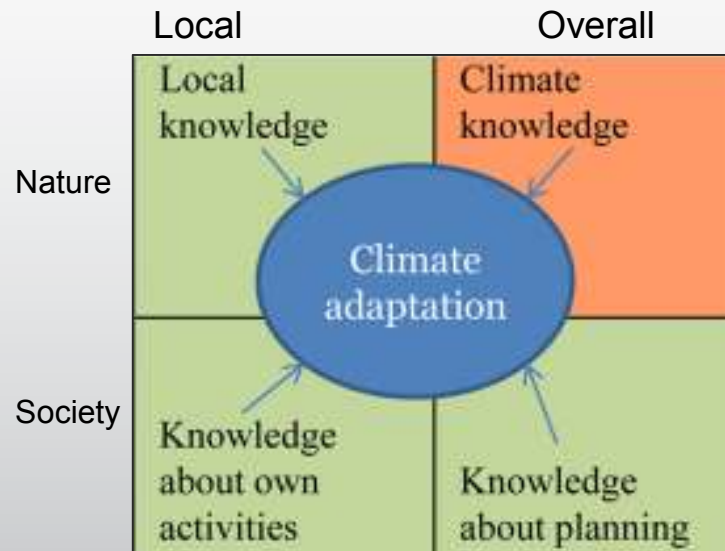
- Past experiences not sufficient
- Climate projections: knowledge, but not answers
- Vulnerability – knowledge about society & systems

- Sea level rise – three step approach:
 - Assess *current* vulnerability – sea level & storm surges
 - Add climate change impact – visualizing *future* sea level & storm surges
 - Define required measures based on technical safety standards (20, 200, 1000 years storm surge levels)



CCA according to HFA priority 3

Use knowledge, innovation and education to build a culture of safety and resilience at all levels



CCA according to HFA priority 4

Reduce the underlying risk factors

- 'Climate vulnerability' – not caused by climate change
- Make use of existing planning tools, laws and legislation
 - Plan and building act 2009
 - Civil Protection and Civil Defence Act 2010
 - Technical Regulations 2010
- What is urgent, what can wait?
 - Build on knowledge
 - Current climate: Define measures
 - Future climate: Integration into plans



The screenshot shows the website of the Ministry of the Environment, Norway. The page is titled "GUIDE: How to get started" and "What should you do and when?". It provides information on how municipalities can start adapting to climate change, including a step-by-step process proposal. The page also discusses the importance of knowledge of climate change and the need for cooperation with other municipalities, local industry, and commerce. The page is in Norwegian and includes a search bar and navigation links.



CCA according to HFA priority 5

Strengthen disaster preparedness for effective response at all levels

- Disaster preparedness should prepare for more frequent and more extreme weather events
- Prepare for gradual, long-term changes as well as extreme events
- Increased vulnerability to other types of events



Suggested strategy for local level CCA

1. Integrate climate change adaptation into planning processes
2. Risk identification: Assess climate vulnerability
3. Use available knowledge
4. Reduce factors that lead to higher climate vulnerability
5. Strengthen disaster preparedness and response



Based on Hyogo Framework for Action (2005)



Thank you!

www.klimatilpasning.no

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