



DCEA

THE DANISH CENTRE FOR
ENVIRONMENTAL ASSESSMENT

WHEN HEALTH IS NEGLECTED IN IA: A VIEW UPON DECISION-MAKING, SOCIAL COMPLEXITY AND DELIBERATION

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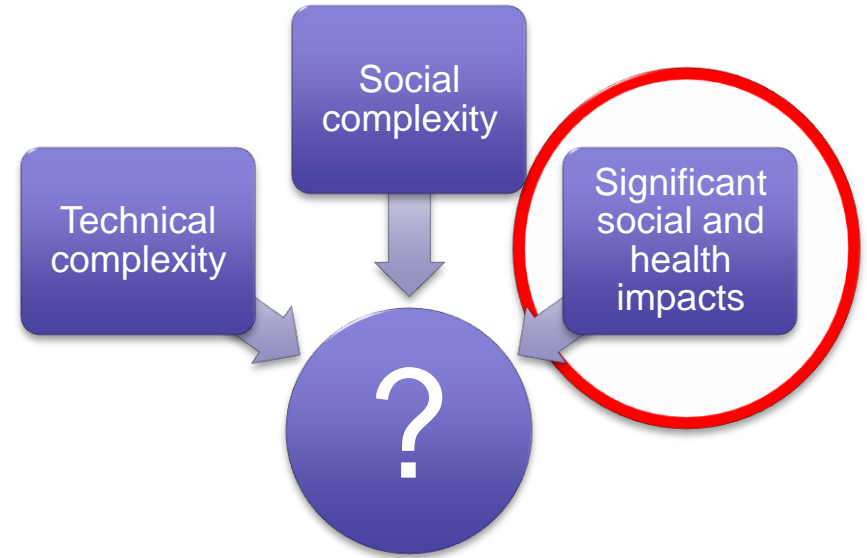
Point of departure

- Research within impact assessment and decision-making
 - The Danish Centre for Environmental Assessment at Aalborg University
 - Critical engagement with external partners/actors
- Focus upon the mandatory assessments (EIA and SEA) as a mean and an arena for comprehensive assessments and public involvement
 - Linking social and physical determinants to human health
- Previous study upon health inclusion in SEA
 - State of practice & exploring/testing models for integration
 - SEA is being used as a catalyst for healthier planning
 - Institutional factors are significant for inclusion of health



Neglection of social and health impacts in a technical and social complex decision-process

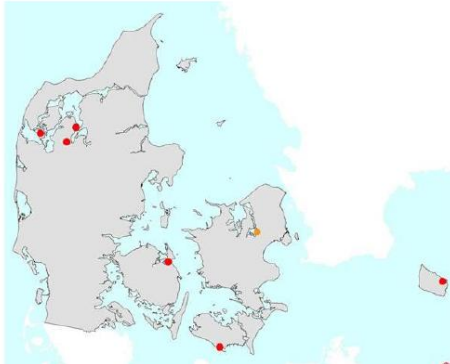
- Potential significant impacts/risks on human health and well-being
- Social complexity
 - Number and diversity of players
 - The greater impact/risk the greater chance players are activated
- Technical complexity
 - No definite problem
 - No definite solution



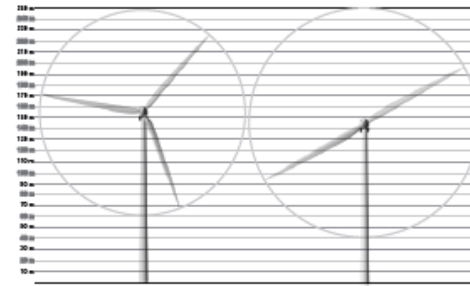
Decision-making process and consequences

