



Climate change adaptation in Nordic countries

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Outline

- Planned adaptation and national strategies in Europe
- Existing adaptation policies and measures
 - What has enabled adaptation policies to emerge?
 - What are the adaptive capacities of Nordic countries?
 - What are the challenges of multi-level governance in terms of adaptation?



Inertia of the climate system

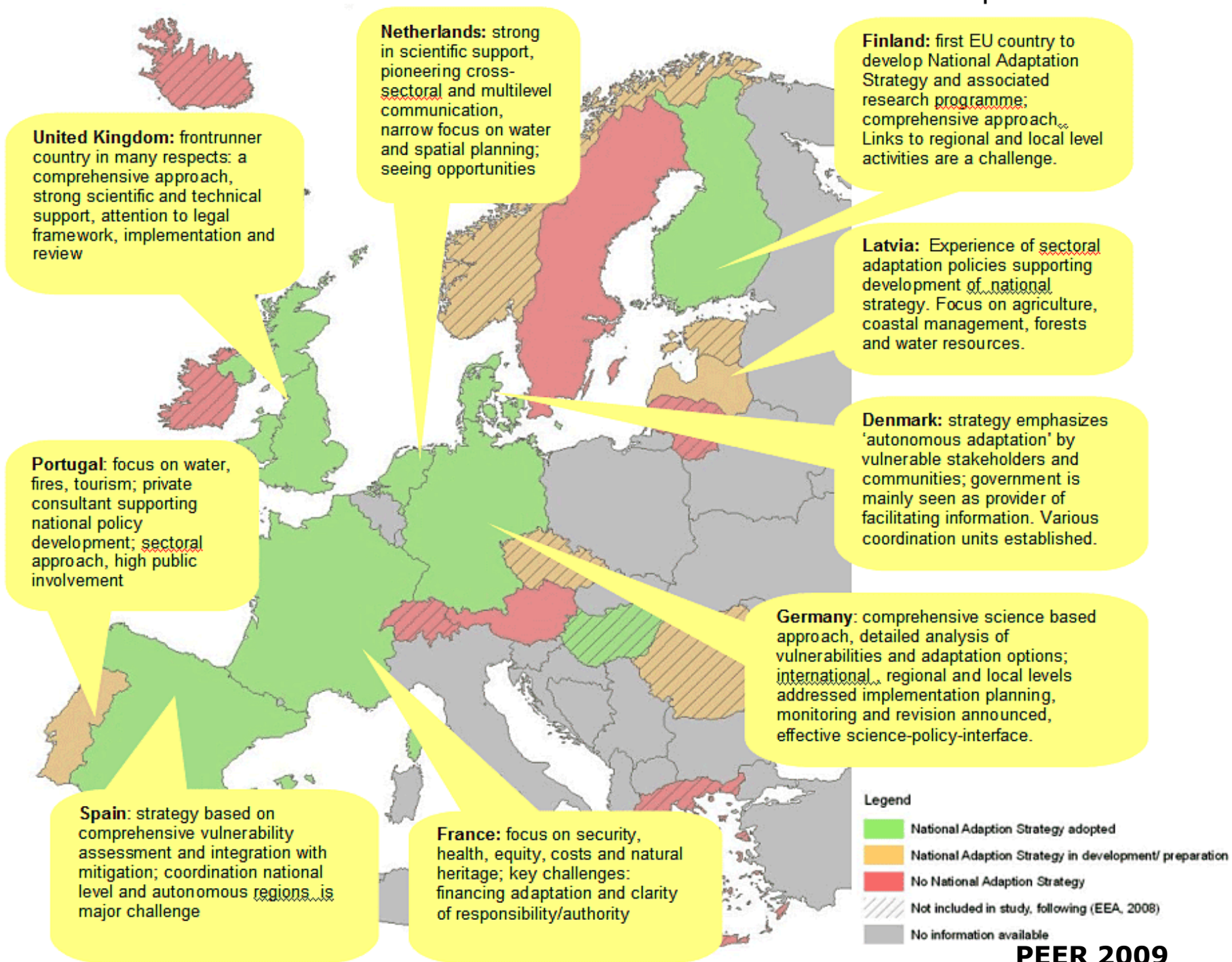
Irrespective of the scale of mitigation measures, adaptation measures will be required anyway, due to the inertia in the climate system.

Over the next 20 years or so, even the most aggressive climate policy can do little to avoid warming already 'loaded' into the climate system (IPCC 2007).



Planned adaptation

- Focus in research has been on planned adaptation and adaptation policy across multiple levels of governance
- 'Planned adaptation to climate change denotes actions undertaken to reduce risks and capitalise on the opportunities associated with global climate change' (Füssell 2007)





Norway

- First entered into discussion in 2002 through the No.54 Report to the Storting
- In 2006 Norwegian climate adaptation programme established
- In 2008 a Cross-ministerial Working Group was set up on preparing a national strategy
- Isolated cases of local adaptation initiatives, almost exclusively mitigation based



Sweden

- Entered into discussion through extreme weather events
- Commission on Climate and Vulnerability in 2005
- A Government Bill 'Coordinated Climate and Energy Policy' in 2009
- Few local initiatives pushing the national agenda forward (City of Göteborg)



Finland

- Early discussions in 2002
- Publication of the 2005 NAS with a cross-sectoral approach
- Implementation progressive on certain sectors whilst slower on others
- Regional and local voluntary initiatives have emerged (City of Espoo, Helsinki Metropolitan Council, KUUMA-municipalities, City of Tampere)



