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Complacency or resilience? Perceptions of environmental and social change in Lofoten and Vesterålen in northern Norway



Bjørn P. Kaltenborn ^{a, *}, John D.C. Linnell ^b, Jørn Thomassen ^b, Henrik Lindhjem ^c

- ^a Norwegian Institute for Nature Research, Fakkelgården, Storhove, N-2624 Lillehammer, Norway
- ^b Norwegian Institute for Nature Research, PO Box 5685, Sluppen, 7485 Trondheim, Norway
- ^c Norwegian Institute for Nature Research, Gaustadalléen 21, 0349 Oslo, Norway

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ABSTRACT

Arctic and northern coastal regions are among the least developed in the world in terms of density of settlements, population and resource exploitation. It is often assumed that these regions will be frontiers of future change, conflict and opportunity due to climate change, new transportation routes, geopolitical tensions and increasing demands for their natural resources. But to what degree do global discourses about future challenges in northern coastal areas align with the perceptions and concerns of people living there? Identifying the mainstream public concepts of change can be essential for developing effective and legitimate policies for coastal regions. We surveyed a representative sample of residents in the Lofoten - Vesterålen archipelago in Northern Norway to identify their perceptions of the main conflict issues and drivers of change facing their region. Petroleum exploration, infrastructure development, the fishing industry, and uncertainty about future municipal governance and public services emerged as the key conflict themes. Perceptions of drivers group in positive forces; developments and improvements in transportation, the fishing industry, tourism, new marine industries and cultural heritage protection, as well as negative factors; climate change, aging and declining rural populations, degrading of the cultural landscape due to reduced grazing, and bureaucratic obstacles in the fishing industry. The main attention is on social and economic drivers of change, as well as "doorstep" concerns rather than global discourses. National or global environmental and geopolitical issues are largely absent in the responses.

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1. Introduction

Northern areas and the Arctic in particular are often cast as frontier regions of vast opportunities and challenges (Olsen et al., 2011; Noble et al., 2013). It is a tantalising image — a large region of the world gradually becoming more accessible due to climate change and technology suited to extreme conditions holding promises of valuable natural resources, but also potential for geopolitical conflict and dramatic changes to traditional lifestyles. How representative however, is this image in terms of what coastal northerners are concerned about during their daily life? Perceptions of social, economic and environmental forces of change

among the general public in northern areas have received relatively little attention compared to those of indigenous populations, or other special interest groups which number far fewer people. Mainstream public concepts of drivers of change and conflict are core factors of local politics and indicate where people will direct their attention. This type of knowledge can be critical in the process of designing policies for adapting to climate change and transforming economies of the north.

Contemporary change is evident in environmental and social processes in terms of climate change, intensified extraction of non-renewable and renewable resources, tourism, new transportation routes, developing economies and more emphasis on indigenous land tenure and related issues (Mazo, 2010; Fay and Karlsdóttir, 2011; Arbo et al., 2013; Noble et al., 2013). Governance issues and the particular geography of the north are at the forefront of international controversies, discussions and negotiations about development of this region (Huskey, 2005; Arbo et al., 2013). The strategic importance of this part of the world is formidable (Dodds,

E-mail addresses: bjorn.kaltenborn@nina.no (B.P. Kaltenborn), John.Linnell@nina.no (J.D.C. Linnell), jorn.thomassen@nina.no (J. Thomassen), henrik.lindhjem@nina.no (H. Lindhjem).

^{*} Corresponding author.

2010). Barring drastic changes due to Russian and Chinese foreign politics, there seems to be reasonable agreement among the circumpolar nations that while military and territorial tensions may be on the rise, peaceful cooperation will continue to dominate, at least in the Arctic, given the broad commitment to various international agreements and geopolitical 'realities' (Howard, 2009: Brigham, 2008; Haftendorn, 2011). Most of the documented valuable natural resources are located in largely undisputed lands and coastal zones of the Arctic states. The outer continental shelf is well delineated through UN conventions, and the relevant states have agreed through the Arctic Council to cooperate and resolve disputes peacefully (Arctic Council, 2011a, b). In a survey of predicted future changes in the north, Arbo et al. (2013) distil two main themes. One departs from predicted climate change and reduced sea ice cover and emphasises economic activity and associated social and environmental effects. Here the key drivers are population growth in other parts of the world, globalization, still growing demands for petroleum- and other natural resources, new shipping lanes, new technology and regulatory frameworks. The other theme focuses on governance, politics and security. The key elements here are the end of the cold war, economic and political actors and power struggles, and UN conventions on marine and transboundary issues (Arbo et al., 2013).

