

Reflections

To relocate, or not? The future of small and remote communities in the Nordic Countries facing natural hazards

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Remote communities are often particularly vulnerable to the effects of climate change in the form of increased risk of hazards such as avalanches, storms, flooding, or landslides. This is due to, for example, nature-dependent livelihoods, large distances from emergency services as well as limited resources and expertise for climate adaptation work. Still, most remote communities are dependent on support from wider society if they are to successfully address the increased challenges that a changing climate entails.

This commentary aims to spark a discussion on the controversial issue of relocation of remote communities living in high-risk areas. In the Nordic context, relocation is often avoided (and not discussed) due to many valid reasons, such as the right of each citizen to get state services regardless of where they live, the value of having dispersed settlements, and strong place attachment of remote communities. Nonetheless, we argue that researchers, policymakers and broader society should discuss if living in high-risk areas is still reasonable in the light of climate change? While raising this question often leads to a simplified debate about forced relocation, we aim to contribute to a more nuanced debate. Maybe relocation might indeed be a more resilient and sustainable long-term solution for (some) remote communities.

Keywords: relocation, mobility, climate change, climate change adaptation, natural hazards, remote communities

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Introduction

In December 2023 and January 2024, the international news spotlight was on the small town of Grindavík in Iceland, which had to be evacuated due to volcanic eruptions. In Spring 2024, it is still unclear whether the people will be able to move back to their homes. However, even if they will be allowed back, there will always be the risk of future volcanic activity. Such natural hazards are challenges for local communities but also for society at large. Community members might experience loss of property or even life. In Grindavík, one person lost his life and if people move back, they have to face the fear and uncertainty of living in a risk area. For society as a whole, there are large economic costs connected to mitigating the risk, providing help when the disaster strikes and rebuilding homes and infrastructure after. During the Grindavik eruption, Iceland used considerable public resources to evacuate people and to reduce the impacts by building barriers to deflect the lava away from the houses. After the eruption, the cost of rebuilding or possible relocation, will to a large extent be covered by the state.

This example from Grindavík demonstrates some of the challenges that small remote communities who live under the threat of hazards face. In the case of Grindavík, the hazard cannot be connected to climate change, but due to climate change many types of natural hazards, such as flooding, landslides, avalanches, or storms, will happen more frequently and/or intensify (Miljødirektoratet 2023, DMI 2024). Thus, Grindavik illustrates the type of challenges many more communities will face in the future.

Small remote communities are particularly vulnerable to climate change-related hazards due to a lack of resources and expertise for prevention, preparedness, and recovery. Furthermore, they are dependent on outside support both in acute emergency situations and for the funding of preventive measures such as avalanche barriers or dikes. Both from a risk and a cost perspective, the relocation of small remote communities in high-risk areas could be a sensible option for wider society. For the citizens living in these communities, however, relocation is often unthinkable due to a strong place attachment. In the Nordic countries, the right of citizens to live everywhere in the countries, also in very remote settlements, has a strong tradition. It is further possible to draw this argument all the way up to the highest ethical level where the UN's Universal Declaration of Human Rights states that "Everyone has the right to freedom of movement and residence within the borders of each state" (UN General Assembly 1948).

While relocation in the Nordic countries recently has got more attention within academic discussions (e.g. Matti *et al.* 2023), it is rarely addressed in public and policy debate. With this commentary, we aim to spark a discussion about the relocation of people living in small remote communities in areas with high risk for hazards considering both the perspectives of the communities and of wider society. We do that by drawing on research from the CliCNord¹ project, which focused on how to increase the resilience of small communities to better withstand the consequences of climate change. Through eight case studies in five different Nordic countries, the project aimed to gain in-depth insight into what kept people living in high-risk areas and what connects them to these places. Place attachment, in the form of social, physical, emotional, or functional elements, was strong in all the studied communities (Kongsager *et al.* 2024). People expressed that moving away would be undesirable – for many even unthinkable. Even though our starting point has been to look at citizen perspectives on the climate change-related risks, the research has kept pushing a new question to the front: Is living in areas with increased risk for property, infrastructure, and even life reasonable and sensible? We are aware that this question may generate conflicting perspectives and deep feelings, and may be difficult to discuss, not least in the context of Nordic welfare states. Furthermore, raising this question often leads to a very simplified debate about forced relocation. This commentary, instead, aims to contribute and invite to a more nuanced discussion about the issue of relocation.

