

Navigating Challenges: Sámi Youth, Land Use Changes, and Cultural Well-Being

Anu Soikkeli^{1*}, Ketil Lenert Hansen²

¹ Oulu School of Architecture, University of Oulu, Finland

² Regional Centre for Child, Youth Mental Health and Child Welfare North (RKBU Nord), UiT, The Arctic University of Norway, Tromsø, Norway

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Abstract

The paper, with a multidisciplinary approach, examines the relationship between land use and nature and the well-being of Sámi youth. We study how the United Nation's Sustainable Development Goals (SDGs) pay attention to the circumstances in the global north and bring up examples of typical land use conflicts in the Sámi region in Finland, Sweden, and Norway. This article draws from a diverse range of literature documents and research articles, including the Sámi youth interviews and semi-structural interviews conducted in 2019 during project Mihá. These interviews provide a human perspective and valuable insights into the experiences and perceptions of the Sámi youth, enriching our understanding of the impact of land use and nature on their well-being. Resource-based industries pose a significant threat to the livelihoods in Northern Scandinavia and have a profound impact on the lives of the Sámi youth. These industries have severe negative implications for mental and physical health, including the loss of language and culture, change in living environment, and loss of the local lifestyle. This raises serious concerns about the well-being of the Sámi youth and the social sustainability of their communities.

Introduction

Climate change is an intensely experienced reality in the Arctic, requiring urgent adaptation. However, anthropogenic activities, including the sustainable energy industry, such as wind farms, mining, and logging, might have even more significant local impacts. The Arctic, which has long provided important natural resources, is now the target of many governments' strong promotion of energy and resource extraction projects. In Northern Europe, also wind power is presented as a sustainable solution. Governments in Finland, Sweden, and Norway, lower taxes, offer subsidies, and loosen regulations to advance renewable energy production. The transition to renewable energy requires significant amounts of metals, such as lithium and cobalt – critical metals in batteries. Significant investments are made in the mining industry, and existing mines are expanding their operations. Mining

claims and energy production have significant national and global value, but they also might have negative local impacts. Prolonged and problematic planning processes, including industrial and logistical projects, are typical in Northern Europe [1]. The planned new land uses can make it challenging to practice traditional livelihoods, especially reindeer husbandry.

The Sámi are the only officially recognized Indigenous people in the EU. The self-governing country Greenland is not a member of the EU, although all citizens of Denmark residing in Greenland (Greenlandic nationals) are EU citizens. Inuit – the Indigenous peoples of Greenland – make up most of the Greenlandic population. They are recognized to have their own culture, languages, and livelihoods, such as semi-nomadic reindeer husbandry, hunting, fishing, trapping and farming, and political institutions. However, they have a history of colonization with forced assimilation, boarding schools, racism, and discrimination [2]. The definition of

* Corresponding author. E-mail address: anu.soikkeli@oulu.fi

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who is a Sámi in the Nordic Countries is defined in the Act on the national Sámi Parliaments (Norway, Sweden, and Finland) and is based mainly on self-identification and primary usage of the Sámi language as an ethnicity marker. According to the calculation method, 60 000–100 000 Sámi people live in the Sámi area (Sápmi) (Fig. 1). The Sápmi is the homeland of some 2 million people. Still, the residential area of the Sámi people is much larger than this – both from a historical perspective and through today’s demographic changes. The decrease has occurred primarily in rural areas and small settlements. Ethnic mobility has also had an impact on where we find Sámi today. Many Sámi have left their homelands to find work in the cities further south. For example, 60 % of Sámi people live outside the Sámi area in Finland [3]. Also, in Norway, there has been a large migration of Sámi from the north to the south [4]. So, Sámi people are becoming increasingly urbanized, especially among Sámi youth, both inside and outside Sápmi, and new questions arise regarding Sámi future in the cities [5].

The well-being of Sámi youth is a pressing concern that demands immediate attention, particularly in the context of evolving land use practices. A study on Sámi youth found that 64 % of participants view these environmental interventions as a threat [6]. Climate change and its mitigation present substantial mental health challenges for Sámi reindeer herders. These challenges include stress from disruptions to their culture and livelihoods, increased workloads due to unpredictable weather patterns, and psychological impacts from hate speech and harassment related to land competition and the transition to renewable energy [7]. This article delves into the profound impact that changes in land use have on the younger generation of the Sámi, setting the stage for a broader discussion on the socio-cultural and economic implications of these transformations.

