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RESEARCH ARTICLE



The Sami cooperative herding group: the *siida* system from past to present

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ABSTRACT

The Sami *siida* has been described as an organizational institution tailored to meet the dynamic demands of reindeer herding. Historically, it has been characterized as a relatively small group based on kinship. It was formed around a core sibling group and distinguished by a norm of equality where herding partners were equals regardless of social status. Moreover, it was informally led by a wealthy and skilful person whose authority was primarily related to herding. One of the critical aspects of the *siida* was flexibility: composition and size changed according to the season, and members were free to join and leave the groups as they saw fit. This comparative study of the current status of the *siida* system in the Northern and Southern parts of Norway shows that the main difference between the historical representation of the *siida* system and today concerns a loss of flexibility. Only two herders reported to have changed summer and winter *siida* since 2000. Furthermore, while the *siida* continues to be family-based, leadership is becoming more formal. Nevertheless, decision-making continues to be influenced by concerns of equality.

KEYWORDS



Cooperation; herding group; nomadic pastoralism; group formation; Norway; Sami


Introduction

“In almost every pastoral society, whatever the size of the estate [grazing area or territory to large tribal groups], the associated social group subdivides into smaller groups for camping or herding purposes or both” (Tapper 1979, 98).

Dyson-Hudson (1972, 11) writes that a prominent feature of pastoral social organization is that of a *local exploitation group*, meaning “... a set of domestic and herding units periodically drawn together by a temporary mutual interest”. It is almost impossible for pastoral households to maintain production without cooperative labour investment and mutual help from other households (Khazanov 1994). Nomadic pastoralists thus form cooperative herding groups to solve day-to-day problems concerning herding (Næss 2012, 2019, 2021).

The cooperative herding group – also called the nomadic nuclear community or primary kin group (Khazanov 1994) – is a social unit consisting of independent

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households related by blood. Significantly, it flexibly forms and reforms according to external (e.g. pasture) and internal (e.g. population growth) factors. Kinship is somewhat subordinate to the contractual aspect of being a group member: the relationship among the members of a herding group is often a partnership among equals. One of these groups' critical aspects is that they are dynamic: composition and size changes according to the season, and members are free to join and leave as they see fit. Members of the herding groups combine individually owned herds of livestock where the overall goal is to share labour in connection with day-to-day herding (Næss 2012, 2019, 2021). For Khazanov (1994), a system of mutual help constitutes the foundation and essence of nomadic communities. This points to an essential characteristic of nomadic social organization – that nomadic pastoralists form cooperative herding groups, consisting of several households, with the explicit aim of sharing and exchanging labour (Næss 2012, 2019, 2021).

A prime example of this is the *siida* system among Sami reindeer herders in Scandinavia. This article first provides a brief history of how the *siida* organization of former Sami hunting groups and later pastoralists has been characterized in Norway. We then turn to an analysis of *siida* structure among current herding groups in northern and southern Norway, focussing on kin relations, labour division, decision-making, task allocation, and leadership.

A brief history of the Sami siida: from hunting to reindeer pastoralism

Lowie (1945) writes that the Sami – both pastoralists and hunters – in Norway had a larger unit than the family, i.e. the *siida*. The *siida* was not a joint family, lineage or clan. In effect, the blood relationship between *siida* families was unimportant because families might or might not share close kinship ties. Moreover, the *siida* derived its name from the fishing-sites or winter-quarters and not from a mythical founder (Lowie 1945). Names of *siidas* were, in other words, local.¹ Importantly, Lowie (1945) argues that the role of the *siida* was primarily economic, and a *siida* owned a tract of land that was usually closed off by natural lines of demarcation. Riseth (2000, 120, italics in original) defines the hunting *siida* as

“... an organisation of households, which utilise common-pool-resources for hunting, trapping, and fishing in a geographic area and which claim exclusive rights to these resources”.

Among the Sea-Sami (Norwegian: *“sjøsamer”*), Gjessing (1960, 77) argues that the social type was small bilateral bands, meaning a *siida* or a small village, made up of between 10–12 and 25–30 households with an average ratio of one hunter per three persons. These bands were held together partly by cross-cousin marriages but mainly by the village council and its elected headman. The bands were semi-nomadic, moving between reindeer hunting in the mountains during winter and sealing and fishing at the coast during summer. Using the Skolts – who maintained a reindeer hunting economy until recent times – as an example, Ingold (1978, 151–2) notes that it was only during parts of the year, i.e. winter, that the whole *siida* was together during communal battue hunting. Ingold argues that the hunting *siida* consisted of 10–40 households whose membership hinged upon joint exploitation of a piece of land. The *siida* could refer to both the territory, its resources and the people that use it (see also Riseth 2000, 120).

Reindeer husbandry developed as a pastoral economy at least 400 years ago (Paine 1994; Riseth and Vatn 2009; for other estimates see, e.g. Bjørklund 1990, 2013; Bostedt

2001; Hansen and Olsen 2004; Bergstrøm 2005). The core institutions are the *baiki* (household) and the *siida* (band). *Baiki* members privately own animals and make decisions concerning slaughter and recruitment under each *isit* (husbander). *Baiki* membership is ordinarily achieved by birth or marriage. Formation of a new *baiki* requires a minimum number of reindeer for living and access to a *siida* with ample pastures, workforce, and permission from *siida*-partners to join; that is, the *siida* system traditionally regulated access (Riseth and Vatn 2009, 90).

While the reindeer herders preserved the hunting *siida*, they modified it. Most notably, the size of the *siida* contracted with the transition from hunting to pastoralism (Ingold 1978, 151–2). In Norway, the pastoral *siida* comprised 2–6 families – more often 3 – that herded their animals together in a single herd of 1500–2000 animals (Lowie 1945, 452). Riseth (2000, 122) has summarized the changes in the following way: (1) the *siida* areas became more significant to incorporate the extended migration necessary for reindeer pastoralism and (2) a reduction of the number of households per *siida*. Bjørklund (2013) argues that with the transition to reindeer herding, the old hunting *siida* concept developed into a new and more flexible form. Notably, while the hunting *siida* had clear territorial boundaries, borders now became more flexible: “[h]ouseholds would now cooperate through the year on a bilateral kinship basis, establishing flexible labour groups to manage a fluctuating access to pasture and animals” (Bjørklund 2013, 185).

In Sweden, Whitaker (1978, 167) writes that the traditional divisions of Sami communities into bands (i.e. *siida*) – comprising of 5–8 households – survived into the 1950s in Lainiovuoma, Karesuando, partly due to the necessity of retaining small social units that were mobile. Pehrson (1954, 1076) writes that 93 Könkämä, Karesuando herders were distributed among five summer migratory groups – or bands – ranging in size from 19 to 51 persons. Moreover, these summer groups customarily split into ten smaller winter bands containing 7–28 persons. For Pehrson (1954), the *siida* is a socioeconomic group whose members are united by kinship and who live close together to pursue a common economic goal: that of successfully herding reindeer. Similarly, for Norway, the *siida* has been described as being primarily concerned with herding (Nilsen and Mosli 1994), i.e. the relationship between herd and pasture in connection to the animals’ welfare in the terrain (Paine 1964).

