



Climate Change and
Societal Safety –
Practices from Norway

EEA Expert Seminar, Riga

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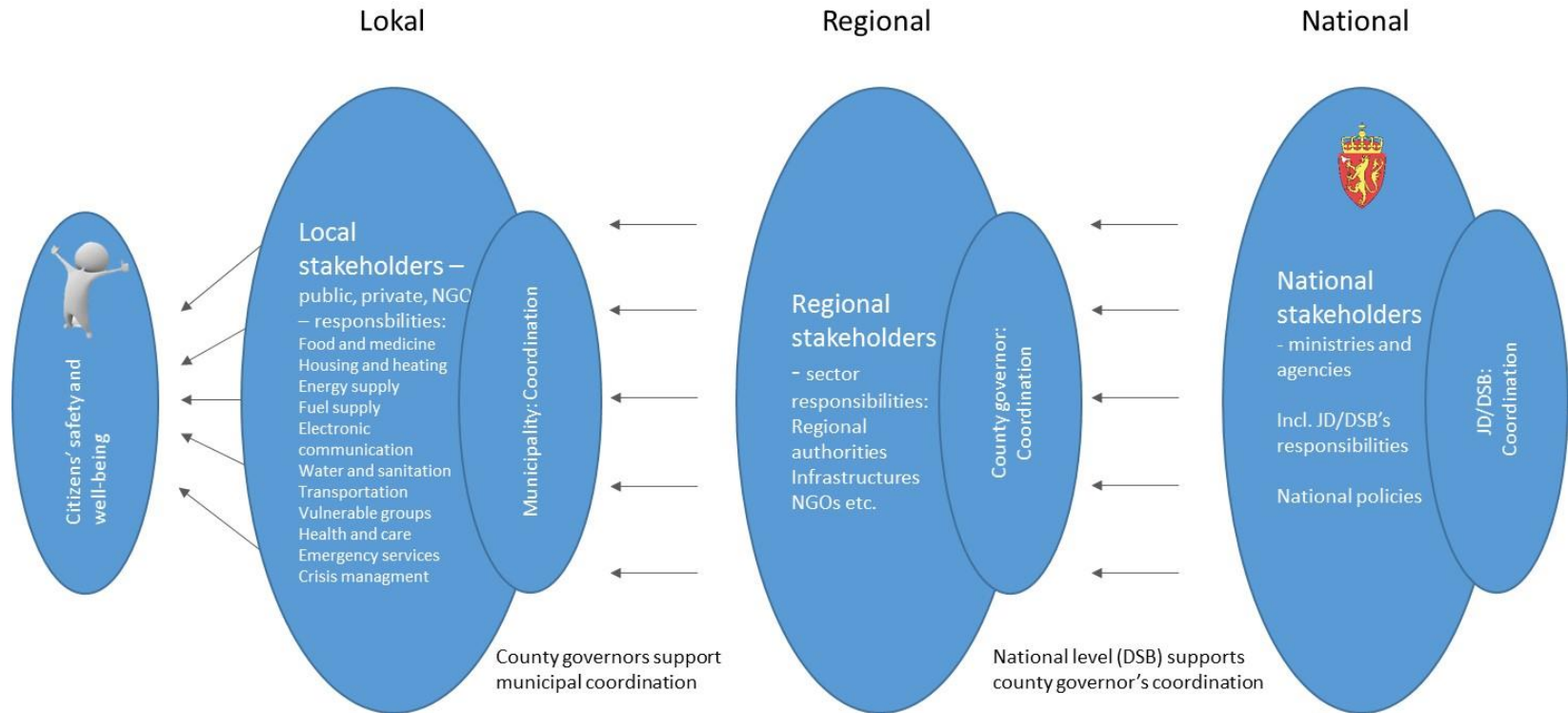


Directorate for Civil Protection (DSB)