Growing pressures from industrial projects like wind farms, mining, and hydro development associated

with climate change mitigation, however, also lead to mental health challenges among herders, such as stress, depression, and anxiety, as they face the uncertainty of preserving their traditional knowledge, skills, and practices in the face of rapid change [8]. These changes disrupt the delicate balance between the Sámi and their environment, which is central to their identity and way of life [9]. For Sámi youth, who are at a critical juncture of cultural transmission and personal development, the repercussions are particularly acute. The loss of traditional lands not only affects their physical environment but also their mental and emotional well-being, as it challenges their connection to their heritage, culture, and livelihoods [10].

While climate change is a significant driver of land use changes, this paper prioritizes the immediate effects of these changes on Sámi youth, exploring how their unique position within the community makes them especially vulnerable. It is crucial to understand why the focus is on youth: they represent the future of the Sámi culture and are pivotal in navigating the intersection of tradition and modernity. Although the broader Sámi population is undoubtedly affected by these issues, the youth face distinct challenges that warrant specific attention. By highlighting the experiences and perspectives of Sámi youth, this article aims to shed light on the broader implications of land use changes and advocate for policies that safeguard their well-being and cultural continuity.

The paper explores the relationship between land use, nature, and the well-being of Sámi youth, examining how sustainable development goals intersect with these issues. It highlights typical land use conflicts in northern Finland, Sweden, and Norway, where national goals often clash with Sámi interests. The paper also discusses how traditional livelihoods and nature contribute to Sámi youth well-being and cultural preservation, drawing on literature, research articles, and interviews conducted with Sámi youth, including those from the Mihá project in 2019 [6].



Fig. 1. Sápmi (Sámi area) spans central Norway, Sweden, Northern Finland, and the Kola Peninsula [cc 3.0].

I. Land Use, Sámi and SDGs

Studying and understanding the well-being of the Young Sámi people and its connection to land use in the frame of the Sustainable Development Goals (SDGs) might help to understand the need to balance the competing land claims. The SDGs are related to the topic in several ways, to mention some. *Wellbeing and Health* (SDG 3): Ensuring healthy lives and promoting well-being for all ages is crucial, and for Sami people, maintaining cultural practices that contribute to their overall well-being is also crucial. The built environment plays a significant role in improving health outcomes and enhancing the quality of life [11]. *Quality Education* (SDG 4): Access to quality education that respects and incorporates Sámi languages and traditions helps preserve their cultural heritage. This includes the

possibility of learning from elders in daily living and traditional livelihood. [12] *Decent Work and Economic Growth* (SDG 8): Sustainable economic opportunities that respect Sámi traditions, such as reindeer herding, are vital. Land-use planning plays an essential role as an enabler [13]. *Reduced Inequalities* (SDG 10): Addressing inequalities, including lack of representation in decision processes, is necessary for inclusion [12]. Architects can advocate for policies and regulations that prioritize indigenous peoples' needs. *Life on Land* (SDG 15): The Sámi have traditional knowledge and practices that promote biodiversity and environmental sustainability. However, competing claims on land for industrial or agricultural use can threaten these practices [13]. *Peace, Justice, and Strong Institutions* (SDG 16): Ensuring that Sámi people have a voice in decision-making processes that affect their lands and lives is essential. This includes recognizing their rights and integrating their perspectives into policies and planning processes so architects and planners have a role in promoting justice and equality in communities.

Land use in the Arctic and its population's well-being is embedded in SDG 15, *Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and biodiversity loss*. Meeting the goals of reduction of greenhouse gas emissions – one of the critical points for wind power and mining in the Arctic – interlinks also to SDG 7, *Ensure access to affordable, reliable, sustainable and modern energy for all*, and SDG 13, *Climate action: Take urgent action to combat climate change and its impacts*. Although the targets do not make direct reference to Indigenous peoples, land use plays a vital role in eradicating poverty and reducing inequality [14].

Our paper focuses on SDG 11, *Sustainable Cities and Communities*, because this goal is usually emphasized when discussing architecture. Architects are accountable for providing an affordable and healthy built environment to minimize buildings' carbon footprint and promote renewable energy sources. The goal's theme is also strongly related to land use and planning, for example, the placement of wind turbines or mines. SDG 11 is also the most adapted for implementing the SDGs in architectural practices [15].