In short, the literature describes the pastoral *siida* as (1) relatively small, (2) flexible, it changed size and composition throughout the season, (3) based on kinship, formed around a core sibling group, (4) characterized by a norm of equality: herding partners were equals regardless of social status, (5) informally led by a wealthy and skilful person whose authority was primarily related to herding and (6) marked by *ad hoc* decision-making (Lowie 1945; Pehrson 1954, 1964; Gjessing 1960; Paine 1964, 1970, 1994; Ingold 1978; Whitaker 1978; Riseth 2000; Bjørklund 2004). This study aims to investigate how well the present-day *siida* system is consistent with this representation by looking at two different reindeer herding areas in Norway, namely West-Finnmark and South-Trøndelag/Hedmark.

Methods

Study area

From a national point of view, the Sami reindeer husbandry is a relatively small industry: consisting of 538 *siida*-shares and 3307 affiliated people (Landbruksdirektoratet

2018, 23). Nevertheless, the Sami reindeer husbandry is vital from a local and Sami perspective in terms of economy and culture. Moreover, reindeer herders use around 40% of Norway's landmass (for more details see Næss and Bårdsen 2013, Text S1). Traditionally, reindeer pastoralism was based on families or households that followed their herds year-round and where the pastoral economy was tied to reindeer products (Vorren 1978). The more recent history of Sami reindeer husbandry can be summarized as being influenced by an increased meat and market adaptation coupled with an increased sedentarization (Riseth 2006). During the late 1970s and onwards, the Norwegian Government became more and more directly engaged in reindeer husbandry through subsidies and regulations. Reforms during the end of the 1970s and early 1980s aimed at increasing both production and co-management (Riseth and Vatn 2009), a trend that is still occurring. Sedentarization, technological changes (primarily through the adoption of snowmobiles and later all-terrain vehicles during the late 1960s; see Riseth and Vatn 2009) and the need to continuously maintain fences have significantly increased the cost of reindeer herding and thus increased the need for monetary income. According to Hausner et al. (2011), monetary income mainly comes from: (1) meat production, (2) governmental subsidies (found to range from 46% [Hausner et al. 2011; 8] to ~50% [Berg 2008] of income), and (3) spouses' wage income. A survey undertaken by Hausner et al. (2011, 8–9) shows that 60% of respondents ($n = 77$) reported that spouses' wages are an essential part of the household income, primarily from women since most men work daily with the herds.

The Sami reindeer herders' social organization consists of three layers. The basic unit is the "*siida-share*": a license granted by the Government entitling the owner to manage a herd of reindeer within a designated area. One or more license owners belong to a *siida* (North) or *sijte* (South, but the official designation is *siida*). The *siida* is a cooperative herding group composed of independent households and was traditionally organized around kinship (*siidas* can also include non-kin). There are 99 summer *siidas* and 150 winter *siidas* in Norway (Landbruksdirektoratet 2018, 23). Finally, *siidas* are grouped into *districts*: formal administration units defined by the Government (cf. Næss and Bårdsen 2013, 2015).

East and West-Finnmark pasture area make up ~70% of the reindeer husbandry in Norway. This area is divided into six distinct zones (Landbruksdirektoratet 2016, 16). West-Finnmark separates into three migratory systems: Kautokeino Eastern Zone, Middle Zone and Western Zone. In East-Finnmark, Karasjok Eastern Zone and Western zone are also naturally separated migratory systems. Further east, we have the Polmak/Varanger zone (Landbruksdirektoratet 2016). There are 23 summer districts in West-Finnmark (plus three from Troms using winter pasture in West-Finnmark) and three winter pastures (Landbruksdirektoratet 2018). There are 12 summer districts in East-Finnmark and one spring/autumn/winter pasture area (Landbruksdirektoratet 2018).

South-Trøndelag and Hedmark pasture area is the southernmost Sami reindeer pasture area in Norway, and herding is distributed among five different reindeer districts. Also, there is a common winter pasture area – Femund – shared by two districts (Fjellheim 1999; Gundersen and Rysstad 2013; for more details concerning the North–South designation, see Riseth, Johansen, and Vatn 2004; Næss and Bårdsen 2015; Næss 2020).

Study protocol

The research reported here is based on interviews undertaken with reindeer herders using the “Middle Zone” winter district in West-Finnmark (hereafter “North”) during June and August 2016 and reindeer herders from South-Trøndelag and Hedmark (hereafter “South”) during August-October 2017 and March 2018 (Figure 1). Participants were recruited by systematically phoning all license owners, the majority of whom were either unreachable, unavailable, or unwilling to participate. All interviews were undertaken in a face-to-face setting, and all participants provided written informed consent. Interviews in the North were done in Sami using an interpreter, while interviews in the South were done in Norwegian.