The dilemmas

All eight communities that were studied in the CliCNord project had one thing in common, besides facing a climate-related hazard. They all needed assistance from the surrounding society to cope with the hazards, both to fund protective measures, respond when the hazard occurs and rebuild after.

The small communities did not have the resources to, for example, finance avalanche barriers or dikes and the local emergency management would need assistance from regional or national emergency management organisations to respond to a hazard, such as a mudslide, avalanche or storm surge. While all communities received some kind of outside support to cope with the hazard, they were also asking for and in need of more and better support in order to keep the risk at an acceptable level. Thus, the issue of whether small, remote communities vulnerable to climate change-related hazards can remain in their locations is not just a local concern. It also demands attention from broader society, including the municipalities these communities belong to, the national government that usually funds a large share of disaster risk management activities, and the taxpayers who financially support these areas.

Several arguments are often brought up against relocation. The first argument is related to equality, in the sense that all citizens should have the same access to state support and the same right to protection against hazards. This argument is strong in the Nordic countries with a long welfare state tradition. Another aspect is the importance attributed to maintaining a dispersed population, ensuring that not all settlement is concentrated in urban centres. Finally, the CliCNord research indicates that remote communities often have strong place attachment. Relocation would come with heavy personal losses, both material and immaterial, and can lead to tremendous negative consequences both for individuals, communities and whole societies.

The most common argument for relocating high-risk communities in a Nordic context builds on a cost-benefit perspective, emphasizing that costs for risk reduction through protective measures in small remote communities are larger per capita than in more densely populated areas (Danish Coastal Authority 2016). This is also valid for other societal services, such as infrastructure, education and health (Schultz 2023). We even see examples of declining welfare services in rural areas, with economic costs as main line of argument (Rosenkilde 2023). Another rarely-discussed dimension is the environmental and climate impact of remote settlements, which often occupy more space and create transport needs, thus contributing to higher emissions and impact on biodiversity per inhabitant than urban areas (Nalau & Handmer 2018, Fernando *et al.* 2021).

All these arguments for and against relocation are valid and important. However, we also want to draw attention to the historical dimension. What we consider as small remote communities today, exist for historical reasons, which in most cases relate to livelihood and infrastructure. For example, water used to be the main means of transportation as well as the main source of income in large parts of the Nordic countries; it was easier to transport goods and people over the sea than over land. Therefore, many small communities are placed in locations which we today would consider somewhat remote and inaccessible, for example, along the coast, on small islands or within fjords, due to these locations' proximity to fishing grounds, farmland or grassing areas or because they were central locations for trade (Brox 1966, Gjerdåker 1981). Some of these remote communities today face depopulation due to, for example, changing livelihoods, depleting resources or centralization of industries (Sørensen 2014). The herring era in Siglufjörður, Iceland, making the town boom from the 1920s and depleted when the herring was overexploited in the 1960s, illustrates this (Hamilton *et al.* 2006). Population decline as a growing challenge in many remote areas in the Nordic countries, is the topic of a recent special issue in *Fennia* (Albrecht *et al.* 2023). This special issue draws attention to the need to actively include this demographic development in planning and policies. Today it is to a large extent an issue that neither planners nor politicians want to confront, with the result that also the positive possibilities are not utilized. For example the possibility of reducing the number of people living in risk areas.

Many of the communities studied in CliCNord are not only at risk because of climate change-related hazards, but also face population decline. On the one hand, these places receive support from the welfare state, enabling their continued survival and thriving. On the other hand, many inhabitants struggle to maintain jobs and education when living in such remote places. Moving an entire community was not uncommon in earlier times (Armstrong 2020). Now it seems impossible in most cases. Still, the communities we studied are aware of the population decrease. Fighting against demographic decline and socio-economic challenges might be successful in some places, however, some communities might have dropped below a critical mass where it is not possible to uphold basic

welfare state services and voluntary activities, such as education, health or emergency management locally (Vorre 2017). When discussing the economic resources that the broader society should invest in the protection of small remote communities, the ongoing population decrease is relevant. We are discussing how to protect the communities as they look today, but will those communities exist in the future? This may not only depend on the protective measures, but also on the overall development in the respective places.