Emergence of adaptation policy

- Domestic and international weather impacts and other events raised the profile of adaptation
- Policy entrepreneurs have been influential in driving adaptation policy
- Supporting research reports and policies strengthened the agenda



Framings of adaptation policy

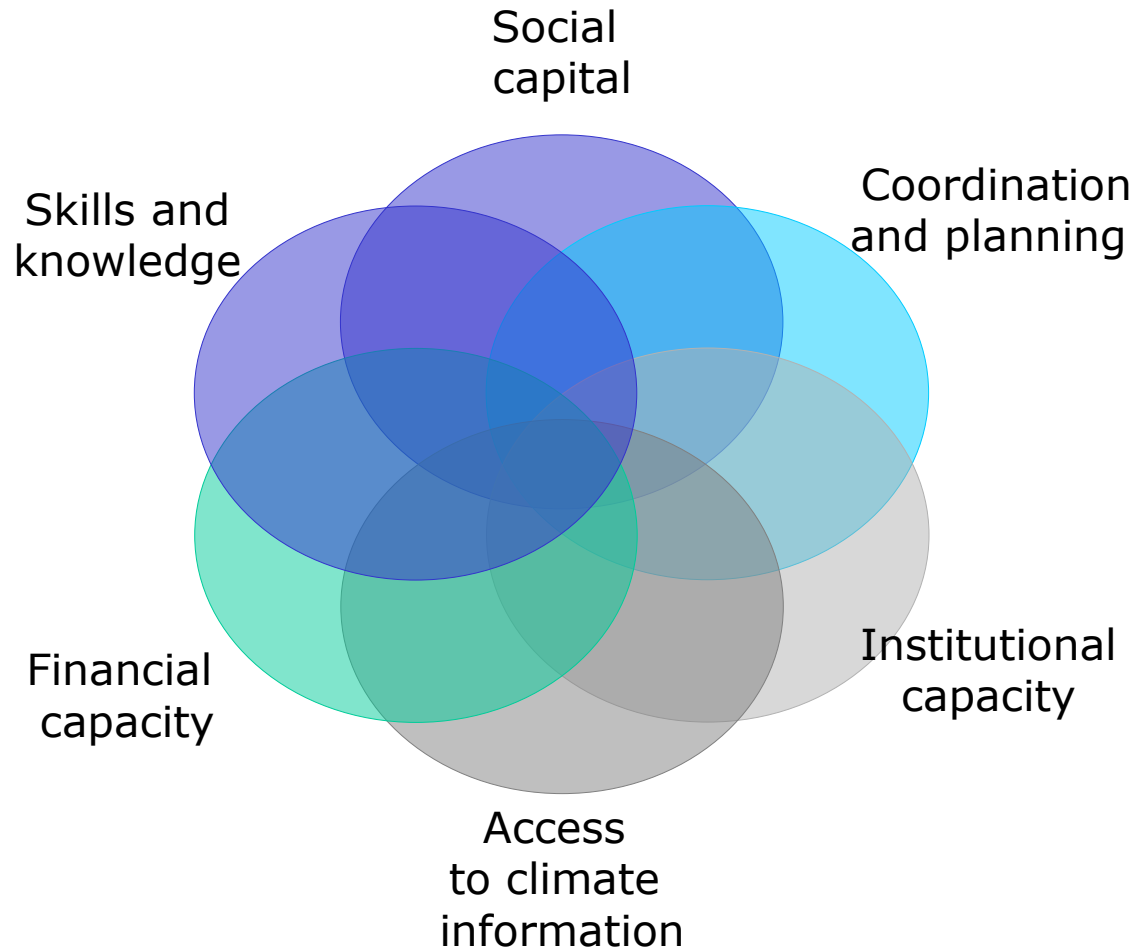
- In Finland climate threats can be overcome through environmental planning
- In Sweden through identification of vulnerable areas in terms of landslides and flooding
- In Norway climate impacts are a new security threat
- Municipalities framed on-going management as adaptation



Adaptive capacity

- 'The ability of a system to adjust to climate change (including climate variability and extremes), to moderate potential damages, to take advantage of opportunities, or to cope with the consequences' (IPCC 2007)
- A locally-determined set of resources and conditions that constrain or facilitate the ability of a system to adapt (Adger et al. 2005; Smit and Wandel 2006)

Aspects of adaptive capacity





Adaptive capacity at the national level

- Political support and interest in adaptation, fostered by positive public support and awareness
- Science-policy linkages have been instrumental
- Strong horizontal networks and wide stakeholder participation



Adaptive capacity at the regional level

- Legal and political capacity affect the ability to act on adaptation
- Regional networks across countries open up resources
- Ability of regional bodies to commit other actors to adaptation strategies



Adaptive capacity at the municipal level

- Clear differences between large urban cities and smaller municipalities
- Capacities are increasingly depended on each other
- Human and political capital become more important in order to access networks and information
- “There is no time to think”



The challenges of multi-level governance

- Who has the responsibility for adaptation?
- Limited ability of the Government to steer local authorities in the Nordic countries
- In Sweden, state role to distribute responsibility between municipality, land owner and insurance sector
- In Finland the Land Use and Building Act 2000 (revised 2008) steers municipalities and regions in land use planning



Concluding thoughts

- National adaptation policies are still taking shape
- Sub-national initiatives emerging in urban areas across Europe
- What are the implications for the rural areas and rural research?



Acknowledgements

- EUR-Adapt-
Organising adaptation to climate change in Europe
- Climate change, local response, and multilevel governance



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VESTLANDSFORSKING





Thank you!

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