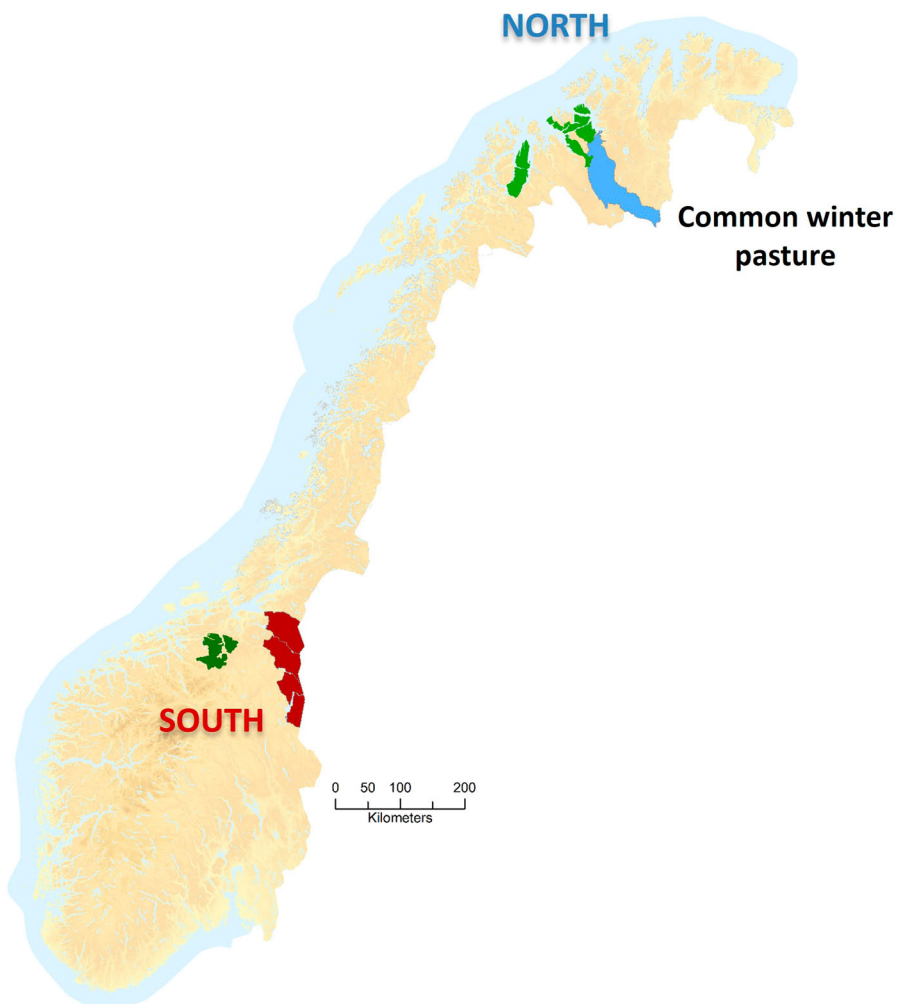


Figure 1. The North (West-Finnmark “Middle Zone”) and the South (South-Trøndelag/Hedmark) reindeer pasture areas used in this study. Areas shaded in green and red indicate summer districts while the blue shaded area indicates the “Middle Zone” common winter pasture.

Table 1. Distribution of sample size and response rate in this study.

	Sample size ^a	Response rate ^b
North		
Winter <i>siida</i> : decisions and influence (S1: Q1)	31	28
Task delegation in the <i>siida</i> (S1: Q6)	31	31
<i>Siida</i> flexibility		
Changing <i>siida</i> (S1: Q7 & Q8)	31	30
Acquiring <i>siida</i> -share (S1: Q5)	31	30
<i>Siida</i> composition (S1: Q9-11)	31	27
South		
Winter <i>siida</i> : decisions and influence (S1: Q1)	17	17
Task delegation in the <i>siida</i> (S1: Q6)	17	6
<i>Siida</i> flexibility		
Changes in <i>siida</i> (S1: Q7 & Q8)	17	17
Acquiring <i>siida</i> -share (S1: Q5)	17	17
<i>Siida</i> composition (S1: Q9-11)	17	16

^aNumber of license owners interviewed.

^bNumber of license owners responding to questions about this particular topic.

The results reported here are based on survey questions about the participant, personal economy, *siida* affiliation, kin relations, and labour division. The survey also contains open-ended qualitative answers concerning decision-making, task allocation and leadership (see Table 1 for sample size and response rate, Table 2 for descriptive statistics and supplemental information S1 for survey questions).

The study design for the North and South were somewhat different. In the North, the explicit aim was to interview herders using winter pasture areas managed as commons, namely the “Middle Zone” winter district (Figure 1). The Middle Zone is used by herders from twelve summer districts, with three of the summer districts located in Troms county.² There are 745 people (95 of whom are licensed owners) distributed among 24 winter *siidas* and 16 summer *siidas* (Landbruksdirektoratet 2016). We interviewed 31 out of 95 *siida*-shares that use the “Middle Zone” winter district (Table 1).³ The herders were distributed among five out of the nine Finnmark-based summer districts and two out of the three Troms-based summer districts using this area during winter (Table 3).

In the South, the explicit aim was to interview herders from all four summer districts (Figure 1). In the South, we interviewed 17 out of 30 *siida*-shares (Table 1). The herders in the South were distributed among four summer districts, covering all the region’s summer districts (Table 3).

Summer *siida* vs summer district

For the whole of Finnmark, Hausner, Fauchald, and Jernsletten (2012, 2) report that 39 of the 44 summer districts in the North are managed by one summer *siida*. Two or three

Table 2. Gender and age distribution of the participants in the North and South. Based on Q2 (gender) and Q3 (year born) in S1: Overview over survey questions in the North and South.

Region	Number of licenses		Mean age (SD)	
	Male	Female	Male	Female
North	29	2	50 (11.9)	48 (21.9)
South	14	3	54 (10.3)	58 (6.1)

Table 3. Distribution of interviews per summer district for North and South.

	Summer district	# interviewed	# Summer siidas ^a	# Winter siidas ^a
North	Ittunjårga	6 ^b	1	1
	Spalca	2 (11.7% of 17 licensed herders)	1	4
	Silvvetnjårga	2 (33% of 6 licensed herders)	2	2
	Joahkonjårga	8 (62% of 13 licensed herders)	1	2
	Låkkonjårga	7 (44% of 16 licensed herders)	1	4
	Stierdna	5 (83% of 6 licensed herders)	2	2
	Ivgolåhku	1 (14.3% of 7 licensed herders)	2	2
South	Gæbrien	5 (50% of 10 licensed herders)	1	1
	Saanti	7 (78% of 9 licensed herders)	1	1
	Svahken	3 (50% of 6 licensed herders)	1	1
	Trollheimen	2 (40% of 5 licensed herders)	1	1

^aSource: Landbruksdirektoratet (2016, 42).

^bWe interviewed six herders with a *siida*-share license from this district, but there are only three *siida*-shares in this district officially (Landbruksdirektoratet 2016, 42, Table 1).

siidas share the remaining five districts.⁴ In effect, in the North, summer districts and summer *siidas* often coincide. Nevertheless, some of the summer districts in this study contain two summer *siidas* (Table 3). However, since it was impossible to place participants in unique summer *siidas* (as opposed to winter *siidas*), sample size and response rate are based on summer district designations, if not stated otherwise. The same is not the case in the South, where the summer *siida* and district are the same.

Research ethics

This study was undertaken by following the “General guidelines for research ethics” as stipulated by the Norwegian National Research Ethics Committee. Specifically, interviews were undertaken following Norwegian National Research Ethics Committee’s ethical checklist by: (1) obtaining written informed consent, (2) ensuring that no dependent relationship exists that could influence the subjects’ decision to give consent, and (3) guaranteeing anonymity and confidentiality of the informants. Moreover, all participants were allowed to freely withdraw from the study at any time during the interview and after.

Results

North

Siida flexibility and social dynamics

In the North, two herders had changed summer- and winter *siida* since 2000 (Figure 2; S1: Q7-8). One herder changed *siida* because she got married and moved to the husband’s *siida*, while another had to move because there was not enough room in the old *siida*: “There was not enough room where I was. Moved [the herd] to another family member” (Herder #N16).

With respect to licensing, 51.6% of herders in the North reported that they inherited their license from a parent or another family member (Table 4; S1: Q5). Furthermore, 32.3% of the herders applied for a license. The remaining herders got their license in another way, e.g. one herder said that “[I] Got it [the license] when they started the *siida*-share system” (Herder #N87).