Urban sustainability has been critical to the Global Agenda for Sustainable Development. SDG 11 presents a separate urban goal and recognizes the crucial role of cities and settlements in advancing progress toward global sustainable development [16], [17]. The goal combines social inclusion and environmental sustainability with a balanced and integrated approach to monitoring sustainable urban development [18]. The focus is on urbanism and urban sprawling. However, this urban growth is not uniformly distributed globally [19].

Goal 11 does not fit the development of the Arctic region, where the urban areas, in general, are pretty small, and the urban sprawl is not a challenge compared to the

global South. All Arctic states are high-income countries except Russia, which is an upper-middle-income. The Arctic regions differ considerably in population size, growth rates, and the structure of settlements. Still, there is also a general trend toward the concentration of populations into larger urban centres and a decline in smaller settlements. All Arctic states have made the demographic transition from high birth and death rates to lower birth and death rates. Some regions have experienced significant population growth over recent decades. The population has grown in northern Norway, and there has been moderate growth in the Swedish and Finnish Arctic regions despite a decline in some of them. The population of the Russian Arctic is declining [20]–[24].

Most sustainable development indicators include a link to cities and urban areas, and about a third of sustainable development indicators are measured at the local level [16]. Indicators 11.1, Safe and affordable housing; 11.2, Affordable and sustainable transport systems; 11.4, Protect the world's cultural and natural heritage; 11.6, Reduce the adverse effects of natural disasters; 11.8, Strong national and regional development planning; and 11.9, Implement policies for inclusion, resource efficiency, and disaster risk reduction, can also be considered linked to small settlements.

II. Land Use and Well-being in the Arctic

According to Jokinen, Sarkki and Heikkinen (2016), well-being can be defined broadly as consisting of the material basis for a good life, social relations, self-determination, possibilities for action, health, safety, a sense of being respected, and living in harmony with nature [25], [26]. Local well-being can be considered a joint outcome of external influences and local practices and actions. There is also a strong connection between the decision-making processes and local well-being in an area where local actors have a strong sense of attachment to a place, as is the case in the Arctic in many local and Indigenous communities [1], [27]. Specific differences have been observed when comparing the well-being experienced by members of the Indigenous population to the mainstream population. Practicing traditional livelihoods and connecting with nature is important for Indigenous communities. In addition to their economic significance, they maintain culture and community belonging [28], [29]. Enabling traditional livelihoods and preserving the connection with nature are keystones for well-being, and they are strongly related to the challenges of land use.

Land-use conflicts are defined as interactions between groups of people interested in how land is used; they occur when there are conflicting views on land-use policies [1], [30]. Localized environmental decision-making is strongly connected to issues and actors at various governance levels, from the local to the global, and is embedded with power

relations. A prolonged conflict over land use negatively impacts the well-being of the local community. National-level decisions impact local well-being. The uncertainty over Indigenous land rights is formally recognized as decreasing predictability in the future, making planning for the future uncertain and decreasing the prerequisites for well-being [25].

The Arctic has received increasing attention due to the rush to excavate newly discovered mineral resources. Local land struggles related to the expansion of the extractive industry are expected. The fragile environment and the presence of nature-based livelihoods and Indigenous communities pose challenges. Many Indigenous peoples, as well as other local communities, experience a threat to the continuation of their cultures, traditions, and livelihoods when large-scale extraction enters their territories, which also threatens health and well-being in the Arctic. For example, according to reindeer herders in Northern Europe, the primary cause of the imbalance in their lives is that Indigenous knowledge is not included in informational resources for decision-making by governing structures, and their voice is not heard. The research emphasizes the need for locals to have a role in decision-making processes [1], [31], [32].

The Sámi have emphasized that mobility with reindeer herds is a critical factor for well-being (Fig. 2), including physical and mental health. It has also been found that the disintegration of Indigenous communities and the transition to a new way of life in cities has increased the risk of psychological instability, reduced immunity, and raised the number of people with cardiovascular diseases and diabetes [31], [33]. Undisputed evidence shows that reindeer herding and harvesting of wildlife resources takes considerable physical exertion, contributing to individuals' physical and mental well-being. A lifestyle change can lead to obesity, which also affects the reproductive health of the population. The transformation from traditional



Fig. 2. Reindeer separating in autumn time, Inari Finland (source: Craft Museum of Finland, www.skm.finna.fi).

livelihoods to a sedentary way of life may also lead to psychosomatic disorders. The interruption of subsistence activities has severe impacts, especially on young men and their self-esteem, and exacerbates drinking and drug use [31], [34], [35]. Also, as part of land use, food and water safety and food security are essential to local well-being and health.

