

The potential for nature-based solutions

Understanding the possibilities for different actors in historically developed systems

By Keskitalo, E.C.H., Pettersson, M., Rybråten, S., Hoffman, B., & Hendriksen, K.

***Prof. Maria Pettersson
Luleå University of Technology***

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- Funded by Biodiversa+ (BiodivClim) and national funding agencies in Denmark, Norway and Sweden
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- Cross-cutting objectives include analysing the synergies and trade-offs between policies and laws applicable to hunting, fishing and reindeer husbandry and their relation to those on biodiversity, climate and other relevant sectors and contexts at different levels. **Experience with nature-based solutions will be compared, identifying barriers to adaptation.**

Introduction

- This study examines the institutional prerequisites for nature-based solutions in different settings in northern Europe based on the understanding that what may be seen as a relevant solution at one level – for instance nationally or even internationally – may not be seen as a relevant solution at another level – for instance regionally or locally
- Restoration can be an example of this. While restoration of nature areas may in general be a desirable solution, existing practices and rights may limit the extent to which restoration is possible or acceptable locally



Research approach

- Case descriptions from Sweden (forestry), Norway and Greenland (coastal fishing)
- Varying materials and methodologies: Published literature, policy and legal studies, interviews and anthropological observations
- Attempt to add an empirically based discussion of less emphasized areas to the discussions of the NBS concept



Results – forest use in Sweden

- Large-scale forestry dominates forest based land-uses
- Forest management continuously planned in relation to what could be seen as nature-based solutions
 - Plant material developed to different climatic conditions
 - Selection of species e.g., for more mixed stands to better resist infestations and drought
 - No hard edges for the wind to catch during increasing storms
 - Changing management or logging systems to maintain more continuous forest cover



Results – forest use in Sweden

- Large-scale forestry – sets the context for other forest based land-uses
 - Except for formal area protection, e.g. national parks and nature reserves, forestry is legally prioritized in Sweden
- The “nature-based” adaptation and mitigation actions in forestry may however negatively affect reindeer grazing, berry growth and hunting conditions
- The legal system thus provides opportunities for NBS while at the same time limiting the agency of other sectors



Results – coastal fishing in Norway and Greenland

- Norway: complicated and overlapping legal structures with different rights for different groups and areas
 - Limit the regional and local room for maneuvering in fisheries management
- Greenland: Centralised regulations limits the possibility to adapt for local populations
 - To uphold a right to fish commercially a minimum of 33 ton annually must be caught
 - Dinghies must be replaced every four years
 - The sale of teeth from narwhale and walrus, as well as bear skin is prohibited outside of Greenland



Fjords in Norway

Discussion and conclusion – Swedish forestry

- A large part of the traditional forest use in Sweden falls within the scope of NBS
- Reindeer husbandry with its long-standing origins and basis in customs and immemorial prescription is inherently “nature-based”

⇒ Point to a need to see different practices – also nature-based practices – through a variety of conceptualisations, where a focus on specific (novel) conceptualisations may not always be the most relevant



