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National organization of climate change adaptation in Norway

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Overview of presentation

- Brief history of CC adaptation policy in Norway
- Norwegian adaptation policy
 - Complexity challenge
- Priority issues
 - Strengthening knowledge base
 - Prevention and preparedness
 - Municipality adaption
- Problem characteristics – ‘wicked problem’



Official response

- 2008: Government priorities on adaptation
 - Adaptation target: reduce society's vulnerability to climate impact, and strengthen adaptive capacity
 - Mapping vulnerability, mainstreaming of climate impact in society's planning processes
 - Building and communicating knowledge basis on climate change and climate adaptation
 - Stimulate coordination, information, capacity-building
 - Expert committee appointed
 - Secretariat put under Directorate for Emergency Preparedness



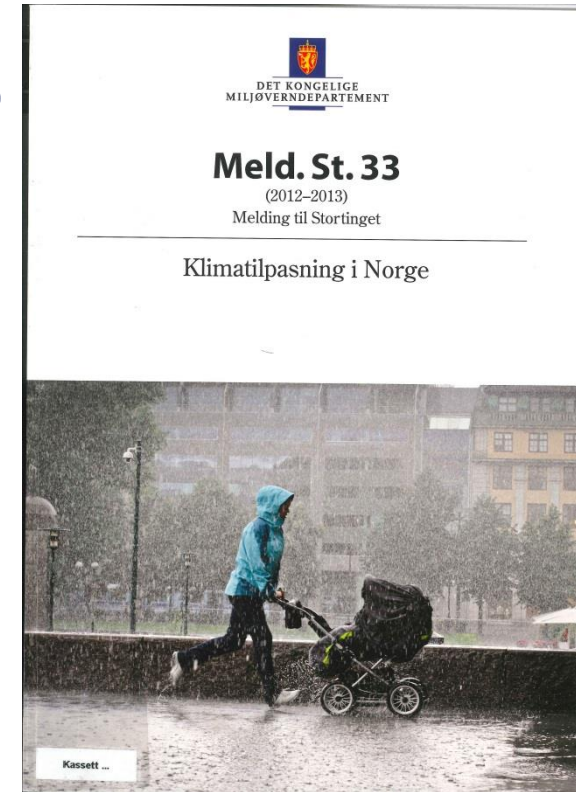
Green paper 2010

- 2010: Government-initiated report (NOU, green paper) assessing the impact of climate change in Norway
 - Climate is becoming «wetter, warmer and wilder»
 - Norway is robust, but also need for adaptation
 - Regional differences
 - Established the municipality as the main arena for adaptation
 - The state is responsible for «facilitating CC adaptation»
- Advice: Increase coordination, clarify responsibilities, strengthen planning and act under uncertainty



White Paper 2013

- 2013: Government follow-up through a white paper, adopted by parliament
- First governmental policy



Norwegian adaptation policy

- «Everybody» responsible for adaptation
 - Actors charged with functions affected by climate change responsible for adaptation
 - The authorities should facilitate adaptive action by individuals, businesses, organizations etc.
 - Climate impact one of several concerns to be addressed by planning and decision-making
- Ministry of Climate and Environment overall responsibility for climate policy, incl. adaptation
 - Advise and operative support from subsumed Environment Agency
 - Important responsibilities in other ministries and agencies



Norwegian adaptation policy

Ministry of Env. + sector ministries

Overall national political responsibility for its sector

National sector agency

Overall national operative responsibility for its sector

Regional authorities (county)

Defined responsibility for regional land use planning
Monitoring and advising municipalities

Local authorities (municipality)

Overall local responsibility across sectors



Governing adaptation is complex

- Given the nature of climate impacts
 - Local impact – geographical variation
 - Cross-sectoral impact
- Cross-sectoral and multi-level
 - Multiple levels of government involved
 - Multiple national public sector organizations involved (ministries, agencies)
- Decentralization a challenge, but also an asset due to need for expertise from various sectors and locations
- → need for coordination in addition to capacity-building measures