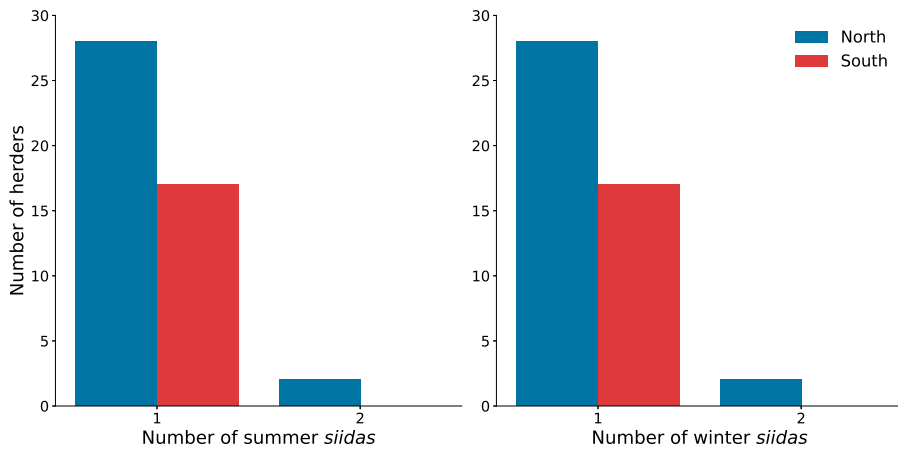


Figure 2. Bar plots showing how many *siidas* the participants for the two different regions have been a member of since the year 2000. In the North ($n = 30$), only two herders have belonged to more than one *siida*, while in the South ($n = 17$), none of the herders had changed *siida*. *Left* shows summer *siida* affiliation, and *Right* shows winter *siida* affiliation. Based on Q7-8 in S1: Overview over survey questions in the North and South.

Table 4. How herders in the two regions acquired their licenses. Inherited indicates herders that inherited the license from a parent or another family member (S1 Q5).

Region	Inherited	Applied	Other
North	16	10	5
South	12	2	3

Siida composition

Most herders belong to the same *siida* as their parents and siblings. In the North, the percentage is a bit higher for the winter *siida* than the summer *siida*. The male line seems to share groups more often than the female line: more herders report belonging to the same group as their brother and paternal grandparents (Figures 3 and 4; S1: Q9-11). Moreover, most herders have at least one close relative with a license in their group. That is, in the North, 85.2% ($n = 27$)⁵ of the herders reported having relatives in the same group, with a coefficient of relatedness of 0.25 or higher (i.e. parents, grandparents, children, grandchildren, sibling, aunt, uncles, nieces, or nephews).

Another distinct feature of both the summer and winter *siida* is nuclear sibling groups, i.e. most *siidas* consist of at least one pair of siblings with their respective license (S1: Q10). In the North, three of the four summer *siidas* had at least one sibling group, while nine of the eleven winter *siidas* had at least one sibling group (Table 5).

Decision-making, work-allocation, and leadership

Generally, herders in the North focused on the *togetherness* of the *siida* when discussing decision-making and influence in the winter *siida* (S1: Q1). Concerning decisions, nineteen herders simply framed the response with words like “together” or “everybody” (28 herders responded to this question, see also Figure 5), six herders provide contextual qualifiers like

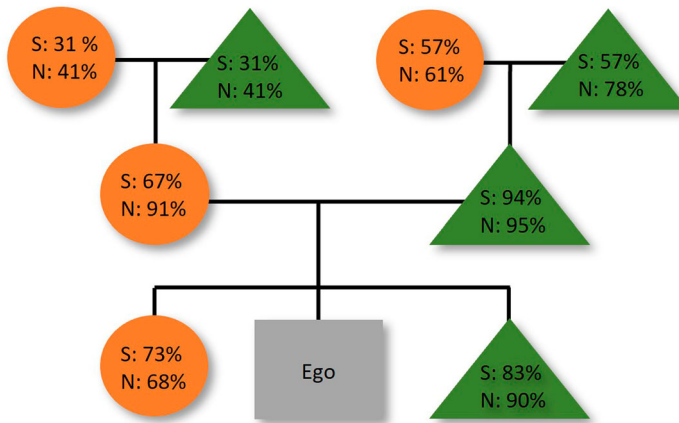


Figure 3. The composition of summer *siidas* in the South (S) and North (N). The numbers indicate the percentage of each family member belonging to the same summer group as the participant (ego). The number for brother and sister indicates at least one brother or sister in the same group. Male relatives are marked with triangles, while female relatives are marked with circles. From top left to right; maternal grandmother (North n = 17, South n = 13), maternal grandfather (North n = 17, South n = 13), paternal grandmother (North n = 18, South n = 14), paternal grandfather (north n = 18, south n = 14), mother (North n = 21, South n = 15), father (North n = 20, South n = 16), sister (North n = 22, South n = 11), ego and brother (North n = 20, South n = 12). Based on Q9-11 in S1: Overview over survey questions in the North and South.

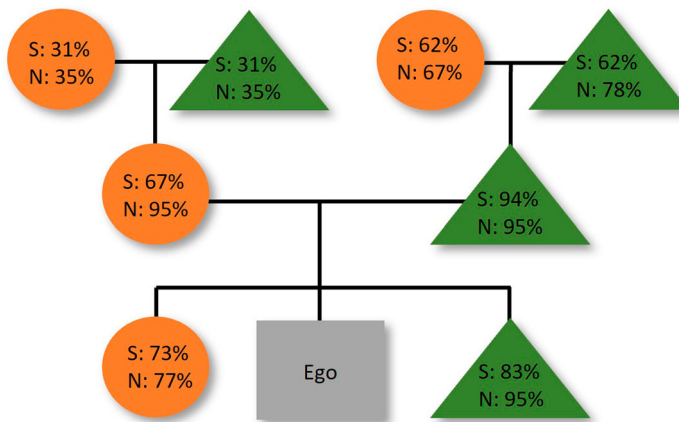


Figure 4. The composition of winter *siidas* in the South (S) and the North (N). The numbers indicate the percentage of each family member belonging to the same winter *siida* as the participant (ego). The number for brother and sister indicates at least one brother or sister in the same *siida*. Male relatives are marked with triangles, while female relatives are marked with circles. From top left to right; maternal grandmother (North n = 17, South n = 13), maternal grandfather (North n = 17, South n = 13), paternal grandmother (North n = 18, South n = 13), paternal grandfather (North n = 18, South n = 13), mother (North n = 21, South n = 15), father (North n = 21, South n = 16), sister (North n = 22, South n = 11), ego and brother (North n = 20, South n = 12). Based on Q9-11 in S1: Overview over survey questions in the North and South.

Table 5. The distribution of sibling groups among license owners in the North for summer district containing only one summer *siida* and winter *siidas* (S1 Q10).

North	# <i>siida</i> -shares ^a	Sibling groups
Summer districts with one <i>siida</i>		
Lákkonjárga	16	Three brothers, and two brothers
Joahkonjárga	13	Two brothers and a sister; two brothers and a sister; and two brothers
Spalca	17	No information available.
Ittunjárga	3	Two brothers
Winter <i>siida</i>		
#1	5	No information available.
#2	3	Two brothers
#3	7	Two brothers; and two brothers
#4	4	Two brothers
#5	No information available.	Four brothers
#6	6	Three brothers
#7	2	No information available.
#8	3	Two brothers
#9	6	Two brothers
#10	3	Two brothers
#11	5	Three brothers; and two brothers

^aBased on a combination of information from Landbruksdirektoratet (2016) (summer) and talks with representatives from the Landbruksdirektoratet in Alta (winter).

