

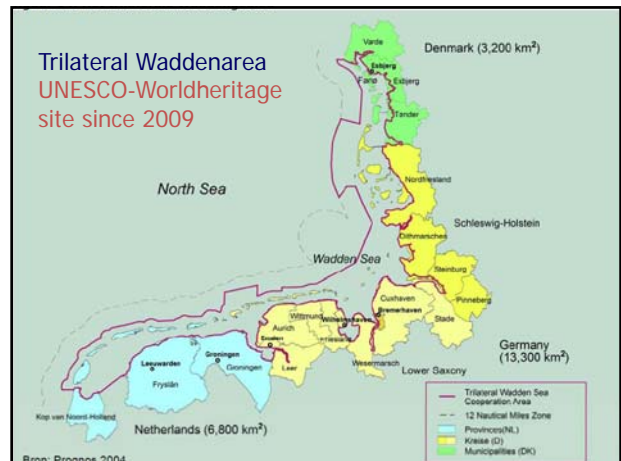
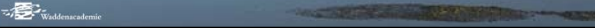
“Green Growth of the Regional Economy, High Tech Development and Job Creation: the case of the Dutch Waddensea region”

Presentation at the International Waddensea day
Earth System Science Centre, Faculty of Science,
University of Copenhagen, Denmark, November 3, 2011

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The responsible governments in the Netherlands chose for:

