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Land use planning in disputed mountain areas: conflicting interests and common arenas

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Mountain areas are often subject to conflicts between different user interests and protection. The authors examine land use planning processes in Norway applied in accordance with the Planning and Building Act and the Nature Diversity Act and discuss how they might be improved. They find that although influenced by trends of decentralization, inclusion and integration, and principles for multilevel governance, the land use planning approaches for use and protection are still performed in the shadow of instrumentalism and hierarchy with little awareness of their limitations in practical use. The “communicative turn” has stimulated comprehensive participation processes, but these consensus-oriented processes have to some extent been able to handle conflicting interests. The authors conclude that in future planning it will be vital to establish common arenas as trading zones for coordinated municipal, regional and national planning, combining instrumental and communicative practices with agonistic approaches in a multilevel governance network.

Keywords: land use planning; conflict; agonism; arena; protection

1. Introduction

In recent decades and in the wake of large-scale structural changes in the Global North such as urbanization, green industrialization and increased levels of prosperity, there has been a re-resourcing of rural and mountain areas and an increased interest in using them for production and recreation purposes (Perkins 2006; Rønningen and Flemsaeter 2016). This has led to the emergence of new actor groups and altered relationships between existing actor groups, including the distribution of power in planning and management processes. Thus, historical tensions between production and recreation issues have been reinforced (Teigen and Skjeggedal 2015; Flemsaeter *et al.* 2019). In addition to conflicts between different interests in the mountain areas, we have increasingly witnessed conflicts between the new large and urban “recreation class” and people in the mountain areas who are still utilizing those areas as part of the resource base for their farms. Moreover, conflicts between local and national management are rooted in historical tensions regarding political power and autonomy

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(Teigen and Skjeggedal 2015). In Norway, these conflict dimensions are strengthened by the fact that mountain areas are located on the periphery and the population is relatively small and declining (Arnesen *et al.* 2010).

The production–recreation and local–national conflict dimensions are inherent in the ongoing shift in management attitudes toward protected mountain areas, from being exclusively national to needing a certain degree of local responsibility in terms of protected area management. *Decentralization* from national to local level is practised to allow for different types of knowledge to be combined, to secure participation and influence from affected actors, and to strengthen effectiveness, ownership, legitimacy, and accountability in planning and management processes (Agrawl and Ribot 1999; Ribot 2004; Mose 2007; Zachrisson 2009). As an important part of decentralization, we find ambitions for the inclusion of actors other than public administration and politicians, such as actors who to a great extent are affected by the management and/or may contribute knowledge and/or may ensure that special interests are given consideration. Inclusion is inherent in a broader governance concept of management and in recent decades government has increasingly become a shared responsibility between public authorities, private actors and civil society (Sandström, Hovik, and Falleth 2008; Lange *et al.* 2013; Hovik and Hongslo 2017). Also, there has been a significant trend toward a more dynamic approach to the integration of protection and development. The protection approach is no longer solely based on biological and ecological arguments, but also on a broader social-ecological perspective, including regional development (Mose 2007; Gambino and Peano 2015). Protected areas are influenced by their surroundings, and by the fact that humans are a crucial part of the ecosystems in such areas (Selman and Knight 2006; Plieninger and Bieling 2012).

The traditional hierarchical government structures are being challenged and changed by a complex network of different agencies in multilevel governance, with both a vertical shift in political power and a horizontal shift of responsibilities from governmental actors and/or authorities toward non-governmental actors (Eckerberg and Joas 2004). Thus, rather than concentrating discussions on the centralization–decentralization axis, it might prove more fruitful to discuss how the interaction between actors and the division of responsibility in the multilevel governance network could be played out. It would then be important to pay attention to the principles of *legitimacy*, the acceptance and justification of shared rules by the community concerning who is entitled to make rules and how authority itself is generated, and *accountability*, the extent to which a governing body is answerable to its constituency (downward) and to higher level authorities (upward) (Lockwood *et al.* 2010).

Even if common interests and agreements largely characterize the planning processes in mountain areas, in practice, small and seemingly insignificant conflicts of interest may create large and unnecessary problems if planning processes are poorly performed. In Norway, the most regular and comprehensive land use planning regulations are those related to the land use part of the municipal master plans at local management level and to the regional master plans at county management level, in both cases in accordance with the Planning and Building Act (hereafter abbreviated as PBA) of 2008. Furthermore, there are different protected area plans in accordance with the Nature Diversity Act (hereafter abbreviated as NDA) of 2009 at the national management level.