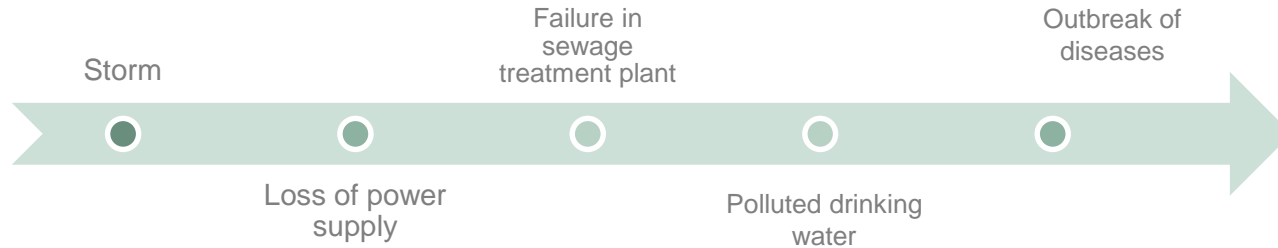
- Under the Ministry of Justice and Preparedness
- Coordination of societal safety at national level
- National authority for fire prevention, product safety, electrical safety
- National Civil Defence
- Training (schools and competence centres)
- Regional level: County Governors
- International cooperation; Nordic, EU, NATO, UN
- 650 staff

- Since 2004: Climate Change Adaptation (CCA)
- 2007-2014: National CCA program
- 2008-2015: 'Cities of the Future'

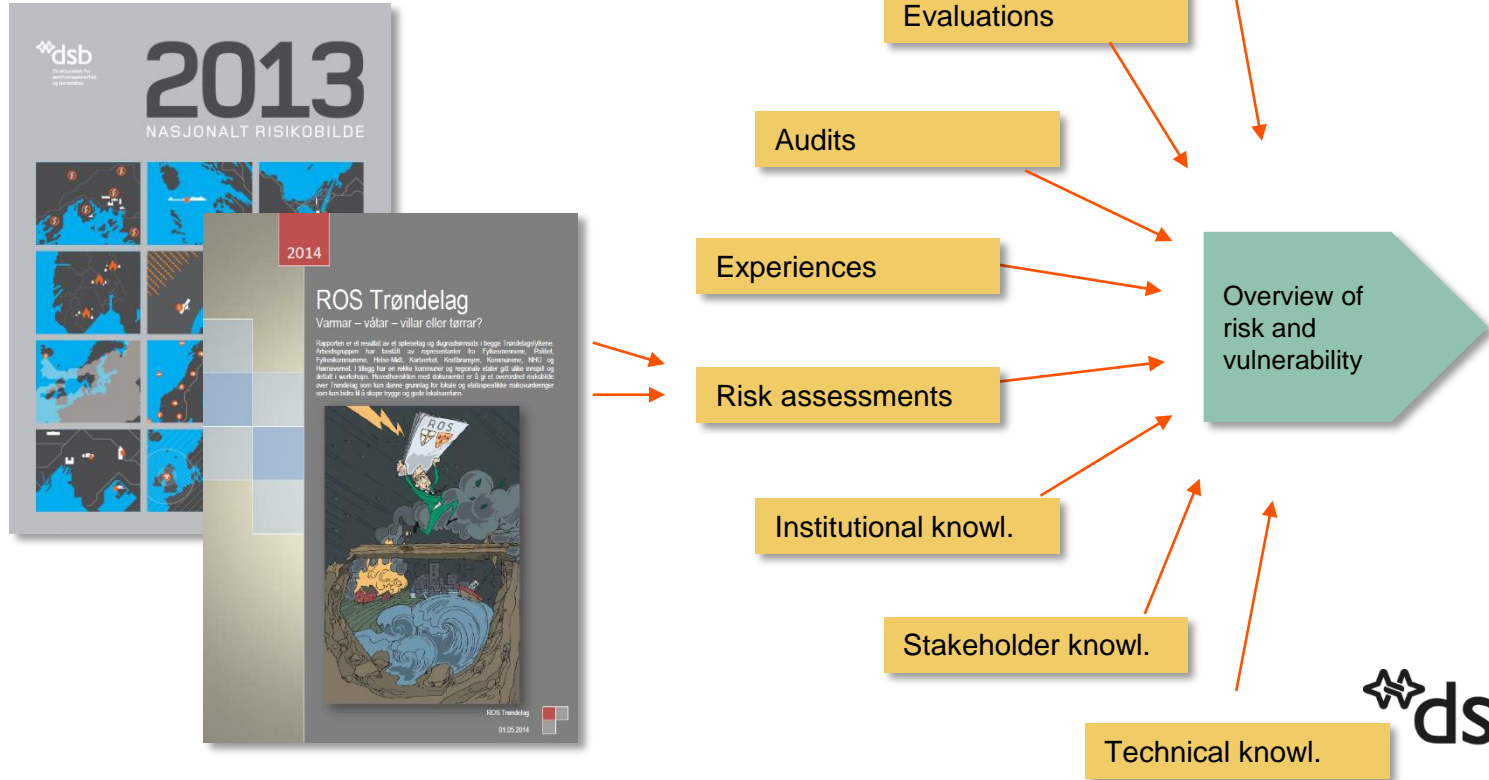
Societal safety – local, regional and national coordination