To preserve the natural values of the Wadden Sea Region while allowing sustainable shared human use with nature and the landscape as the basis for both ecological and economic functions as for the livability of the inhabitants



Working on robust resilience

Ecosystem
Economy

“Defining the value of the landscape and nature”

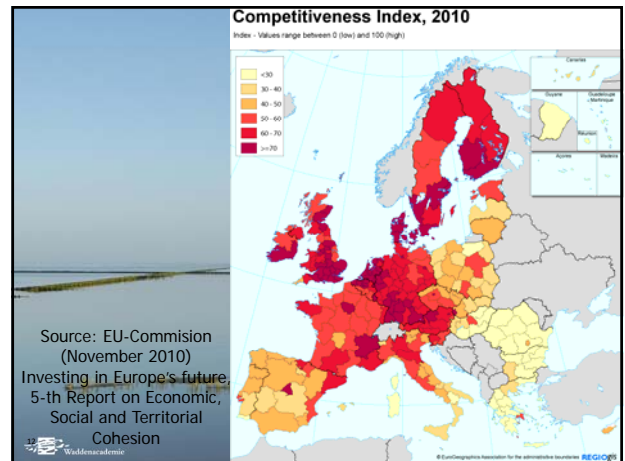
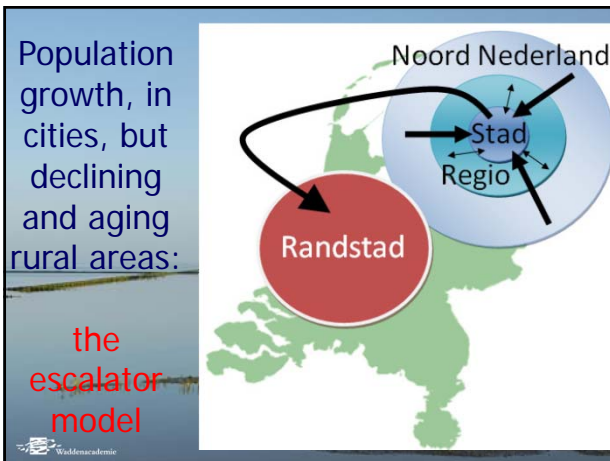
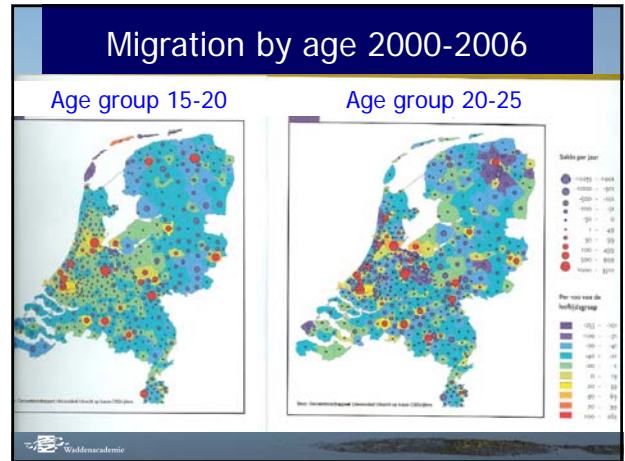
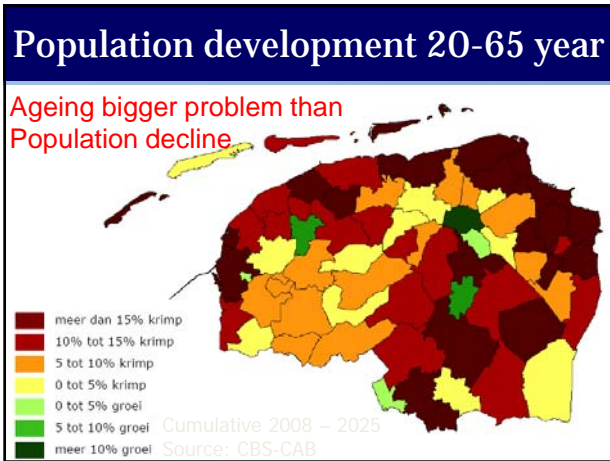
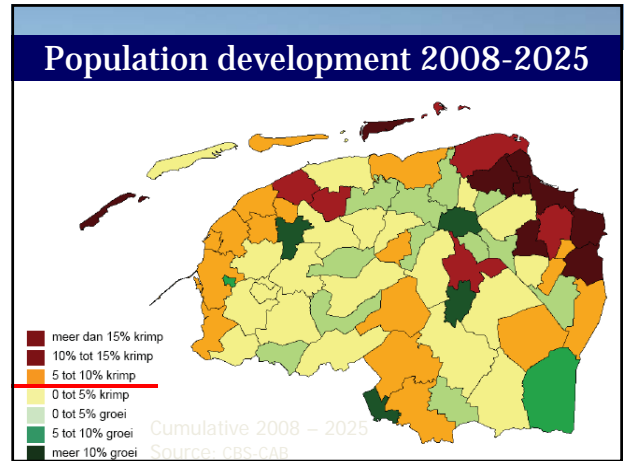
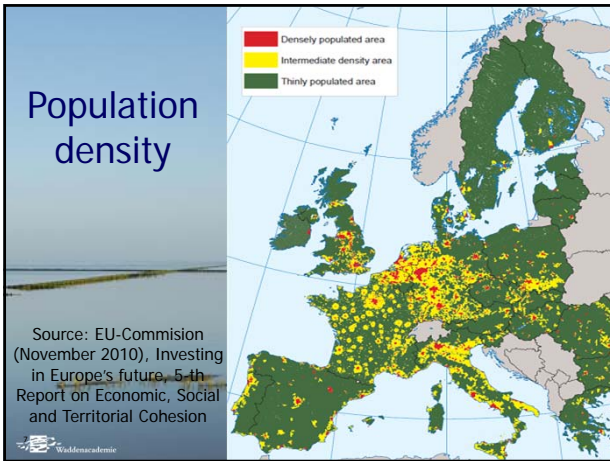
SUSTAINABLE DEVELOPMENT