“being with the herd”, and one herder stated for example that: “The one who is working at the moment knows the situation best and knows what is going on. Therefore, he has most influence when we make decisions about work” (Herder #N53).

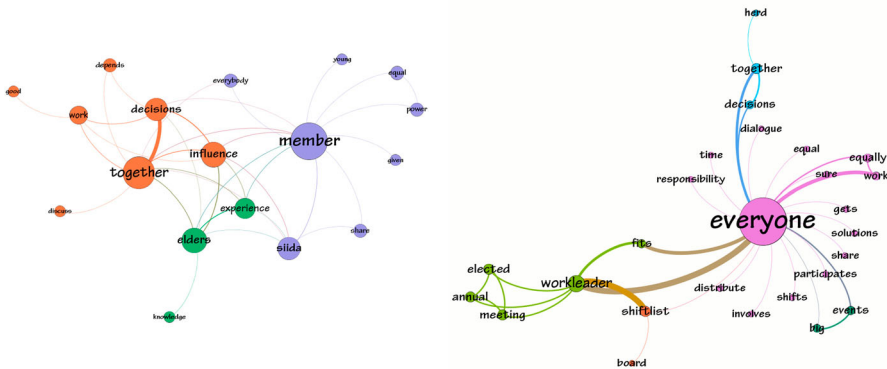


Figure 5. Co-occurrence graph of words in answers to questions about decision-making and influence in the winter *siida* in the North (left panel, restricted to the largest network component of the 40 most co-occurring words) and the South (right panel, restricted to the largest network component of the 35 most co-occurring words). Size of nodes indicate degree centrality, i.e. it shows the number of edges of the node (the more ties a node has, the more central it is, meaning that size of the node indicates the importance of words in the co-occurrence graph), the colour of nodes and words indicates communities (edges between same-coloured nodes are more common than edges between different coloured nodes) and width of edges represent weights, i.e. links between words. Co-occurrence graph made on a sentence basis, i.e. it represents which words co-occur together on the sentence level. Graph processing in *networkx* (Hagberg, Schult, and Swart 2008) while visualization performed in *Gephi* (Bastian, Heymann, and Jacomy 2009). Based on Q1 in S1: Overview over survey questions in the North and South.

Only three herders provided other answers, such as “routine eliminates the need for decisions”, that decisions are made “as we go”, or by “the one who works at the moment”. Only three herders mentioned leadership. One herder stated, for example, that they “have one leader with responsibility for each job” (Herder #N20). At the same time, another said that while “they have a formal leader, they make decisions together” (Herder #N24). The final herder stressed that “the oldest is a natural leader because of experience” (Herder #N130).

When influence was raised (by seventeen herders), the elders were often singled out as the ones with most influence due to experience (but only seven herders explicitly mentioned elders):

“The elders have more knowledge and experience, but the decision[s] are made together as a group. The ones who work the most have more influence” (Herder #N23)

“We discuss together, but as the oldest *siida* member, I have more influence than the others because of my experience” (Herder #N30)

However, in general, herders argued that everyone has influence (10 herders).

Concerning a more general question of task delegation in the *siida* (i.e. winter or summer not specified; S1: Q6), nineteen herders responded that they “take turns”. Additional herders responded that they share work equally among themselves (six herders), Facebook is an essential tool for organizing work (one herder), having annual meetings (one herder), developing weekly plans (one herder) and depends on the situation (one herder). Furthermore, herders also consider the number of reindeer and number of individuals in a *siida*-share when delegating work (but only three herders responded thus). An additional factor considered was the prevalence of other work (two herders qualified their response to that effect).

South

Siida flexibility and social dynamics

None of the herders interviewed in the South had changed winter or summer *siida* since 2000 (or ever) (Figure 2; S1: Q7-8). Among herders in the South, the most common way to get a license is to inherit it from a parent or another family member (66.7% of respondents, Table 4; S1: Q5), even though 11% of the herders applied for a license. The remaining herders got their license in another way. For instance, herders received their license when the *siida*-share/license system first was instituted in Norway: “[the Government] started with *siida*-shares in the 70s. [I] was lucky and got one.” (Herder #S10).

Siida composition

Most herders belong to the same *siida* as their parents and siblings. In the South, there is no distinction between summer and winter *siida* because they are composed of the same herders. Furthermore, the male line seems to share the same *siida* more often than the female line (Figures 3 and 4; S1: Q9-11). More herders report belonging in the same *siida* as their brother and paternal grandparents.

Moreover, most herders have at least one close relative with a license in their summer *siida*. In the South, 56.3% (n = 16) of the herders reported having relatives in the same *siida* with a relatedness coefficient of 0.25 or higher (i.e. parents, grandparents, children,

Table 6. The distribution of sibling groups among license owners in the South (S1 Q10).

South	# <i>siida</i> -shares ^a	Sibling groups
<i>Siida</i>		
Gåebrien	10	Brother and sister; and brother and sister
Saanti	9	Two brothers; and two brothers
Svahken	6	Brother and sister
Trollheimen	5	Two brothers

^aBased on a combination of information from the Landbruksdirektoratet (2016) and interviews.

grandchildren, sibling, aunt, uncles, nieces, or nephews). Like in the North, there is a presence of nuclear sibling groups. Every *siida* consists of at least one pair of siblings with their respective license (S1: Q10). Two *siidas* had one pair of siblings, while the two remaining *siidas* had two separate pairs of siblings (Table 6).

Decision-making, work-allocation, and leadership

In the South, herders focused on the rotational aspect of herding when discussing decision-making in the winter *siida* (S1: Q1): 13 herders answered that their *siida* has a shift list (seventeen herders responded to this question). Only three herders provided information concerning composition during shifts, ranging from three to four herders. Moreover, five herders stressed that everyone participates at significant events, such as calving, slaughtering, and migration. Eleven herders stated that decisions are made together. Pertinently, while the work leader or the district board oversees the making of the shift list (ten herders pointed out the role of the work leader or board in making shift lists), an internal agreement is essential (Figure 5). One herder pointed to the contextual aspect of herding: “The board and work leader set up the worklist (rotational). Herders out herding make decisions” (Herder #S8).

Furthermore, while the presence of a shift list may indicate the equal distribution of work, two herders stressed that skill also plays a part in determining who does what. One herder pointed out that some herders have responsibilities outside of the herding community (Herder #S3), while another stated that the district leader is exempted from daily work with herding (Herder #S14). Leadership also seems to be rotational: two herders pointed out that the work leader is elected every second year. Only one herder stressed the importance of elders: being seasoned herders with the most experience, they are the ones one listens the most to (Herder #S15). Only one herder pointed to the possible conflictual aspect of herding: “There is no use having a dialogue. The other people in the *siida* are in the same family and have the majority [...]. Not informed about happenings” (Herder #S24).