These meta-themes interact in complex and different ways throughout the north, but inevitably have some form of natural resource extraction at the core in most cases (Forbes et al., 2004; Haley et al., 2011). Northern communities are often directly and indirectly dependent on natural resources. Transformations in the north are dominantly driven by forces and development outside the region (Solli et al., 2013), but resource policies are shaped in a social-ecological context based on external as well as local regulatory frameworks. A salient question however, is how these drivers of social and natural change are perceived by the affected communities, and which questions appear to be on the local agenda in the particular cases?

The issue of monitoring the state of the northern environment in the context of resource development is paired with the equally important question of how northern communities experience change, livelihoods, quality of life, and satisfaction with public services, as resource development and industries are increasingly globalised and dominated by outsiders. To answer such questions, we need more information on local and vernacular understandings of change and conflicts, social indicators of quality of life, and how public perceptions relate to resource policies (Lowe, 2011; Dannevig and Holvelsrud, 2016).

Social-ecological management issues are inherently complex and require in-depth understanding of local stakeholder perspectives to achieve effective and legitimate solutions (Reed, 2008; Prell et al., 2009). Part of dealing with potential or manifest conflicts in environmental management is to ascertain whether people tend to be unaware of or complacent about problems or challenges, or whether they indicate resilience to changes through lack of expressed concern. Furthermore, mapping public perceptions of drivers of change is important because what we know about environmental challenges is largely associated with science. However, in a time where environmental science is increasingly politicized, 'politics of facts' mixes with politics of interests and values (Pellizzoni, 2011). Effective policies needs to recognize and incorporate this mingling, not the least since different stakeholders represent different levels and types of power. Ignoring this can affect the level of trust achieved in cross-scale networks in natural resource management (Adger et al., 2006).

In this paper, we examine local perceptions of drivers of direct and indirect change and contemporary conflicts in the Lofoten — Vesterålen (LV) region in Northern Norway (Fig. 1). The relationship

between perceived conflicts and drivers of change is important, because origins of conflict usually go beyond material incompatibilities and reflects different cognitive understandings or interpretations of issues (Adams et al., 2003), and hence different ideas about what will be effective policy responses.

1.1. Conflicts and challenges in the north

Conflicts are a characteristic of human-environment dynamics and emerge in a multitude of forms (for summaries e.g. Homer-Dixon and Percival, 1996; Maser and Pollio, 2012; Redpath et al., 2013). There are many definitions of environmentally oriented conflicts, Redpath et al (2013, building on Young, 2009). summarises 'situations that occur when two or more parties with strongly held opinions clash over conservation objectives and when one party is perceived to assert its interests at the expense of another'. Conflicts in natural resource management tend to reflect dichotomies (opposites, adversaries), can be latent or manifest, constructive or destructive, and range from the inter-personal (personal relations, small groups), to social (larger groups, national and sub-national levels, between genders, ideologies, religions etc.) to international and global conflicts (power based, trade wars, armed conflicts, global strife over resource allocation, between socio-political systems) (Bruckmeier, 2005). In this paper, we take an exploratory approach to the concept of conflict, and we are simply interested in the subject areas that local people identify as 'areas of conflict', without going into interpretations of actors, relationships, value disagreements, or resources at stake. Rather, the focus is on the areas of public concern and to what extent these are seen as linked to perceived drivers of change.

The Barents Sea and Northern Norway along with Northern Russia has been termed the last great petroleum frontier with large potential reservoirs offshore (Gautier et al., 2009). Although exploration and exploitation are underway in the Barent's Sea, active exploration and extraction are still on hold in LV due to political disagreements and currently low oil and gas prices. Given that the LV area is a world-class tourism destination as well as the spawning ground of the North Atlantic cod fisheries, both potentially vulnerable to impacts from petroleum exploration, deciding on resource policies and achieving political consensus on development paths is extremely challenging. The entire LV region has been proposed as a World Heritage Site (Sande, 2015), but the application process is currently stalled by local disagreements among the municipalities. Along with the potential closing down of large military bases, the foremost contemporary debate in the region seems to be the pros and cons of opening the region for petroleum exploration. The debate revolves around the question of whether this is compatible with traditional industries like fisheries and tourism, as well as less tangible issues like local identity and traditional ways of life (Kristoffersen and Young, 2010; Buck and Kristoffersen, 2011; Jensen, 2012; Misund and Olsen, 2013; Kristoffersen and Dale, 2014).

An ecosystem based management plan developed in 2002–2006 (Miljøverndepartementet, 2006) provides a tentative regulatory framework with time-limited exploration closures on parts of the offshore areas. This is the first integrated Norwegian management plan for a marine area (Ottersen et al., 2011; Hoel and Olsen, 2012). The plan is currently under revision (Miljødirektoratet, 2016). Political negotiations have also resulted in a decision not to carry out scoping or full environmental impact assessments (EIAs) of future drilling, since the potential drilling sites are given temporary protection. However, several projects have been carried out to improve the knowledge platform for future decisions on development paths, but circumventing the formal EIA route. Examples are projects examining the direct and

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