Swedish Alum forest

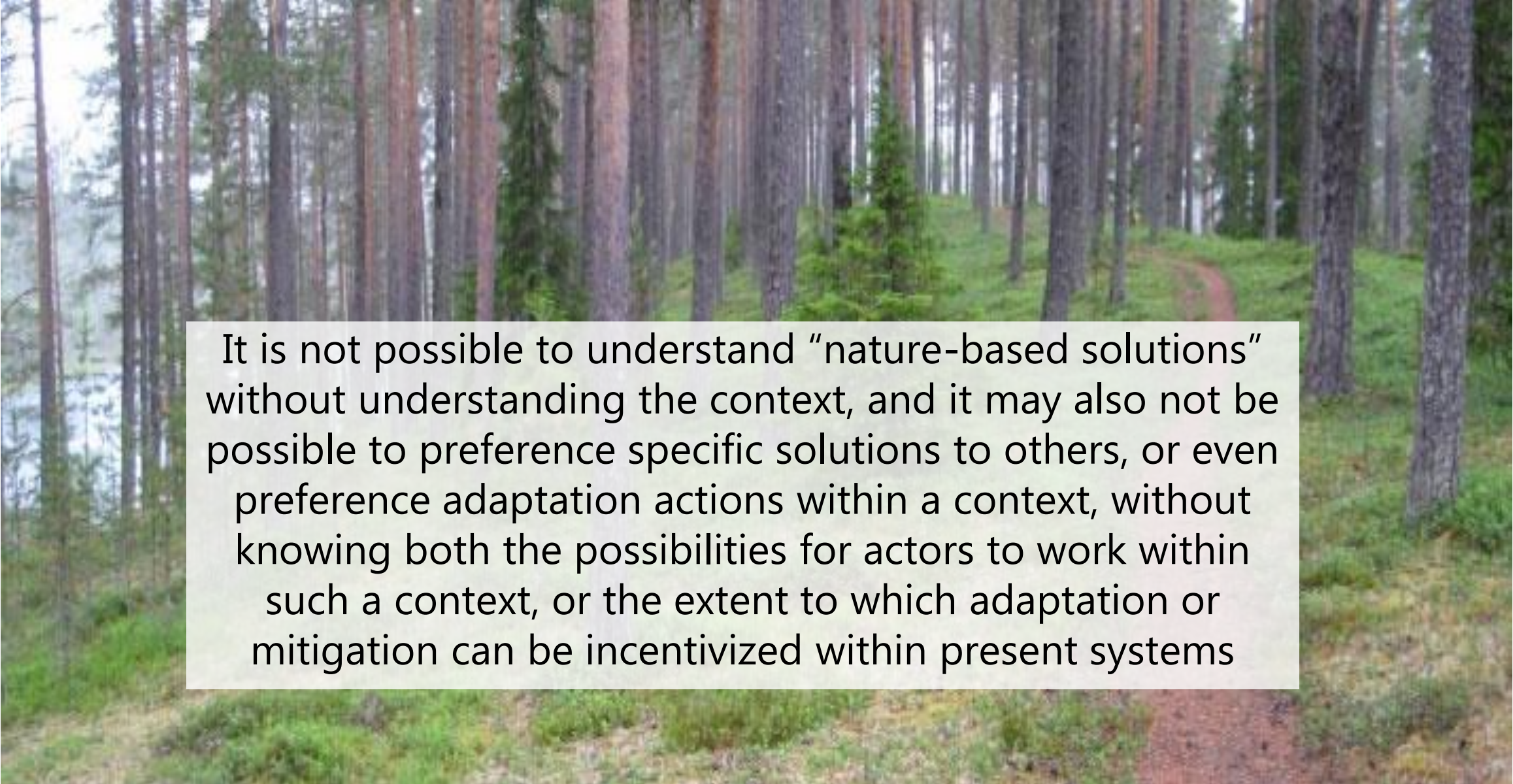
Discussion and conclusion – coastal fishery

- The coping-mechanisms are generally nature-based - the concept of NBS thus does not add much analytical dimension
- Need to focus on understanding the functioning and structure of the sectors, including the role of the institutional framework

⇒ One way could be to relate to the natural resources and the existing local fishery practices in new ways; the existing long line fishery from dinghies or from the sea ice and the storytelling of this form of gentle fishery may add to the value of a lesser volume of catch



Coastal area of Greenland

A photograph of a forest with tall, thin trees and a dirt path. The trees are mostly conifers, and the ground is covered in green moss and small plants. A dirt path winds through the forest. The text is overlaid on a semi-transparent white box in the center of the image.

It is not possible to understand “nature-based solutions” without understanding the context, and it may also not be possible to preference specific solutions to others, or even preference adaptation actions within a context, without knowing both the possibilities for actors to work within such a context, or the extent to which adaptation or mitigation can be incentivized within present systems

Thank you for your attention