Concerning a more general question of task delegation in the *siida* (i.e. winter or summer not specified; S1: Q6), only six herders⁶ responded to this question, and responses were similar to those for the winter *siida*. The work leader or the board are in charge of making shift lists and delegate tasks (three herders). In contrast, one herder stressed that they try to distribute work in equal amounts so that no one feels “abused”, and another stated that it was “random and depends on who is available” (Herder #S10). The final herder (Herder #S24) again stressed being left out and having no “rights”.

Changes and continuities in the *siida* system

Siida flexibility

None of the herders interviewed in the South had changed winter or summer *siida* since 2000 (or ever, [Figure 2](#)), while in the North, only two herders had changed summer and winter *siida* in the same period ([Figure 2](#)). In general, summer *siidas* are more formal than winter *siidas*: the summer *siida* was formally recognized in the Reindeer Management Act from 2007 (Landbruks- og matdepartementet 2007) and must have a board that facilitates the practical implementation of collaborative activities. The same is not the case for the winter *siida*; in the North, *siida* composition varies by season ([Table 3](#)). Winter *siidas* are smaller than summer *siidas* and might not even be composed of the same people ([Næss 2020](#)). In contrast, there is no seasonal difference in *siida* composition in the South: they work together with the same individuals throughout the seasons. In effect, the winter and summer *siida* is the same in the South.

The limited number of individuals changing *siida* affiliation is surprising considering the prominent role flexibility has been given in the literature; occasionally, local conditions, e.g. poor pasture, precluded families from joining together, meaning that each herder had to herd for himself ([Lowie 1945](#), 452). Moreover, membership in a given *siida* might only hold for parts of the year or might change from one year to the next; in Norway, the *siidas* were, for example, smallest during spring calving and largest during summer ([Paine 2009](#)). For Sweden, [Ingold \(1978, 151\)](#) argues that there was a tendency towards seasonal aggregation and dispersal where the larger summer *siidas* segmented into two or several smaller bands at the onset of winter and regrouped in spring. Pertinently, he ascribed the degree of dispersal to the abundance of winter pasture.

Moreover, [Solem \(1970, 187\)](#) argues that internal conflicts might change *siida* membership: for example, if a member were dissatisfied with the *siida's* leader, he could choose to herd alone or change *siida*. Changing *siida*, however, entailed a critical caveat: people would gossip about the reasons. Moreover, if there was a shared opinion that the person had no legitimate reason for challenging a leader's decisions, no one would want to herd together with him, in effect leaving the person with no herding partners. It also occurred that some herders were rumoured to be so quarrelsome that they had to herd alone ([Solem 1970, 187](#)).

In general, it has been argued that *siida* membership can change over time to optimize the relationship between herds and personnel ([Paine 1994](#); [Bjørklund 2004, 2013](#)). [Ingold \(1978, 154\)](#) writes:

“It [the *siida*] is fluid in composition, for its members may always leave to join another band in which they have kin ties. Such movements are typically occasioned by the events of birth, marriage and death, by fluctuating fortunes in reindeer holding, and by local variations in the abundance and distribution of pasture”.

In short, the *siida* is described as an organizational institution tailored to meet the dynamic demands of reindeer herding. While the seasonal pattern of *siida* membership continues in the North, evidence from this study indicates that flexibility concerning changing *siida* affiliation is currently not a factor in the North or South.

The formalization of reindeer herding

The loss of flexibility can be argued to be a part of an increasing formalization of reindeer herding in Norway, starting with the district designation. While a district division was not formalized in the North until the Reindeer Husbandry Law of 1933, in the South, districts were established by Royal Resolution in 1894, based on the Common Lapp Law of 1883 (cf. Næss 2020). In the North district, designation aimed to regulate pasture use between herders following the closing of the border between Norway and Finland in 1852, effectively cutting Sami herders on the Norwegian side off from traditional winter pastures in Finland. Thus, a new pattern of usage was established, culminating in the district designation in 1933 (cf. Næss 2020). In the South, the main aim of this was to protect farmers from damages incurred by reindeer. That is, the aim was not to provide herders with grazing rights, but rather to provide more reliable control while at the same time ensuring damage compensation for the sedentary population (cf. Næss 2020).

There is also an increasing formalization of the *siida* system. Marin (2006) argues, for example, that by individualizing reindeer herding through legal permits vested in individual herders – the *siida-share* licence⁷ – the cooperative nature of reindeer herding eroded. Through the reindeer licence, “... herders did not need the approval of the herding community at large anymore and could pursue their own interests” (Marin 2006, 217). While Paine (2009, 123) argues that “... inter-camp [*siida*] relations are the loci of changing, and at times uneasy, combinations of trust and suspicion”, the introduction of the reindeer license could result in an erosion of trust *between members of the same siida*. While this is not evident in the material presented here, Hausner, Fauchald, and Jernsletten (2012) found that in the North, there is a low level of trust and cooperation *between siidas*. This is especially evident on winter pastures where 52% of the respondents ($n = 74$) are suspicious towards their neighbours, and only 19% report a substantial degree of trust towards their neighbouring herdsmen (Hausner, Fauchald, and Jernsletten 2012, 4). In contrast, on summer pastures, trust is high: most summer pastures are managed by one *siida* whose members have strong family ties with a long history of collaboration (Hausner, Fauchald, and Jernsletten 2012).

Furthermore, the summer *siida* was legally recognized in the Reindeer Management Act from 2007 (Landbruks- og matdepartementet 2007). There are currently plans to formalize the winter *siida*, primarily through establishing fixed *siida* grazing boundaries and user rules, especially in the North (Reindrifftsforvaltningen 2006, 2008). This redistribution is reinstating power to the traditional Sami *siida* system by giving *siidas* exclusive user rights to geographically delineated winter areas (Berg 2007; Landbruks- og matdepartementet 2007). Officially, clear cut area designations are assumed to be essential for establishing the highest number of reindeer that a *siida* can keep and still be ecologically sustainable (Landbruks- og matdepartementet 2005).

This process arguably formalizes what has always been the case: that the *siida* system incorporates a relationship to the land. Concerning the hunting *siida*, Ingold (1978) argues, for example, that it was defined explicitly concerning the joint exploitation of a range. The same term could refer to the range of territory, its resources, and the people it contained. While pastures were historically Crown land in Norway, the pastoral *siida* formed the basis for user rights both within districts during summer and on the winter pastures. In other words, the customary tenure system was based on *siida* user

rights (albeit informal). Winter pastures were informally regulated according to *siida* membership – i.e. Sami reindeer herders had a clear understanding that different winter pasture areas belonged to different *siidas*. Nevertheless, when in need, everybody had the right to access alternative pastures (Paine 1994; Riseth 2000, 132; Marin and Bjørklund 2015). In short, the *siida* as an institution rests on the relationship between territory, humans, and reindeer. In effect, the *siida* is tied to the land (Kalstad 1999)⁸, albeit in a flexible way (Bjørklund 2013).