Governing adaptation is complex

- Cross-ministerial working group
 - Working group on adaptation established by the Ministry of Climate and Environment, with participation from affected ministries (transport, energy, civil protection, land use planning etc.)
- Adaptation secretariat in Environment Agency
 - Advise Ministry of Climate and Environment
 - CC adaptation coordination secretariat moved from the Directorate for Civil Protection to the Environment Agency on 1 Jan 2014
 - Support legal committee (lovutvalg) that will make proposal for improving regulatory framework for municipalities' management of surface water



Priority issues

- 3 priorities identified in white paper:
 - Strengthening the knowledge base
 - Scaling down international models to national/regional/local
 - Monitoring climate impact
 - Provide data to decision-makers
 - **Preventing and managing natural hazards**
 - Mapping risk, planning for preparing and handling crises, insurance
 - **Climate robust municipalities**
 - Main locus for adaptation



Priority #2: Preventing and managing natural hazards

- 4 main principles
 - Responsibility principle
 - Actors with general responsibility within an area will also be managing a crisis here
 - Subsidiarity/nearness principle
 - A crisis should be handled where it occurs
 - Equality principle
 - Organisational response should be as similar as possible to ordinary organisation
 - Cooperative principle
 - Clarification of government's overall responsibility for cross-sectoral civil protection and preparedness



Priority #2: Preventing and managing natural hazards

- At the local level
 - Municipalities overall responsibility for safeguarding civil protection and preparedness
 - Assessment of risk, including from climate impact
 - Consideration of CC to be taken into account long with other civil protection consideration
 - Emergency preparedness plan
 - Monitoring by county governor
 - Specific challenges related to surface water, esp. in densely populated areas
 - Water management a local responsibility



Priority #3: Municipalities

- Climate impact is local → municipalities particularly important for adaptation
- Weak impetus from higher levels of gov't
 - Few strong/binding demands from national level
 - Concern for climate impact should be mainstreamed into relevant local planning processes (e.g. land use planning)
 - Provision of guidelines and manuals
 - Regional level advisory role + monitoring
 - Municipality action in an 'institutional void'



Priority #3: Municipalities

- Great leeway for interpretation and choice
 - Local factors important for adaptive action
 - Adaptation vs. other important concerns
- Many local councils lack competence and resources to manage adaptation challenges
 - Many lack a general adaptation strategy
 - Few national funds allocated to adaptation measures
 - Practice varies considerably



Priority #3: Municipalities

- Low national push + lack of local competence and capacity
- Typically dependent on dedicated individuals
- Reactive policy-making in municipalities
 - Action typically taken *after* incidents
- ...which is insufficient
 - Must adapt to *future* climate impact, not past or present conditions



Cities of the future

- Network for major cities (13) for exchange of information and lessons
 - Initiated by the Ministry of Climate and Environment in 2008
 - Participation from other relevant ministries, and interest groups (including local/regional employers' association, KS)
 - Attention to challenges from climate impacts facing cities in particular
- 10 cities now have specific adaptation strategies



CC not isolated trends, other challenges ahead

- CC not only driver for change towards 2100
- Society will change in other ways that will affect climate impact
 - Digitalization, Centralization, globalization, commercialization...Changes in demography, technology, economy, culture
- Need to balance weight given to climate against other important concerns
 - cost/benefit-analysis
- Climate impact will interact with other challenges to society



Conclusion: adaptation a 'wicked problem'

- A wicked problem:
 - Can't be solved – but can be tamed..
- Complexity a major challenge to implementing adaptation policy
- Need to govern adaptation through decision-making involving multiple...under uncertainty
 - Government levels
 - Sectors
 - Actor types (public, private, ngos, citizens...)
- Therefore, adaptation is not 'implementable' but is a *process!*