Another question can be raised in relation to climate change. With an even longer historical perspective, societies have changed and communities moved as a response to a changing climate (Klimenko 2016). An argument for protecting small remote communities against hazards is to prevent them from physically changing and thereby making it possible for people in these communities to maintain their everyday lives. However, for many communities in risk areas, climate change means unavoidable changes for both nature and everyday life. The small Danish islands will decrease in size as the water level raises, and farmland will turn into wetland. Landslides and avalanches will transform the landscapes, and homes and infrastructures have to be adjusted. With this in mind, we argue that we should question the approach of protecting communities based on their situation today, as they are already transforming because of both migration patterns and climate change.

To summarise, there are many good reasons for broader society to support living in small remote communities, but there are also dilemmas. Those are not only related to economy, but also to the present development of those communities both in relation to social and natural changes. In this relation, climate change will become a game changer, as many more small remote communities will face an increased risk from natural hazards.

Way forward

The aim of this commentary is not to provide solutions to those dilemmas. Instead, we hope to contribute to the relocation debate by bringing forward some of the many nuances that sometimes drown in the present debate. We also hope to spur a discussion and bring attention to the need for further research on the issue. We want to end this commentary by highlighting some central reflections we see as important for moving the relocation discussions forward.

Above we emphasized that people's place attachment can be a strong argument against relocation. However, studies of place attachment show that attachment is connected to more than just the physical place. It is also connected to functional and social aspects (Raymond *et al.* 2010). People relocating due to evolving livelihood opportunities exemplify how the functional and physical aspects of place attachment sometimes can conflict. This might open up for discussing the possibilities of relocation processes which preserve central aspects of people's place attachment. Examples of this exist: Increased avalanche risk in the northwestern part of Iceland lead to moving the village of Súðavík two kilometres down the road to a safer location (Jóhannesson & Arnalds 2000). People had to give up their houses, but social networks, livelihoods and closeness to specific nature moved along. This type of solution, of course, poses questions of who should pay for new building grounds and reconstruction of infrastructure and houses. In many areas, it might also be difficult or impossible to find a place 'up the road' that is safe enough and available to relocate to. However, we see numerous examples in the Nordic countries today where economic resources are used to rebuild after a natural hazard in the same risk area (Baron 2020, Kokorsch & Gísladóttir 2023). Several examples also exist of areas suffering from a second hazard only a few years after being rebuilt. In those cases, the relocation of whole communities might be worth discussing. Related to this are the many small communities where peoples' place attachment already is under pressure from depopulation, loss of industries, or climate change and for whom a discussion of a planned long-term retreat and deconstruction of the community might also be relevant. Fairbourne, a small town in northern Wales, is an example of a community where the local government has decided to decommission the town and relocate its citizens as a result of the increased flood risk, starting from approximately 2045, thus giving time for long-term planning and citizen involvement processes. This demonstrates some of the nuances which could be included when discussing relocation.

Discussing relocation brings many feelings and controversies forward, not least as a result of the grave consequences of the policies of forced relocation of the indigenous Sami population that were dominating in several of the Nordic countries throughout the 20th century (Lantto 2014). However, the increased risk that many places experience as a result of climate change makes it an unavoidable topic. On a global level, a still growing number of people are forced to migrate as a result of climate change. How to respond to the increased number of climate refugees is a topic that demands attention on all political levels. In EU we are in a privileged position because of our relative wealth, and as discussed in a recent editorial in *Fennia* (Kallio & Riding 2023), therefore have a responsibility to take a larger responsibility concerning the many people who are forced to relocate as a result of climate change. In addition, we will with this commentary argue, that we further have a responsibility to start discussing relocation as a climate adaptation approach on our own territory as well.

With this commentary, we therefore propose to broaden the discussion beyond for/against relocation and bring to light its many nuances. We especially want to highlight the need to approach the issue with a long-term perspective that makes it possible to engage local citizens and governments in participative processes around living in high-risk areas – processes that might lead to planned relocation or building down of remote communities, or not (UNHCR 2014).

Notes

¹ www.clicnord.org

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