Disasters are complex

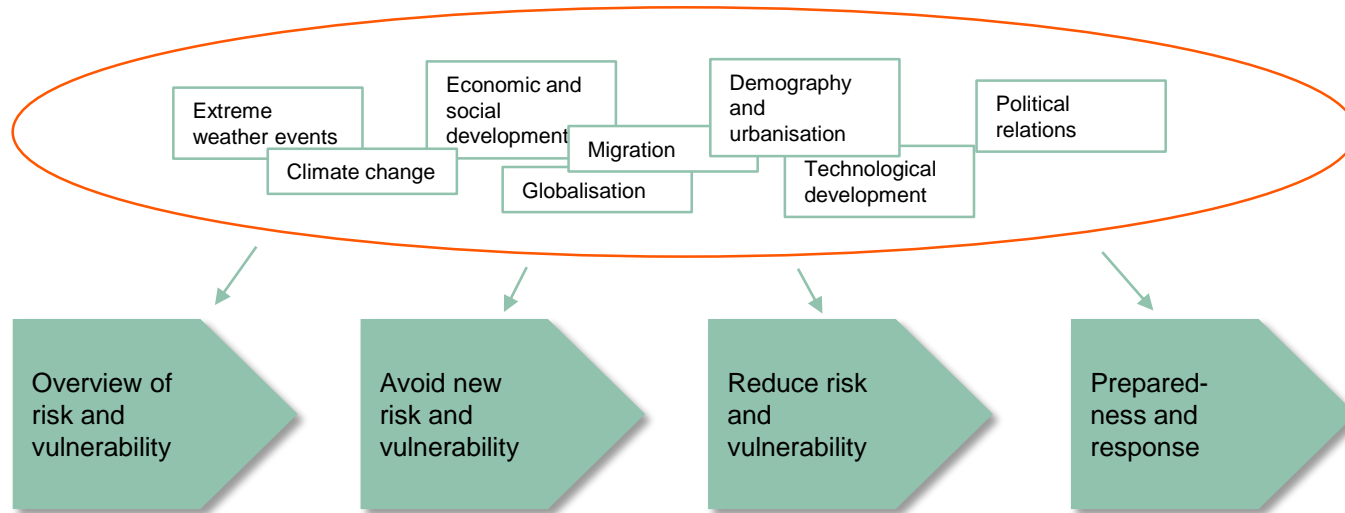


The knowledge base



Risk and vulnerability – today and future

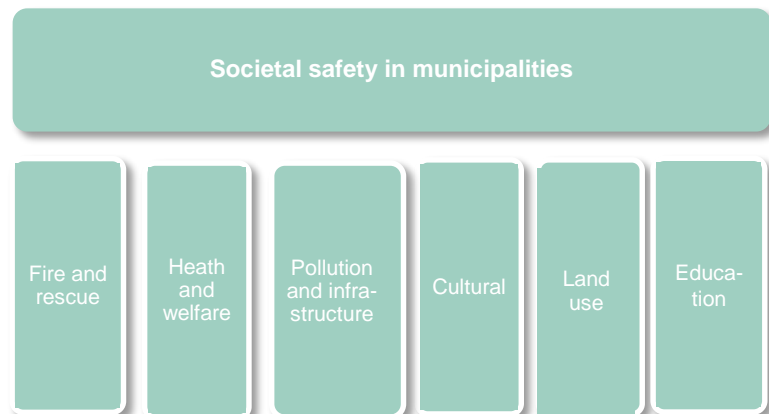
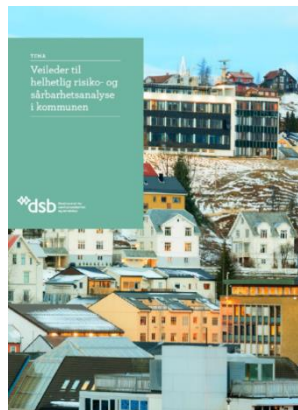
– multiple drivers, cascading effects



Role of municipalities

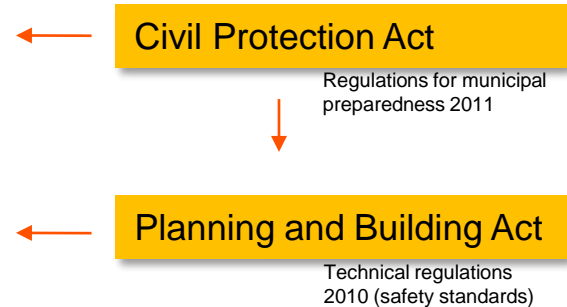
Responsible for safety and well-being of their own citizens:

- Coordinating role at local level
- Responsible for societal planning
- Avoid development in areas exposed to risk
- Planning and development of critical infrastructure



Tools in legislation

- Civil protection:
 - Coordination of societal safety
 - Holistic risk and vulnerability assessments
 - Prevention & Preparedness planning
- Societal planning:
 - Risk and vulnerability assessments for new developments
 - Land-use planning
 - Building permits
 - Sector planning



Impacts of Climate Change in Norway



Photo: Bjarne Boge

- More heavy precipitation
- More floods
- Landslides and avalanches
- Sea level rise/storm surges
- Melting sea ice in the Arctic

Role of municipalities

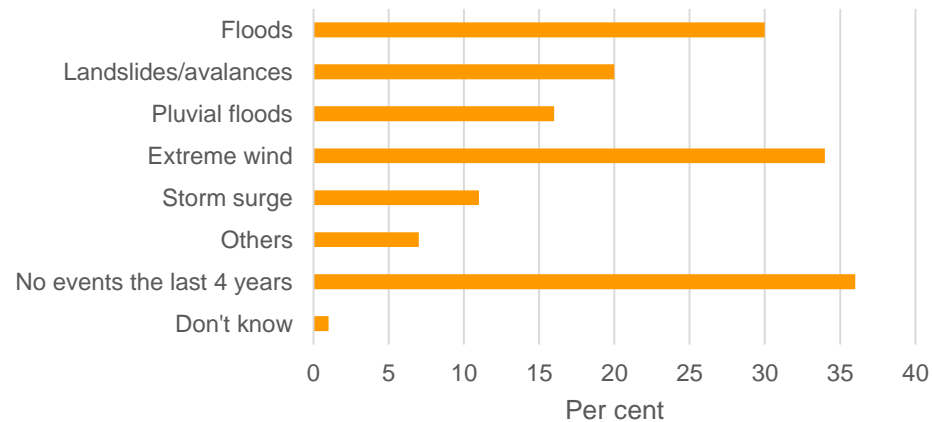
- Societal planning
- Across sectors
- Integration of societal safety and climate change adaptation