III. Sámi Land Use and Land Use Conflicts

In the Nordic countries, land use planning is guided by national land use goals. At the national level, the aim is also to develop the regions equally; for example, roads, rail networks, ports, and power lines are planned. The starting point of the land use planning system is detailed planning, where national land use goals and general plans, i.e., the provincial plan and the general plan, guide the planning of detailed site plans. General plans and site plans are drawn up and approved by the municipalities. The principle is that the planned area becomes smaller as the planning becomes more detailed. The general guidance of land use planning is based on the Land Use and Building Act.

The legal status of Indigenous peoples – such as ownership rights or the right to use and inhabit the land – in relation to their cultural landscape has undergone many changes, e.g., in terms of geopolitics, natural resources, tourism, and biodiversity protection. Long distances and sparse settlements are typical for the Arctic in many regions. The Northern landscape often appears to an outsider as a wilderness with no traces of human culture, even if the area has been inhabited for thousands of years. Therefore, the Arctic is seen as a place easily used by wind farms or mining operations, not as a home and base of life for many local communities [1]. The basis of the environment created by the Indigenous cultures is in the adaptation to the natural cycle of the year. The landscape also strongly contributes to memories, stories, and local customs. Its values are often less tangible than visible human traces in the landscape. The livelihood – whether it is reindeer herding, fishing, hunting, gathering, or even tourism or a combination of all this and more – is the core of local culture, and land use could have a role in supporting, maintaining, and strengthening the culture.

A. Mining

Mineral extraction and the search for metals such as copper, cobalt, lithium, and nickel have increased considerably, pushing the extraction frontiers into Northern territories, and extraction is increasingly expanding with new project proposals. Many of these mining plans conflict with local livelihoods and interests, raising solid questions of environmental justice and who experiences the benefits and disadvantages. The conflicting narratives in projects

are revealed in research, e.g., in [36], and through media. The process often conflicts with local values, resource uses, and Indigenous rights, and the burden of costs is expected to be carried by local livelihoods, including tourism and recreational activities.

The scholarly literature contains some studies of the impacts of mining in the Arctic on Indigenous groups [37]. Larsen et al. (2022) empirically analyse mining impacts on Sámi reindeer herding in Sweden. Their findings show that two case mines have caused similar effects on the land and the reindeer, the economy, and also on Sámi culture, health, and wellbeing. It is strongly argued that if the governments considered the full scale of impacts, mining governance would entail a fundamental paradigm shift [38]. However, in Northern Norway, a mining company is pursuing a copper mine in the county of Finnmark. If approved, the mine would annually dump mine waste into the Repparfjord – classified as a National Salmon Fjord – and seriously disrupt the reindeer herding of the Indigenous Sámi people. Coastal fishermen are concerned the project will smother habitats critical to marine life. Many Sámi fear the mine would destroy the reindeer grazing area. The consultation process is government-led, and according to the former Norway's Minister of Trade and Industry, Torbjørn Røe Isaksen, the dumping of tailings into the Repparfjord will not be problematic in such a way that mining shouldn't be allowed. It is also emphasized that the "mine is needed for the green shift" [39].

B. Wind farms

Wind farms might pose problems for local reindeer herders. The placement of windmills can disrupt migration routes, or the turbines can render grazing areas unusable. Renewable energy projects in the Arctic can be a source of problems instead of a green solution. The Sámi people of Norway and Finland are fighting against windmill parks planned for their homeland. A maximum of 267 wind turbines would come to the Rastigaisa mountain area, which rises from the Teno Valley and would also be visible far into the Finnish side. The background force of the project is the Finnish fuel company St1. Many municipalities in the area oppose the project planned for the wilderness. One of the company's reasons for choosing the location is that "there is little population and thus the damage to the environment is minimized." Despite the negative statement of the Sámi Parliament representing the Indigenous peoples of both countries, several Sámi organizations, municipalities, and nature conservation organizations, the company denies that there is widespread opposition to the wind power project [40].