In this article, we use the case of Dovrefjell, a large mountain range in the center of Southern Norway, to (1) examine the different land use planning and management

processes in mountain areas, applied in accordance with the PBA and NDA, in recent decades, and (2) discuss how such land use planning and management processes might be improved for better handling of conflicts. Our purpose is to contribute to the discussion on land use planning and management in mountain areas with conflicting interests. The Norwegian setting has distinct particularities, but nevertheless considerable similarities with other European countries (Overvåg, Skjeggedal, and Sandström 2015).

2. Case and context

2.1. Dovrefjell

The study area at Dovrefjell spans three municipalities: Oppdal in Trøndelag County, and Lesja and Dovre in Oppland County (Figure 1). The municipalities of Lesja and Dovre are characterized by relatively few, and a decreasing number of, inhabitants, respectively 2,000 and 2,600 in 2,020, as well as very large land areas; on average 1 and 2 inhabitants per km² (Statistisk sentralbyrå 2020). Approximately 75% of the two municipalities' total land area is protected by different plans in accordance with the NDA (Dovre kommune 2020; Lesja kommune 2020). By contrast, Oppdal has 7,000 inhabitants, with on average 3 inhabitants per km², a slightly increasing population (Statistisk sentralbyrå 2020), and 55% of the municipal area is protected (Oppdal kommune 2020).

The wild reindeer herd in Dovrefjell is one of the few remaining wild reindeer herds in Europe (Røed *et al.* 2014). Traces of human subsistence linked to reindeer hunting in the area date back 9,000 years, and today the area is still a vital habitat for wild reindeer, which are of both cultural and ecological importance (Panzacchi *et al.* 2013). There are longstanding traditions for wild reindeer hunting for food supplies, but currently hunting is done just as much for recreational purposes and stock management (Daugstad, Svarstad, and Vistad 2006; Strand *et al.* 2013). Hunting is an essential element of local identity and culture, and a very important activity for a substantial share of the local inhabitants (Zahl-Thanem and Flemsaeter 2018, 33, 35).

Historically, Dovrefjell served a range of different purposes, from local to national interests. Over the years, the Dovrefjell landscape has been affected by agriculture, industrial activities relating to hydropower production and mining, with associated infrastructure in the form of gravel roads, power lines and landfills, and a firing range from 1959 to 2005. Snøheim tourist cabin, established in 1952 and taken over by the military in 1959, has been renovated and is back in the hands of the Norwegian Trekking Association (DNT) and currently attracts c.10,000 hikers during summer (Flemsaeter *et al.* 2019) (Figure 2). During recent decades, strong urbanization and a rising standard of living have led to Dovrefjell and other remote areas being opened for tourism and recreational use by a wider range of the population in Norway (Rønningen and Flemsaeter 2016). In turn, this trend has led to nature-based rural development and increased pressure on natural resources from recreational activities. Consequently, the landscapes of Dovrefjell currently mainly function as places for recreation, nature consumption and protection, although considerable parts are still used as grazing land, mainly for sheep.

2.2. Land use planning and management in Norway

The local government sector is strong and well-established in Norway. At both the municipal level and the county level elections are held for representatives on the