Exposure to natural hazards

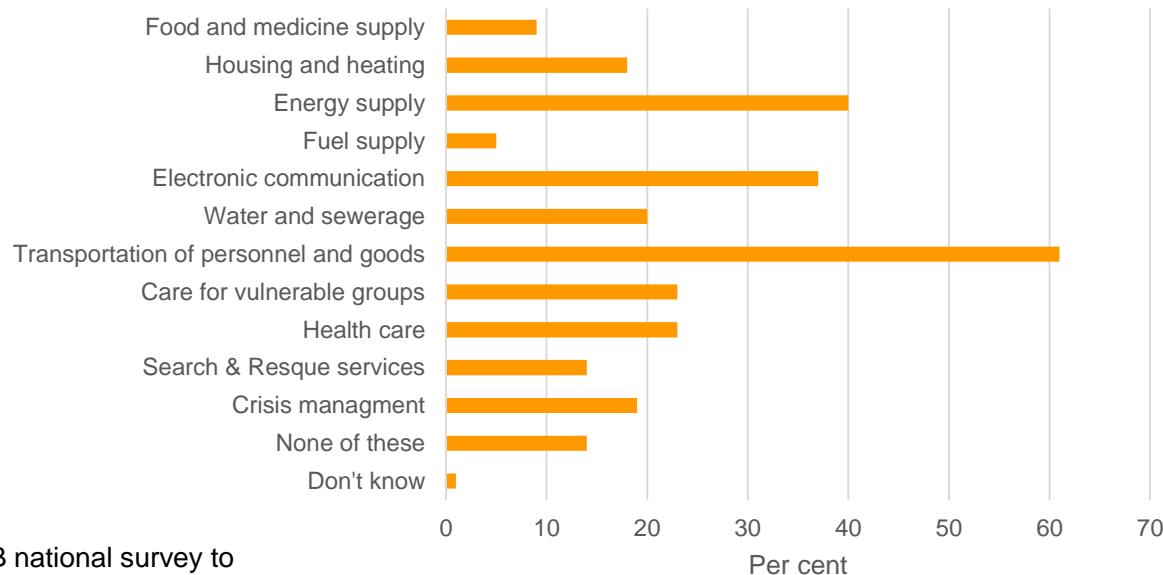


Has the municipality been affected by disasters caused by natural hazards the past 4 years?



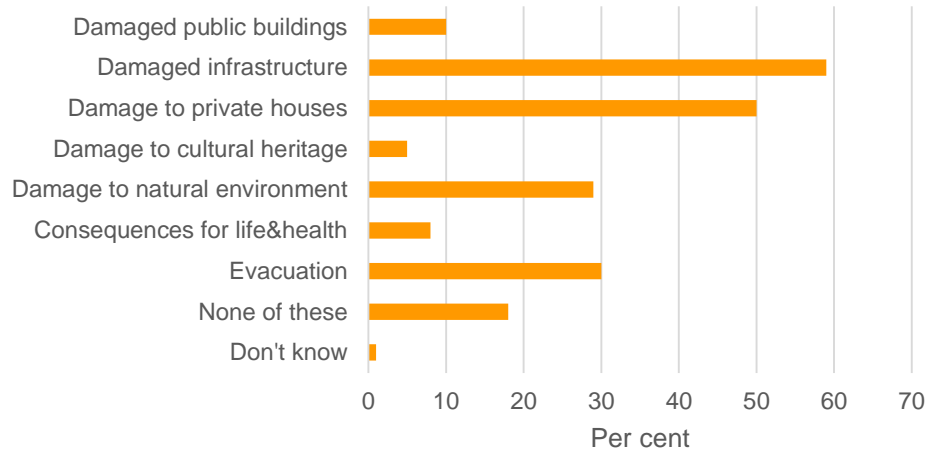
Consequences of natural hazards

Which societal functions were affected by the event?