The decision of the Norwegian Supreme Court at the end of 2019 is considered a significant victory for the Sámi people. The Court stripped two wind farms of their operating licenses in a case brought by Indigenous reindeer herders [41]. The decision is also exceptional

and significant because the wind farms' construction in Fosen was completed the previous year. It was stated that the wind farms were harming the reindeer herding industry and thus violating the Sámi people's rights to their cultural practice. The Supreme Court declared the license issued by the ministry to build and operate the turbines void, saying they violated the international covenant on civil and political rights. Article 27 of the UN treaty states that minority ethnic people "shall not be denied the right, in community with the other members of their group, to enjoy their own culture, to profess and practice their own religion, or to use their own language" [42].

C. Infrastructure

A Finnish Transport Agency study on an Arctic rail line connecting Finland with the Arctic Ocean (from Rovaniemi to Norway's Kirkenes) was done in 2017–2018. It would promote the country's supply security and provide an alternative route to the Baltic Sea. The Sámi Parliament was heard quite late in the process, and there was an intense fear that the project would cause problems for the area's reindeer herders and Skolt Sámi population. The Sámi Parliament stated: "Preservation of reindeer husbandry, traditional land use, and *traditional Sámi land* is the foundation for the survival of the Sámi language and culture" [43]. In May 2019, a Finnish company signed a letter of intent with a Norwegian development company on the design and implementation of the Arctic rail [44]. In the ongoing regional planning project aimed at updating the Regional Plan, the rail was included in planning. It was still in the plan proposal in March 2021 with the Regional Board's support. Sámi organizations and political bodies are resisting projects promoting the Arctic Ocean because they are believed to threaten traditional livelihoods. Unexpectedly, in April 2021, the Regional Council of Lapland did not approve the Regional Plan proposal but returned it for replanning without the Arctic railway. From the point of view of the locals, there is still no guarantee that the idea of Arctic rail will not come up again. This brings uncertainty to other ongoing land-use plans [45]. Also, a conceptual design study for the Northern Norway Line is conducted in Norway. A report is due in 2023. The National Husbandry Association (NRL) is a strong opponent of the proposed railway line [46].

IV. Nature and Sámi Well-being

Similar conflicts on land use can be seen all over the Arctic, concerning the construction of pipelines via lands that Indigenous peoples use for hunting and harvesting, dam-building projects, deforestation, and many more. In some cases, the disputes will work themselves out, but in many ways, most of these situations are regrettable.

Indigenous peoples and locals become frustrated when they believe that legal rulings for proper consultation are not followed. All these conflicts reveal the juxtaposition of traditional (Indigenous) and industrial values, which affect Arctic health and wellbeing. Young people especially are worried about their future and their ability to continue the Indigenous way of life: Will there be grazing land for reindeer? Will subsistence be possible with windmills, mining, oil pipes, oil drilling, etc.? It is not just about livelihoods but also a person's identity, community, and place. In some Arctic countries, such as Russia, payments are typical to compensate small numbers of Indigenous peoples for the loss of natural resources. However, many researchers have raised the question of sharing the benefits. Also, despite the significant diversity of the existing agreements, none of them ensure the sustainable development of local communities. It is argued that Indigenous communities do not benefit equally from oil and gas production, and no single model of a benefit-sharing policy provides sustainable local development [47]. The lost livelihood and culture are hardly compensated with economic support.

The traditional Sámi understanding of nature is based on language, place names, worldview and stories. It is about insight and skills in harvesting and using nature. There are different versions, depending on place and time. However, they are recognizable to Sámi. The traditional Sámi understanding of nature is a mainstay of the culture and tradition. This material and fundamental insight into nature has developed over generations [48]. The traditional understanding of nature is linked to modern life through its influence on and inspiration for new generations of young Sámis [49]. It thus becomes a living reference and means that the Sámi community feels a connection between past and present [48].

Many young Sámis state that they have an active relationship with nature and that being out in the natural environment improves their physical and mental health. The Sámi understanding of nature connects generations through language, place names, worldviews, and stories, which is of great importance for the Sámi community [6]. The idea that the connection to nature is formed through exploration in childhood has been pointed out by several researchers. It is pointed out that the connection to nature and outdoor activities improves physical and mental health. International research also highlights the significance of the relationship between people and nature [50]. Many young Sámi have a close relationship with nature and have learned the value of using nature from their parents. Nature is sometimes also seen as a therapy to tackle mental problems. However, nature can also be a risk factor that strains the health of many young Sámi reindeer herders, who feel that, e.g., wind farms and new mining operations threaten their livelihoods [6].