Nevertheless, Jonassen and Kalstad (2003) argue that legal regulation has limited the *siida*'s flexibility. The Reindeer Management Act of 1978 stated that individual herders could freely change *siida* membership within the same district if the new *siida* accepted it (Landbruks- og matdepartementet 1978). In contrast, moving to a *siida* in another district necessitated approval from the Area Board.⁹ The Reindeer Management Act of 2007 seems to have made official approval a necessity regardless; in effect, transferring a *siida*-share from one *siida* to another needs the approval of the County Governor (Landbruks- og matdepartementet 2007, §11, fifth subsection); within or outside of the district is not mentioned.

Evidence also indicates that the *siida* system might change as a consequence of tenure changes. Whitaker (1978) argues that the *siida* system among the Lainiovuoma herders in Sweden ossified with land tenure changes in Norway. When Norway became independent of Sweden in 1905, Swedish herders lost some of the traditional summer grazing areas in Norway. At this time, on the Norwegian side, delineated summer districts were in place for which each herder had to register. The dates of entry, and the total number of reindeer from Sweden allowed to use a particular area, were carefully regulated (Whitaker 1978). In short, Whitaker (1978, 167–8) argues: "... the district system [in Norway] effectively ossified the division into bands, since particular bands became identified with particular summer pasture districts in Norway". Between 1920 and 1950, bands' composition did not change much: The same group of people would migrate together all-year-round except during severe winters when they would separate into even smaller groupings (Whitaker 1978).¹⁰

In sum, while flexibility has been prominent in the past, this aspect of the *siida* is currently being transformed.

Equal partners

This study found that a norm of equality characterizes work and decision-making in the *siida*. In the North, herders focused on the *togetherness* of the *siida* when discussing decision-making and influence in the winter *siida* (Figure 5). In the South, the focus was placed on the *rotational* aspects of herding in the winter *siida*, i.e. they have shift lists that distribute work. Nevertheless, decisions are made by everyone (Figure 5). Moreover, in the South, at significant events such as calving, slaughtering and migration, everyone participates. A similar pattern was found concerning more general task delegation in the *siida*. Herders in the North stressed that they take turns herding and try to share work equally amongst themselves (Figure 5).

A similar pattern is described in the literature: while a herd owner might be the boss of his family herd, in herding relations he was but one of several partners (Paine 1970, 55). Paine (1970) describes the herding relationship as one of high mutual dependence and

trust between partners. Within the *siida*, Paine (1970) argues that herders had discretionary authority: any member of a *siida* at a particular time and place might face circumstances whereby he needed to decide – which consequently affected all the *siida* members. The decision and subsequent action were thus based on personal experience and group training: herding tactics were discussed extensively at camp, and camp conversations prepared herders for decisions in moments of crisis. While decisions were made based on equality, there was also an element of group sanctions through camp discussions (Paine 1970). The decisions concerning herding point to the dynamism of the *siida*: decisions are often short-term and tactics are not planned beyond the duration of a season or a migration. Decisions are often *ad hoc* and made in response to unforeseen and unpredictable events (Paine 1970). Moreover, Paine (1970) writes that men with different family herds, but brought together in a herding relationship (i.e. in a *siida*), treated each other mainly as equals regardless of differences in wealth, age and domestic status.

Furthermore, herders in the North also consider the number of reindeer and the number of individuals in a *siida*-share when delegating work. Fewer herders in the South responded to questions concerning more general task delegation in the *siida*. Nevertheless, the responses in the South were in accordance with questions concerning the winter *siida*. In the North, there also continues to be a level of *ad hoc* decision-making, i.e. herders being with the herd make decisions. Only one herder in the South stated something similar. Furthermore, while the presence of a shift list may indicate the equal distribution of work in the South, skill also plays a part in determining who does what.

Leadership

While only three herders mentioned leadership in the North, herders in the South stated that the work leader or the district board oversees the shift list. Nevertheless, an internal agreement is viewed as essential. Furthermore, leadership also seems to be rotational in the South: two herders pointed out that the work leader is elected every second year. Leadership, at least in the South, seems to be a formal position. Concerning influence, elders were rarely mentioned. While seven herders in the North singled out the elders as the ones with the most influence due to experience, in the South, only one herder stressed the importance of elders: being seasoned herders with the most experience, they are the ones they listen to.

In contrast, the literature describes leadership as informal. According to Pehrson (1954, 1077), the Sami term for the leader – *siida-ised/sii'dâ-ised* translates to mean the “master of the band”. Nevertheless, he prefers the term herding leader because it considers all the implications of the Sami term: (1) *siida*, a group of people who migrate together with a collectively herded but individually owned herd of reindeer; and (2) *ised*, head of a family or employer of a hired man or woman.¹¹

There was no election of the *ised*, and according to Ingold (1978, 155), wealth (i.e. herd size, Solem 1970) was a necessary, if not sufficient, condition of leadership. Thus, among the Könkämä Sami in Sweden, the ideal leader was: “... a rich and mature man who has inherited the post from his father at the latter’s death, who is the eldest brother of several siblings, and who is married to a fertile woman with many kinsmen” (Pehrson 1954, 1077–8).

Besides being the owner of a large herd, a leader also had to be a competent herder and able to call upon the support of numerous kin and affines (Ingold 1978, 155). Similarly, Bjørklund (2013, 185) argues that social status, political power, and access to pasture was dependent on the size of herds. Leadership was an informal position; if a leader was deemed incompetent or his fortunes turned, he most likely lost support. According to Solem (1970, 185), the person who became a leader was the leader only as long as he had the necessary authority, which rested on experience and skill with reindeer husbandry and a sufficient number of reindeer. These things are interconnected; however, a favourable economic result in reindeer husbandry is to a remarkable degree dependent upon the leader's skill. Similarly, in Norway, Lowie (1945, 452) argues that the leader emerged naturally as the most affluent and experienced herder.

According to Solem (1970, 185), the authority of the leader was relatively high. A leader decided on the time for migration and allocated tasks among the members of the *siida* (Lowie 1945, 452), according to the number of reindeer each member has (Solem 1970, 185). While the members influenced him, his word was often decisive. Solem (1970, 185) argues that while a wise *ised* considered the other members' advice, the *ised* had the final word (see also, Lowie 1945, 452). Leadership might descend to the eldest son, providing that he displayed the required efficiency (Lowie 1945, 452) and skills (Solem 1970, 185).

More generally, Pehrson (1954) argues that the leader was in charge of coordinating activities directed towards successfully herding reindeer. Nevertheless, according to Pehrson (1954, 1077), the band was named after its leader (see also Solem 1970, 185), and it is he who decided " ... which kin groups within the band shall furnish personnel for a herding expedition". The leader also (1) set migration dates, (2) accepted or rejected applications for band membership and (3) directed herd movements. Moreover, the leader provided an element of stability and continuity for the loosely organized band since his successor was usually one of his sons or sons-in-law (Pehrson 1954).

Composition

Both in the North and the South, the *siida* continues to be family-based. Most herders belong to the same *siida* (or district) as their parents and siblings and inherit their family member's license. A distinct feature of both the summer and winter *siida* in the North (Table 5) and the South (Table 6) is the presence of nuclear sibling groups, i.e. they primarily consist of at least one pair of siblings with a license. Both in the North and the South, the male line seems to share a group more often than the female line. More herders report belonging to the same group as their brother and paternal grandparents in both regions than not (Figures 3 and 4).

