National and international responsibility

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Questions

- Should climate change adaptation policies focus on the expected effects of climate change manifested within the national borders? Or should society also develop policies relating to possible effects of climate change taking place abroad? How should these two approaches be prioritized?
- Which actions should be undertaken to maximize Nordic impact on the international climatechange agenda?

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"So act as if the maxim of your action were to become through your will a universial law of nature"

- Kant's categorical imperative

Responsibility?

SUSTAINABILITY?

WORLD CITIZENSHIP?

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs"

- Brundtland Commission report

We are quite many: http://www.worldometers.info/world-population/

Current World Population:

7,039,681,045

... we were also on Wednesday (9.5.2012)

Arctic

Decrease in Arctic sea ice coverage Greenland ice sheet loss Higher risk of biodiversity loss

W towl July

North-western Europe

Increase in winter precipitation Increase in river flow Northward movement of freshwater species Higher risk of coastal flooding

Coastal zones and regional seas

Sea-level rise

Higher sea surface temperatures

Northward movement of species

Increase in phytoplankton biomass

Higher risk for fish stocks

Northern Europe (boreal region)

Less snow, lake and river ice cover Northward movement of species More energy by hydropower Lower energy consumption for heating Higher risk of damages by winter storms Increased river flows Higher forest growth Higher crop yields More (summer) tourism

Mountain areas

High temperature increase Less glacier mass Less mountain permafrost Higher risk of rock falls Upwards shift of plants and animals Less ski tourism in winter Higher soil erosion risk High risk of species extinction

Central and eastern Europe

More temperature extremes Less summer predipitation More river floods in winter Higher water temperature Higher crop yield variability Increased forest fire danger Lower forest stability

Mediterranean region

Decrease in annual precipitation Decrease in annual river flow Increasing water demand for agriculture Lower crop yields More forest fires Less energy by hydropower More deaths by heat waves More vector-borne diseases Less summer tourism Higher risk of biodiversity loss Higher risk for desertification

Definitions

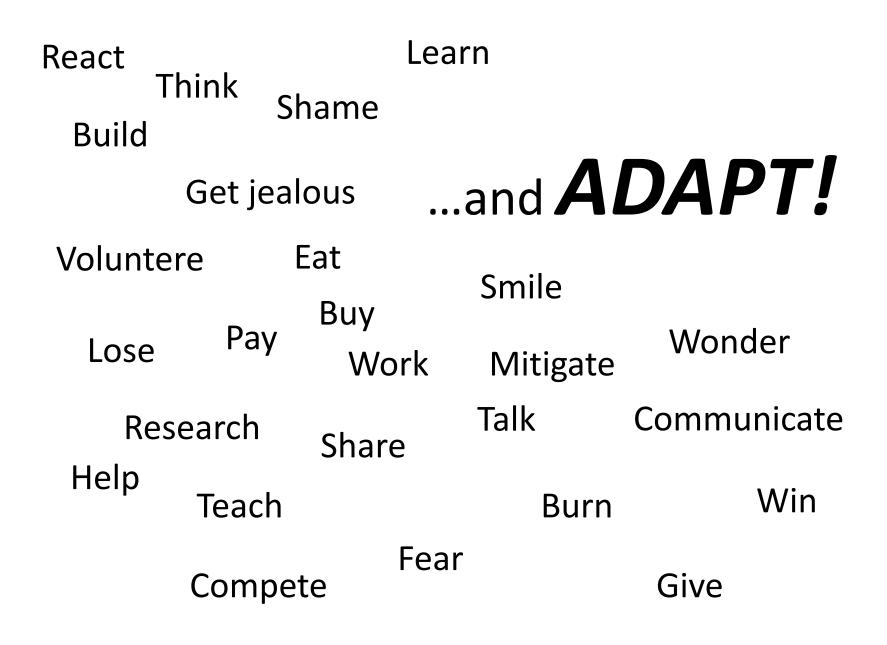
 Adaptation: Dealing with current and future consequences of climate change

 Mitigation: Reducing GHG emissions and enhancing sinks.

Questions, tried to answer

1. At which level climate change adaptation should take place? Prioritizing?

2. How should Nordic countries react? Our role?



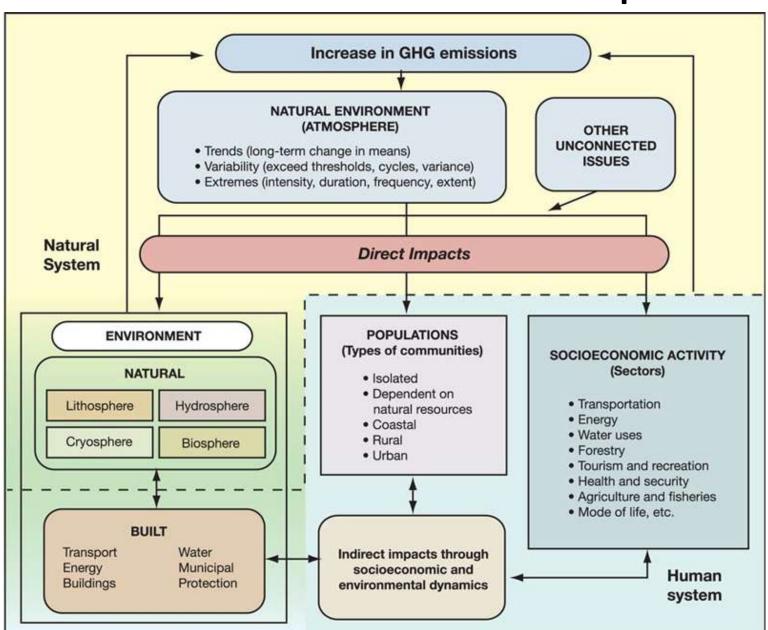
Status quo Activities from local to global

- Copenhagen: The world's first carbon-neutral capital by 2025
- Germany: law to promote renewable energies
- EU: cut GHG emission by 20% (1990-2020)
- Kyoto: 5% less emissions over the period 2008-2012 compared to 1990
- Clean Development Mechanism: fulfill emission limitation commitments by implement an emission-reduction project in developing countries.