"I feel that going into the mountains was part of how I grew up. I didn't grow up with reindeer herding, but my grandfather was a reindeer herder long before my time. Just getting to take part in... doing what counts... I mean, trying to keep traditions alive – the language, the identity, the sense of belonging and nature, the things that become traditions. And I notice that I've become more aware of these in the last few years. I don't want to claim that I'm old and wise. But now that I'm a little older, I've learned to value my origins more" [6].

(Anders, 26)

Young people who have stayed in the Sámi culture have a stronger relationship with their relatives than those who leave the culture and move elsewhere. Traditional knowledge and skills are often passed on to children and young people through older parents and relatives. The relationship with the nature of those who break away from Sámi culture is not as comprehensive as that of those who adhere to the culture. For outsiders of the culture, nature is more of a landscape to be admired, not so much a place to work [51], [52]. Young people living in the north emphasize the importance of nature more than those living in the south. The research results show, for example, that young people from Inari, Finnish Lapland, see nature as offering rejuvenating and enjoyable experiences in busy and stressful everyday life. They often go to nature and are not afraid to go there alone. Experiencing nature is considered to provide spiritual growth as well [53].

The strong relationship with nature can be seen in the old localized northern cultures, of which the Sámi culture is a part. For example, a strong relationship with nature has been highlighted in interviews with people living in Finnish Lapland, but it is not seen as belonging exclusively to Sámi culture. When interviewing students from the Finnish Sámi region, all the respondents felt that nature and being in nature supported their coping. The interviews also revealed the strong family and cultural bonds between Sámi in Nordic countries [54].

In the Sámi upbringing, independence and fending for oneself are vital concepts. Learning how to survive in nature and using nature wisely and sustainably are highly valued Sámi skills, and this knowledge is passed on from generation to generation through active participation. In a study of fundamental Sámi values, 96 % of Sámis say that it is important for them to have contact with nature, and 91 % of Sámis say that it is important for them to harvest from nature through fishing, hunting, and berry-picking [55].

The Sámi culture and way of life have been – and still are – closely connected to one's presence in the natural environment and to the traditional use of nature's bounty. Nature and traditional land use are still key parts of upbringing. Children are taken salmon or whitefish fishing while growing up. Fishing, reindeer husbandry and

agriculture are important Sámi industries, but the reindeer industry is a mainstay of the Sámi culture, especially in Norway and Sweden. Sámi children learn the value of using nature and that people are “guests” of nature [6].

“... what is important for me is that reindeer husbandry exists because I feel that it is an important mainstay of our culture (...); nature and making use of nature are very important values in the Sámi culture and the value ... the concept that we do not own anything. We do not own land here; we are only guests. I also think I carry this value with me, even though I now live in a town...” [6].

(Máret, 21)

Nature is a multidimensional health influencer. It can improve life in conflict situations. Being out in nature and the mountains is a kind of personal therapy when finding things mentally challenging, to the extent that the challenge disappears altogether.

“So it was when I was going through a challenging period. And, of course, I got a lot of help from mum and dad, and I also dealt with things myself by going out into nature.

It was a complete surprise because when things felt tough, I hadn’t experienced that before, so I went into the mountains with my cousin, and everything just went away. So, it was really surprising in a way that... how much of a difference it makes just to get away. It’s a sanctuary” [6].

(Petter, 22)

The rights of Indigenous peoples and environmental campaigning often go hand in hand. For example, the construction of wind farms and the establishment of new mining operations are considered to threaten Sámi industries. Today, nature can also be a source of stress for young Sámis. Young Sámis can experience serious health, financial and social strain due to industry conflicts between new industries such as mining and wind turbines and traditional Sámi areas, especially reindeer grazing land. Pressure on their way of life is perceived as very stressful for many, and many young people lose faith in the future. The current land use in Sámi areas is having an indirect impact on the mental health of young Sámis.