Sustainable development fundamentally aims for the coherent treatment of social-cultural, ecological and economical treasures



Resilience of the Wadden Sea Area





Social-science perspective

- Human behavior: humans shouldn't be considered as an exogenous factor with mostly negative influence on natural processes and the ecosystem
- Governance: administrative density leads to a decrease of effectiveness of measures and the consequential effects of interventions.



The Waddensea Region:

located central in Europe, but lower income, higher unemployment and facing population decline; higher educated young people leave
 EXPLICIT POLICY GOAL: sustainable future for nature AND the inhabitants

→ green growth strategy!?!?

- * Nature is an important asset for tourism
- * Focus on energy: natural gas extraction, new powerplants, solar and wind energy: how many jobs?



Valuable natural assets



Valuable natural assets



Valuable natural assets??





Seal dispute on San Diego beach



Supporters of the seals say they are a popular draw for tourists.

The Californian city of San Diego has been given 72 hours to remove harbour seals from a small beach area originally designated for children.

They were ordered by a judge to comply with an earlier order to clean up the Children's Pool at La Jolla beach.

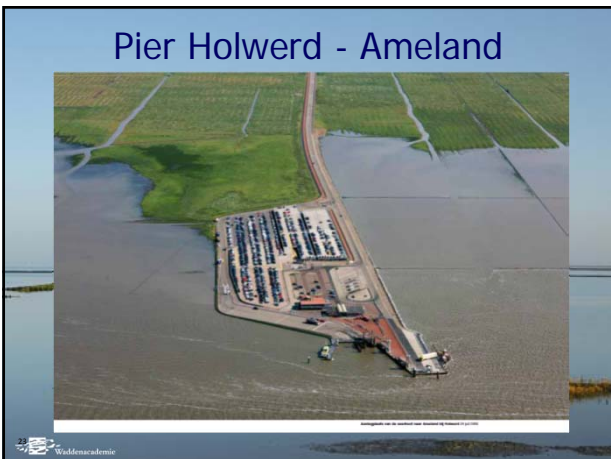
Tourism: German beach life island versus coastal tourism



Waddenpainter Geurt Busser: sand tourism versus mudtourism



Pier Holwerd - Ameland



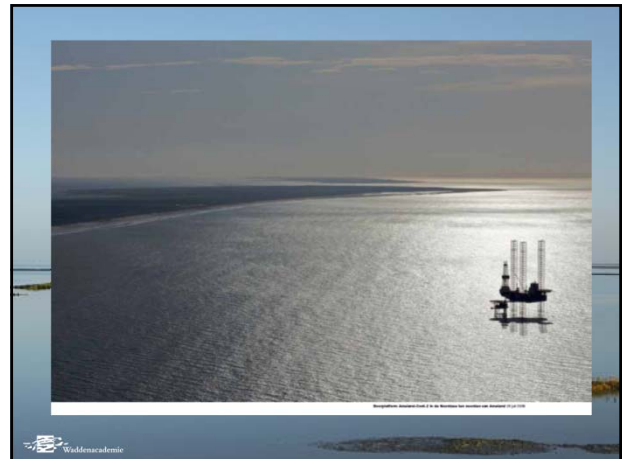
Nordeich – Norderney/Juist



Extraction of natural gas



Waddening Academie logo




Construction of three new powerplants in Eemshaven and more in Germany



Waddening Academie logo

Rural areas: from space for production to space for consumption.

Preserving the landscape versus sustainable energy



Het platteland van alle Nederlanders
Het Medelinders het platteland zien en gebruiken
Sociaal en Cultureel Planbureau

Waddening Academie logo

Global Trend of Green Growth



Waddening Academie logo

Green growth strategy requires integrated research

- it combines **two or more disciplines** with the emphasis on feedbacks and interactions;
- it focuses attention on the **interactions between space and time scales**;
- it focuses attention on the **accumulation of processes**, interventions and effects;
- it is based on the **co-production of knowledge** in which knowledge demands are generated, knowledge is used and generated in close interaction between scientists, practitioners and policymakers (**engaged scholarship**)

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Important research questions (1)

- **Safety:** how can the safety of the Wadden Sea Region and its population be guaranteed in the long-term, also taking into account the possible harmful effects of climate change?
- **Climate-neutral:** how can a sustainable energy balance for the region be realised?
- **Protection:** how can the natural values be safeguarded?
- **Development:** which regional economic developments are possible within the constraints?



Important research questions (2)

- **Adaptation:** how will the natural environment adapt to climate change, the introduction of invasive species, changes in the global economy?
- **Sustainable economy:** how can work and income for the residents be guaranteed in a sustainable manner?
- **Liveable community and quality landscape:** how can social cohesion, a recognisable man-made landscape and living heritage be safeguarded?

→ **New research institute of the Royal Dutch Academy of Sciences: Waddenacademie**
For more information: www.waddenacademie.nl



Waddenacademie promotes integrated multi-disciplinary research in a system approach

Geoscience



Ecology



Society and cultural history



Social and spatial Economics & planning



Climate and water



Spatial-economic science perspective

- Which economic sectors are problematic?
- Where are the opportunities for innovation and sustainability?
- To what extent can tourism and recreation be an economic base? Added value Worldheritage?
- How big is the social-economic value of human co-use of nature?
- Investment selection and evaluation (Cost Benefit Analysis)
- What are the effects of (autonomous) developments like the rise of the sea level and its conjugated measurements for natural assets and the socio-economic and spatial living environment in the Wadden area? Opportunities or threats?



Socio-economic base indicators

- Population + migration by age, sex, household, education, village/neighbourhood, housing, etc
- Labour force by occupation, education, age, residence, commuting distance, etc.
- GDP and employment by sector, firm size, location
- Emission and environmental indicators
- R&D, innovation, sustainability, entrepreneurship, social cohesion
- Income, unemployment and social security benefits by age, occupation, education, sex, residence, etc.



Socio-economic survey information

- Human recreational behavior and the impact on nature use: critical threshold values
- Value of nature assets: use value, non-use value, bequest value, etc. for residents, tourists etc.
- Threshold values for social cohesion and livable communities
- Housing and residential preferences – migration and commuting behavior



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Geoscience 	Ecology 
Society and cultural history 	Social and spatial Economics & planning 
Climate and water 	

For more information see: www.waddenacademie.nl



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