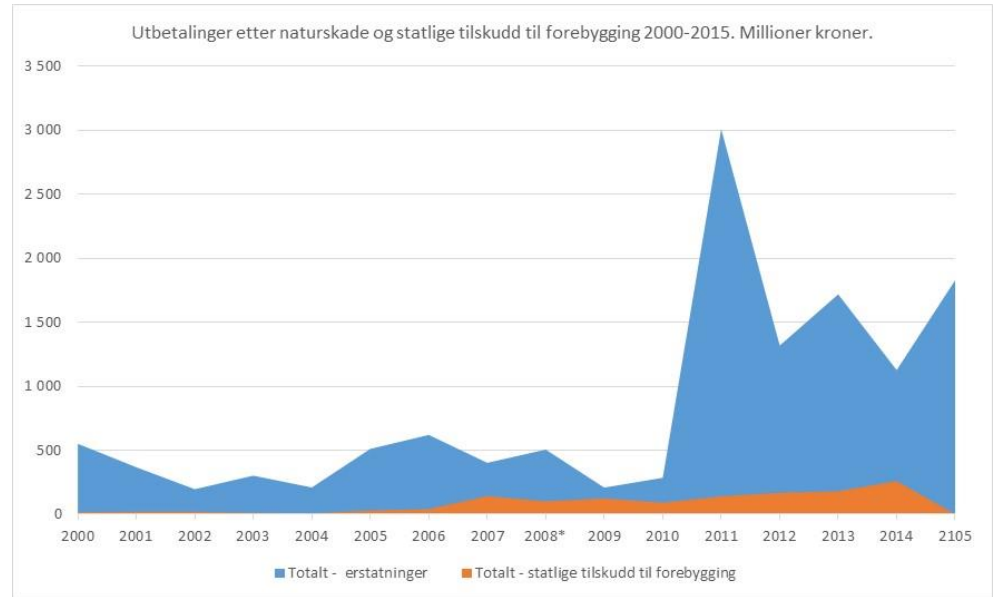
Consequences of natural hazards

Did the event lead to any of the following?



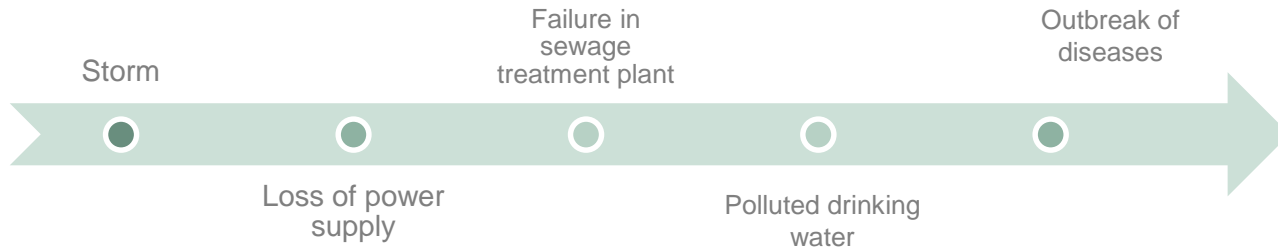
Consequences go across sectors...

- ...and they cost:
Since 2000:
 - €1.260 bn. on reconstruction
 - €143 mill. on prevention



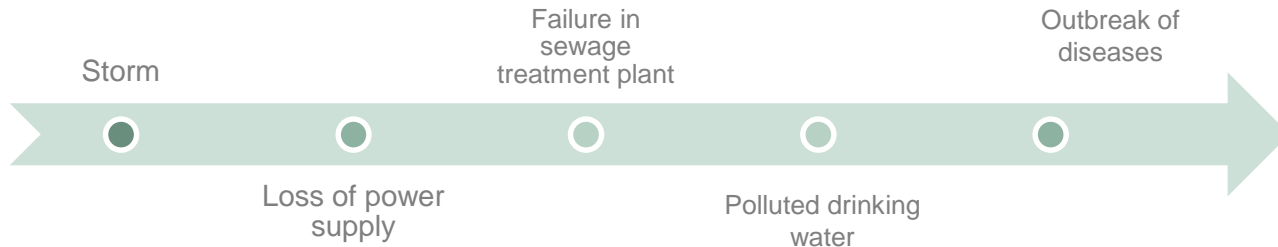
Risk & Vulnerability assessments – elements

- Scenario based & cross sectoral
- Hazard > probability?
- Consequences for life & health? Material losses? Environment? Economic losses? Etc.
- Reveal interdependencies & cascading effects