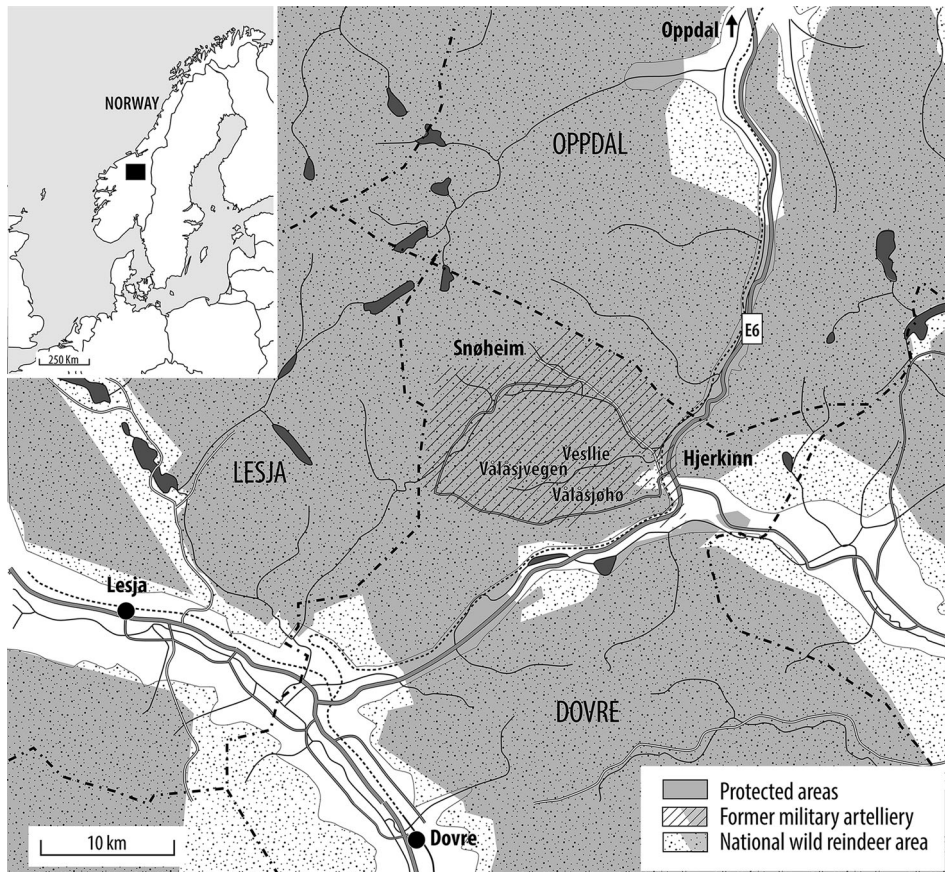


Figure 1. Location of the study area in Dovrefjell.

municipal councils and the county councils respectively. The central government, including agencies at the regional and local level, has the overriding authority and supervision of municipal and county municipal administration. The County Governor is the main representative at the regional level.

At the local level, the PBA has, since 1965, been applicable to the whole country and not just to built-up areas, as earlier (Table 1). Revisions in 1985 gave the municipalities the mandate to approve land use plans themselves, provided the authorities at county or national levels had no objections on the grounds of major regional or national interests. Today, if an objection is raised, a plan must be sent to the Ministry of Local Governance and Modernization for approval. The municipal land use plan regulates land use outside the built-up areas, except for the protected areas and activities within and between sectors such as agriculture, forestry and reindeer husbandry. Along with the social element and an implementation element, the land use element comprises the municipal masterplan (PBA 2008, Section 11-1). A least once in each four-year electoral term the municipals must approve a municipal planning strategy concerning strategic choices and an assessment of planning needs (PBA 2008, Section 10-1). That means, for example, that the land use element of the municipal master plan should be considered for revision every fourth year. The PBA has comprehensive regulations regarding organization and the performance of planning processes. In this



Figure 2. The road to Snøheim in Dovrefjell (looking north-west), with Snøhetta in the background. Photo: Vegard Gundersen *et al.* (2015).

respect, there are long traditions of cooperation at the local level between different actors and public management, as well as active participation by individuals and organizations.

Similarly, authorities at county level are required to prepare regional planning strategies (PBA 2008, Section 7-1), which may identify issues or themes for inclusion when preparing regional master plans for areas or themes. Such preparation of regional master plans can be ordered by the Ministry (PBA 2008, Section 8-1). Under the PBA, all regions should have a regional planning forum established by the regional planning authority (PBA 2008, Section 5-3). The main purpose is to coordinate national, regional and municipal interests in regional and municipal plans. Central government and affected regional bodies and municipalities should participate in the coordination.

At the national level, the 2009 NDA designates land for protection, mainly as national parks, protected landscapes, nature reserves, and habitat management areas. The total extension of protected areas in Norway has increased considerably in recent decades, from 6% of the total land area in 1992, when the new national plan for larger protected areas was approved (St.meld. nr. 62 1991–1992), to 17% in 2018 (Statistisk sentralbyrå 2018). Approximately 70% of all protected areas in Norway are located in mountain municipalities (Skjeggedal and Overvåg 2015).

Protected areas management in Norway, with its hierarchical structure and authorities mainly residing in national bodies such as the Ministry of Climate and Environment, the Norwegian Environment Agency, and the county governors, has to some extent changed in recent decades. In 2009, the Government launched a new model for the management of protected areas, still with a secretary employed by each county governor, although localized to one of the affected municipalities, preferably

Table 1. Management levels and land use plans in Norway.