Status quo Activities from local to global

- Adaptation Strategy for Salacgriva (Latvia)
- Helsinki Region Adaptation Strategy (sectoral approach)
- National adaptation strategies
- EU white paper on climate change adaptation (asks for knowledge and policy integration)
- UNFCCC convention article 4 (points to adaptation in general and to support for developing countries)

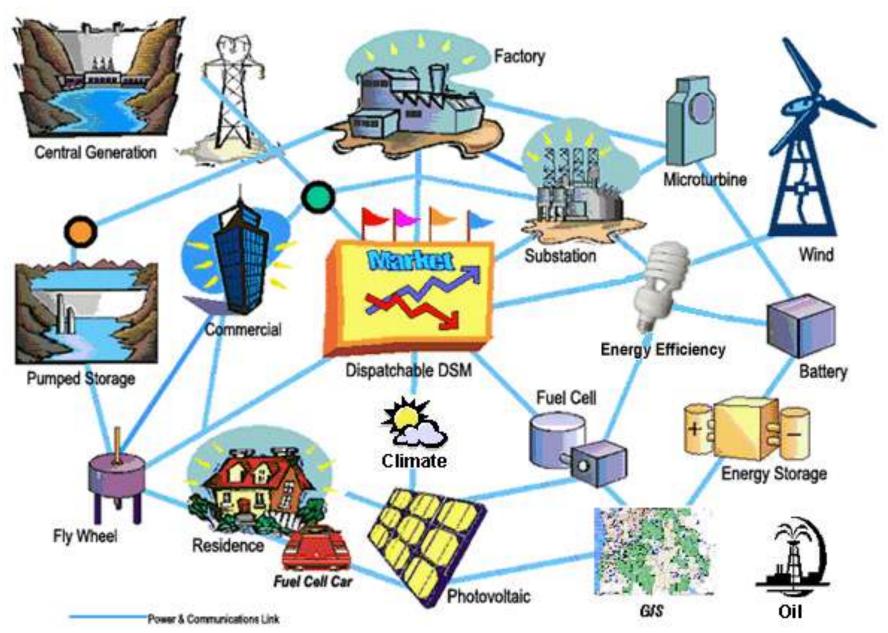
What we should adapt to?



change/community-adaptation/assessments/290 http://www.nrcan.gc.ca/earth-sciences/climate

http://www.bpa.gov/energy/n/tech/energyweb/

(Policy) Integration



Negotiations and responsibility

Nordic countries' role

- Ranking on political agenda
 - High in wealthy countries
 - Low in developing countries

Why to negotiate?

Joint action means big action

Benefits and the paradox of free-riding

Worst outcome: No-one acts

 Someone has to take a leading role: Nordic countries have incentives for this!

How to reach a successful agreement?

- Direct benefits vs. additional benefits

- Timing
Now or in 50 years?

LocationLocal / Global

Probability of reaching an agreement

- Additional benefits
 - Relatively higher impact in developing countries
 - High on political agenda
- Increases probability of reaching an agreement
- More than a cheese pizza?

Responsibility

- Polluter pays principle
 - EU directive 2004/35/CE
 - IPCC stated as one of the possible
 - UK legislation
 - Arguable in the individual level (Caney, 2005)
- Developed countries
 - Research, education, technology, setting an example, helping other countries

Nordic countries

- Research Sharing knowledge and know how
- Setting an example
- Helping developing countries
 - Nordic Environment Finance Corporation (NEFCO)
- Education (inside & outside the Nordic area)

Actions to maximize impact of Nordic countries in the CC agenda

Nordic centers of excellence – Climate change

"The three projects shall contribute to improving our knowledge about the effects of climate change, with a focus on possible solutions to how we best can adapt to these changes in the future."

TRI - Top-level Research Initiative

 Promoting green technology companies, ambitious municipalities and environmentallyconscious consumers

Responsibility – As scientists

- Increase the knowledge on climate change
- Informing policy makers about initiate discussions - involvement in the policy making
- Communicating the research in a proper way

Conclusions

- Adaptation and mitigation from local to global scale important
- Top-down and bottom-up approaches
- Nordic countries actively involved in both
- Was the collaboration experiment successful?

There are no simple answers

- Caney, Simon (2005) Cosmopolitan Justice, Responsibility, and Global Climate Change, Leiden Journal of International Law, 18 (2005), pp. 747–775
- Rentmeester, Casey (2010) "A Kantian Look at Climate Change," *Essays in Philosophy*: Vol. 11: Iss. 1, Article 7
- Rübbelke, Dirk T. G. and Pittel, Karen, Climate Policy and Ancillary Benefits - A Survey and Integration into the Modelling of International Negotiations on Climate Change (November 2007). Zentrum Für Europäische Wirtschaftsforschung (ZEW) - Centre for European Economic Research Discussion Paper No. 07/064