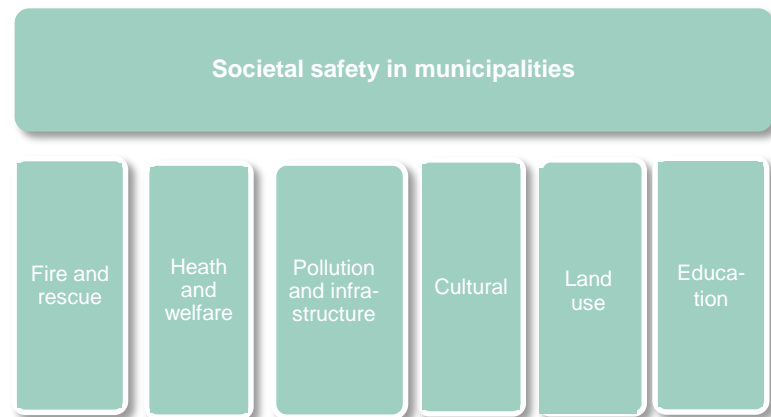
Risk & Vulnerability assessments – elements II

- Vulnerability – specific groups or systems?
- Uncertainties – both scenarios and consequences
- Governance – possible to reduce consequences?
- Scenario relevant to others?
- Acceptance in society



Using the results of the assessment

- Which purpose?
 - Societal planning?
 - Disaster preparedness?
 - Land use planning?
 - Sector specific planning?



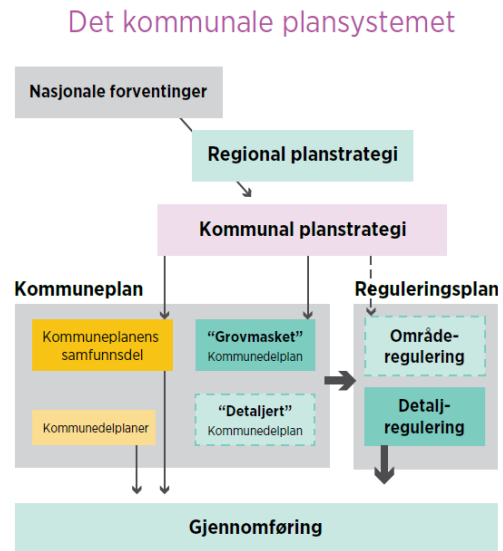
A starting point

- Climate scenarios
- Review of climate change impacts across sectors (Green paper)
- National strategy on adaptation (white paper)

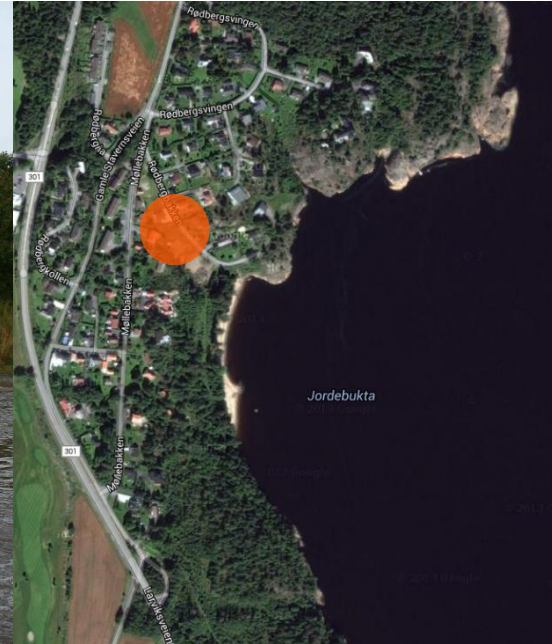


Integration into planning

- Most important: How to integrate adaptation into planning processes?
- Need knowledge about:
 - Legislation
 - Institutional framework
 - Political processes
 - Social, economic, technological development etc.



Can we always blame climate change?



Thank you!



European Forum for Disaster Risk Reduction, Oslo 2013