“Because there are so many encroachments on the natural environment... and wind turbines too. I mean, I have relatives who have been directly affected by wind turbines. And in Finnmark, you have this thing with Nussir.... In the majority population, many people are saying that the consequences on the Sámi people or on reindeer husbandry or on the Sea Sámi are not that serious.... But the space for the traditional Sámi industries is just getting smaller and smaller. And the impact of that is that the authorities then say that there are too many reindeer. It’s a kind of eternal vicious circle. And you sort of get tired of it when you get involved. So that there

have been periods when I’ve wanted to go away, just to put a bit of distance between myself and all that” [6].

(Elle, 30)

Research has underlined that the mental health of Sámi youth is connected to the status of Sámi and the possibility of maintaining Sámi traditions and livelihoods. Also, Stoor et al. (2015) have stated that suicide is considered a way out of a situation where Sámi can no longer maintain their culture and identity [56]. Health workers claim that the mental health of young Sámis and young adults is partly related to their opportunity to be able to develop a strong Sámi identity, have self-confidence and self-esteem, have their Indigenous culture acknowledged, have access to culturally sensitive healthcare services that take into account Sámi language skills and cultural skills among others but also *the opportunity to be able to have a future on Sámi terms, for example, to be able to practice traditional Sámi industries such as reindeer husbandry and fishing or live as young Sámis in urban areas*. These questions not only touch on young Sámis’ mental health and well-being but are also absolutely existential questions about young Sámis’ place in society and their rights as Indigenous people in Nordic countries [6].

If livelihood opportunities in the Sámi area become narrower, young people face moving elsewhere, often to cities where they are part of minority groups. This usually weakens the connection to the culture. Losing connection to Sámi livelihoods and culture and loss of language can increase mental health problems [7], [57], [58]. The

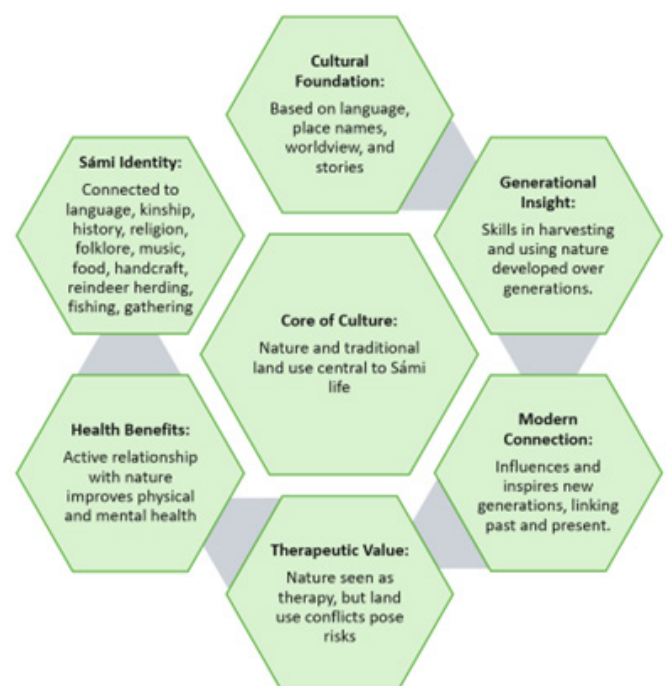


Fig. 3. Well-being and Sámi Young’s understanding of nature (developed by the authors).

qualitative studies have also indicated an emerging threat to Sámi youth's mental health is hopelessness and fear for the future, which also pose a severe mental health risk and impact suicidal behaviour [56] (Fig. 3).

Interviews with Sámi youth reveal the connection between nature, traditional land use, and well-being. Figure 3 demonstrates how strongly nature and traditional land use are at the centre of Sámi life in many Sámi communities. It is not only about moving through nature, but nature is closely tied to identity, health, culture, and the social relationships within the community and family. Land use also combines modernity and tradition: it safeguards and creates continuity.

Conclusions

The link between land use and well-being can be viewed on different scales, from an individual city or a settlement to national and transnational regions, from small communities to nationwide. Research on the relationship between land use and health or well-being has primarily focused on urban planning, which the SDGs also support. Land use in cities and settlements greatly impacts the physical environment of neighbourhoods and the health and well-being of residents; the urban environment can exacerbate or mitigate health and well-being outcomes [59], [60]. New approaches for strategic land-use planning in the North have focused almost solely on healthy urban planning. The interest has been trained on the multiple dimensions of human-environment interaction patterns that may positively affect health and wellbeing. Focusing on that topic as applied to small and medium-sized rural communities has so far been weak, but understanding the interactions between individuals and their environment is critical for community planning in the Arctic [61]. The problems and challenges of regional, national and transnational land use in the Arctic will also require input from researchers and governments.