According to Pehrson (1957, 90; cited in Ingold 1978, 154), *siida* members were " ... almost invariably recruited on the basis of kinship or affinity, such that 'each person in the band is related to every other person in the band either directly or indirectly through a third person'". A notable feature of the *siida* was the prevalence of siblinghood, which – according to Paine (2009, 5) – was not only biological but also " ... a social construction of a sense of mutual identity independent of genealogy". The Sami kinship system is extensive and includes terms for consanguineal and affinal relationships (Pehrson 1964) and it is bilateral, i.e. kinship is defined through both the male and

female lines (Gjessing 1975). While sibling groups formed the basic corporate units, sibling solidarity could be extended to include cousins and other affinal relatives of the same generation (Gjessing 1960, 76; Paine 1964; 256–257 in Bergman et al. 2008, 100). For Sweden, Pehrson (1954, 1078) argues that each band, i.e. *siida*, was organized around a group of brothers and sisters who provided a nucleus to the band's genealogical structure.

Nevertheless, concerning recruitment, kinship is defined so that the recruitment of a new *siida*-member occurred among kin at least as close as second-cousin. Only if this is impossible does one look for more distant kin. However, this does not stop non-kin from becoming members: servants or helpers (*dreng*) can, after a while, become full members of the *siida* (Jonassen and Kalstad 2003). Pertinently, the leader of the *siida* was "... always a member of this nuclear or dominant sibling group" (Pehrson 1954, 1078).

Concluding remarks

While the *siida* system in Norway has kept some of its fundamental aspects concerning composition and norms of equality, results from this study indicate that it is in the process of formalization. While leadership traditionally was an informal position – the *siida* being led by a wealthy and skilfull person whose authority was primarily related to herding – leadership is now a formal position. Nevertheless, leaders are elected, and herders take turns being a leader, at least in the South.

Formalization also impacts *siida* flexibility. The *siida* has been described as a flexible social institution: it changed size and composition throughout the season, and individuals could change *siida* membership. For example, if a member was dissatisfied with the leader, he could choose to herd alone or change *siida*. In short, while flexibility was prominent in the past, this aspect of the *siida* is currently lost. Flexibility is essential because mobility – specifically the movement of people – is a crucial prerequisite for cooperation. The ability to move away allows co-operators to assort positively and limit the rate at which co-operators are exposed to defectors. There are indications that the ability to change group allows cooperation to persist for an extended period (Efferson et al. 2016). In effect, the ability to change group membership might have been a vital mechanism sustaining cooperation within the *siida*.

The plans to formalize the winter *siida*, primarily through establishing fixed *siida* grazing boundaries and user rules in the North, can be viewed as a step towards a private tenure system. Comparative evidence from Asia indicates that privatization may break up already existing group organization and prevent "... effective cooperation in herd and rangeland management within and among pastoral communities" (Yamaguchi 2011, 141–2). While privatization has increased levels of conflicts and created a potential for new disputes (Yeh 2003; Pirie 2005; Cao et al. 2013), it has also changed the nature of conflicts. Previously, conflicts occurred primarily *between groups* – e.g. in the reindeer husbandry, conflicts arose over encroachment onto a rival *siida*'s pasture, theft of reindeer and destruction of fences (Paine 1970). Comparative evidence indicates that privatization has resulted in conflicts between *individual (former) group members* (Yeh 2003) and also between family members (usually brothers) and neighbouring households (Taylor 2006). In short, formerly cooperative relationships may have been transformed into competitive relationships (Li and Huntsinger 2011).

More recently, Cao et al. (2018) have reviewed the effects of single-household rangeland management versus multi-household rangeland management on the Qinghai-Tibetan Plateau. Under the first system, property lines between individual households have disrupted social networks and consequently limited the sharing of labour, food, and pasture (Cao et al. 2018). Specifically, the multi-household rangeland management system scored better on socioeconomic variables like income, cost, equality, livestock mortality, monitoring, mutual aid, social relations and cultural heritage (Cao et al. 2018). Thus, while the *siida* system is currently being transformed, management initiatives aimed at increasing production efficiency through partial or complete privatization of individual households' grazing rights – based on the idea that pastoralism is characterized by “the tragedy of the commons” in terms of resource management (Hardin 1968) – should carefully consider the beneficial aspect of jointly managed rangelands to preserve the critical collaborative nature of nomadic pastoralism (Næss 2021). As Khazanov (1994) has noted, privatization turns *pasture* into *land*, a process that represents a threat to collective existence.

Notes

1. When considering Sweden, Pehrson (1954, 1077) writes that the *siida* took its name after its leader, i.e., *siidâ-ised*.
2. On the 1st of January 2020 Troms and Finnmark Counties were merged to become one County, namely Troms and Finnmark County. However, since all the data that this study is based on were collected before this change, Troms County and Finnmark County will be used.
3. Keep in mind that in one summer district we interviewed six herders with *siida*-share licenses but there are officially only three *siida*-shares in this district (Landbruksdirektoratet 2016, 42, Table 1). This because there are two pairs of married couples, each pair sharing a license. All herders are treated as a unique herder in the same way as the other participants in the study (see Table 3).
4. In contrast, during winter the five largest winter pastures encompass 11–21 *siidas*, whereas the five smallest winter pastures are managed by one to six *siidas* each (Hausner, Fauchald, and Jernsletten 2012, 2).
5. The number shows only the herders that we can be certain have close relatives in the same *siida*. It is possible that some of the herders have relatives they did not mention in the survey, thus it might be a higher percentage of herders that have close kin in the same *siida* (four herders in the North and one herder in the South did not want to provide information about kin relations).
6. Low response to this question in the South is most likely because there is little seasonal difference in *siida* composition: they work together with the same individuals throughout the seasons.
7. The license system was introduced by the Reindeer Management Act of 1978 (Landbruks- og matdepartementet 1978), but it was then called “*driftsenhet*” (husbandry unit), and later renamed to “*siidaandel*” (*siida*-share) in the Act of 2007 (Landbruks- og matdepartementet 2007).
8. In contrast, Pehrson (1964) argues that in Sweden the *siida* was not a corporate band because the name of the *siida* changed with the death of its herding leader and the band genealogical composition changed rapidly with the death of and marriage of individual members. More to the point, because of this fluidity the *siida*—as a kin group—did not own or control property, i.e., pastures.
9. The Area Board has been dismantled and its responsibilities are currently placed on the County Governor.

10. This was not to last: while the *siida* was the most important social structure among the Lainiovuoma herders in the early 1950s, by 1977 band allegiance was reduced and people were—to a certain degree—moving between bands. Since all the herders used the same summer pastures in Norway, membership in one band over another had no benefits with regards to pastures. In effect, the band organization became less and less important among the Lainiovuoma herders, especially during summer (Whitaker 1978).
11. The term *siida-æmed* (*sii'dâ-æmed*), or mistress of the band is used for women.

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