– illustrated through two cases

SEA: Location of site for radioactive waste repository in Denmark

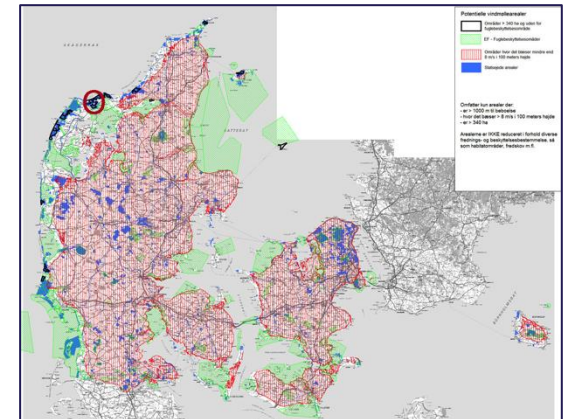


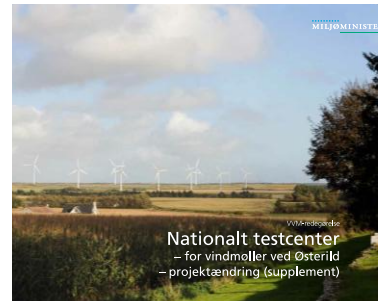
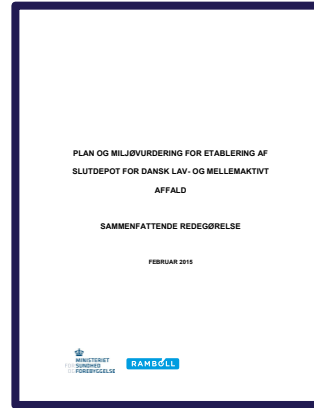
EIA: National test centre for large wind turbines (250 m)



Totalhøjde: 250 m
Navhøjde: 150 m
Rotor diameter: 200 m

Totalhøjde: 250 m
Navhøjde: 140 m
Rotor diameter: 220 m





Screening, scoping,
assessment and
mitigation

'Post' EIA/SEA



Before
EIA/SEA

Approval

Implementation

Time

SEA: Location of site for radioactive waste repository in Denmark

2009 – 2011: Selection of possible sites happened without SEA

- Missed the assessment based upon a broad concept of environment
- Lacked the openness towards the public

Raised significant, critical and competent/organised, public opposition

- Social and health impacts/risks in focus among the citizens – as well as the decision-process itself
- Critical low trust to national authorities (and consultant)
 - If trust decrease – risk perception increase!

2014: Late and narrow SEA

- Lack of proper alternative assessment
- Focus on bio-physical parameters (geology and groundwater)
- Undertaken with limited public involvement
- Social and health assessments in the SEA are characterised by descriptions without real analysis, assessment and mitigation

*“Concerns shows a broad and diffuse risk picture, pointing to **lack of knowledge of the real risks** involved in the realization of the plan and about the steps that have been taken and will be taken to avoid these risks.” (SEA report, 2014)*



The view upon decision-making, social complexity and deliberation



Decision-making process within the ‘command-and-control’ paradigm, e.g.

- SEA initiated after significant decisions have been made
- ‘Lock’ the problem definition and declare possible solution (final repository)
- Specify ‘objective’ parameters for the success of the solution (in which social and health parameters are not determined significant)
- Very limited public deliberation – both before and during the SEA
- No recognition that citizens risk perceptions differ from experts – and needs to be included in the assessments
- Facts and values are separated in the process
- Social complexity overlooked

Results include public opposition, conflict escalation, trust breaking and lack of proper consideration of social and health impacts



EIA: National test centre for large wind turbines (250 m)

2008-2009: National screening of DK

- Selection of one area

2009: EIA of 7 turbines (up to 250 m)

- Raised public opposition
- Strong focus on nature and landscape – which also was reflected in the EIA statement
- Regarding health: attention on noise (and shadow casts)
- Recognition of incorrect calculations of noise
 - 2010: Led to an amended EIA

Post-EIA

- 2012: Aviation obstruction light installed
 - and right after public complaints about intensity
- 2012: Dimming of obstruction light
- 2014: Radar technology ordered
- 2014 – 2017: Monitoring of local impacts and acceptance



The view upon decision-making

Emphasise the implementation phase – post EIA

The differences between projected and actual health impacts

Decision-making reflecting the perceived health impacts by citizens

Now: Research upon how locals feel affected and their coping strategies

Before and after radar-controlled system

Stress assessment is complex and different indicators are needed

Subjectively experienced annoyance

Subjectively changes in well-being

Impacts on behaviour

Compensation/coping mechanism



Summary and perspectives

EIA and SEA provide an important arena for inclusion of social/health impacts in planning

Social and health impacts are assessed and perceived differently between expert and citizens

Neglecting 'proper' assessment and mitigation of health impacts – involving 'command-and-control' decision-making processes with limited deliberation – lead to:

- Higher social complexity
- Trust breaking and conflict escalation
- Delay in time and increased use of resources

In cases of potential significant health impact/risk - Can social complexity be organised as part of the EIA/SEA process?

- Yes – but not following the linear and top-down system approach to decision-making

Cases illustrate the need and value of follow-up studies concerning health impacts and experience with decision making

- Potential for cross-country follow-up studies of:
 - Social and health impacts (documented and perceived)
 - Decision-making processes and organisation of processes, in which health impacts/risks are potentially significant



Thank you

Questions and comments