The intersection of the SDG goals highlights the importance of a holistic approach to sustainable development that respects and incorporates the unique needs and knowledge of the Sámi people. This approach can help balance the competing claims on land use and nature while promoting the well-being of young Sámi individuals. SDG 11, *Sustainable Cities and Communities*, alone does not pay enough attention to the circumstances in the global north. In Northern Europe, the Sámi area is sparse, small settlements and transnational mobility is emblematic. SDG 15, *Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and biodiversity loss*, supports Indigenous traditional livelihoods and subsistence, which is crucial for Sámi culture and wellbeing. SDG 7, *Ensure access to*

affordable, reliable, sustainable and modern energy for all, and SDG 13, *Climate action: Take urgent action to combat climate change and its impacts*, are global and local goals and essential for the Sámi people as well. However, the decision-making planning should be done not only at the national level but also at the local level, involving local communities and with a genuine process of consultation and economic compensation.

Implementing the 17 sustainable development goals includes indicators that directly refer to Indigenous peoples. When discussing land use and well-being, indicators of land rights are crucial. Architects and planners who understand the special nature of the northern Sámi region are urgently needed for the process.

The changing climate and anthropogenic activities affect not only the environment and livelihoods of Indigenous peoples but also their language and culture. Subsistence is a cultural livelihood and way of life at the same time. Traditional know-how is passed on through it, and the livelihood carries the culture and language with it. Participation in community subsistence activities provides the most basic memories and values, and these activities define and establish a sense of family and community [30]. Potential threats to the harvest of wildlife resources elicit fundamental concerns for the health of rural residents.

Adaptation to change has cultural implications, and new livelihood practices have already been introduced. Loss of language and culture, as well as change in living environment and loss of the local lifestyle, will have negative implications for mental and physical health. Preventing climate change might not be possible, but changing top-down land-use planning procedures is possible. The local communities and Indigenous peoples need to have a sense that things can be influenced and controlled. Therefore, in changing circumstances, it is vital to pay attention to land-use planning processes and to raise local voices as a valid, genuine part of decision-making concerning their home areas. Ongoing change must not be accelerated and made even more uncontrollable by top-down land use in the Arctic.

The resource-based industries form a threat to the livelihoods that Indigenous peoples in the Arctic rely on – global or national land-use goals and targets are seen stamping out local livelihoods and cultures. The role of Northern identities is weak in planning processes and conflict negotiations, and we need new knowledge about spatial inequalities and local communities. In such a way, stakeholders can consider their decision-making processes against a broader knowledge base. The top-down decision-making process does not support local cultures. This is a critical issue concerning the Arctic's health and well-being. A key element of defining colonialism is expansion, that is, the conquest of other people's lands and interference in their society and culture. This often includes the exploitation of labour and natural resources, as well as

segregation and hierarchies. Green colonialism refers to a situation in which Indigenous lands are either redeemed or taken without the consent of Indigenous peoples for uses justified, for example, by a renewable, ecological or protective mentality. Will this be the legacy of responding to climate change and building a sustainable future in the Arctic?

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(humanities) and has always found interdisciplinary research to be rewarding.

Anu Soikkeli is a Professor of Arctic Architecture and Environmental Adaptation at the University of Oulu, Finland. She has 20 years of experience in architectural history, restoration, housing, energy efficiency, town and village identities, and participatory design methods. She holds PhDs in architecture (technology) and in history



disability, resilience, child welfare, somatic- and mental health among Sámi children, youth and adults.

Ketil Lenert Hansen is an Indigenous (Sámi) epidemiologist and public health professor at UiT, The Arctic University of Norway, with over 20 years of mixed methods research experience within the Norwegian Indigenous Sámi people. This work has included research on discrimination, bullying, health inequality, violence,

Contact Data

Anu Soikkeli

E-mail: anu.soikkeli@oulu.fi

ORCID iD: <https://orcid.org/0000-0001-5127-558X>

Ketil Lenert Hansen

E-mail: ketil.lenert.hansen@uit.no

ORCID iD: <https://orcid.org/0000-0002-5092-9200>