Management level	Land use plans	Legal basis	Preparing of plans	Approval of plans	Management of plans
Local	Municipal master plan – land use element	Planning and Building Act, 2008	Municipality	Municipal council*	Municipality
Regional	Regional master plan	Planning and Building Act, 2008	County	County council*	County
National	National park/ Protected landscapes	Nature Diversity Act, 2009	County governor	Central government	Intermunicipal board/ County governor

Note:*Provided that affected central government, regional bodies or municipalities have not raised any objections (Planning and Building Act, Section 5-4, 8-4).

along with other professionals engaged in the protected areas. The Government also introduced an intermunicipal board of politicians from the relevant municipalities, county councils and, where applicable, the Sámi Parliament, which would be responsible for the management (Prop. 1 S 2009–2010). Then, the management of protected area plans is to a certain extent decentralized, but the preparation of new protected areas plans is still managed by the county governors.

3. Planning theory and practice

Our theoretical approach is mainly based on planning theory and developing an “arena model” related to land use planning. Hardly anyone would disagree that Banfield’s “ends and means in planning” model (Banfield 1973) is an unattainable ideal. Drawing inspirations from Simon’s “bounded rationality” (Simon 1947), Lindblom (1973) developed a theory of “disjointed incrementalism” that was more significant for praxis and the limitations of the instrumental approach, though still has a conceptual core of ends–means orientation.

“The communicative turn” in planning theory supposes that actors can achieve mutual understanding and consensus through dominance-free discourses (Healy 1993, 1997; Sager 1994, 2018; Forester 1999; Allmendinger and Tewdwr-Jones 2002; Skjeggedal 2005). However, planning is inescapably about conflicting interests and therefore learning to work effectively with conflicts can be the basis for a strong planning paradigm (Flyvbjerg and Richardson 2002). In practice, consensus-building processes inevitably lead to initiators excluding people, issues or outcomes to achieve their perceived ideal (Connelly and Richardson 2004). Communicative rationality supplements the instrumental, but is not a substitute for it. The main contribution of communicative rationality is to strengthen participation in planning processes. Arnstein’s classical ladder of empowerment (Arnstein 1969) classifies participation in steps, starting from manipulation and progressing to information and consultation, and then to citizen control, but does not cover the level of influence and design of participation processes (Fung 2006). Participation inevitably creates expectations about influence

and thereby leads to commitment to both the process managers and participants (Miljøverndepartementet 1991). Participation may strengthen the democratic process and input legitimacy, but not necessarily the concrete results and effectiveness and output legitimacy (Scharpf 1999).

Mouffe (1999) criticizes the Habermasian-inspired version of the liberal, deliberative democracy model based on consensus and has formulated an alternative model that she calls “agonistic pluralism”. The main question is not how to eliminate power but how to constitute forms of power that are compatible with democratic values: “The aim of democratic politics is to transform an ‘antagonism’ into ‘agonism’” (Mouffe 1999, 755). Conflicts must be considered as legitimate and any attempts to eliminate them through authoritarian consensus should be rejected. While knowing that there are not always rational solutions to conflicts, “adversaries nevertheless accept a set of rules according to which their conflict is going to be regulated.” (Mouffe 2013, 138–139). Hence, the question in planning is not just the possibility of consensus building, but rather its desirability (Davoudi 2018, 21–22).

Despite the different genealogies of the communicative model and the theory of agonism, Bond (2011) argues that there are commonalities, such as drawing on similar ethical stances by principles of reciprocity, equality and liberty. Planning is to work with dissensus but nevertheless reach some form of decision within a sphere criss-crossed by dissensus and contingency. Creating agonistic spaces requires being open to dissensus and embracing it in such a way that conflicts are seen as opportunities for communication and knowledge exchange in order to think differently and to understand the hegemonic relationships that structure decision-making in planning practices (Bond 2011, 176–179).

Mäntysalo, Balducci, and Kangasoja (2011) use the concept of “trading zone” as a crucial supplement to agonistic planning theory in its search for practical application. A trading zone approach focuses on the framework of exchange between different systems of meaning, enabling locally coordinated interaction for the development of local planning practices by consensus in a restricted zone where coordination is good enough. This argument is also used by Saporito (2015) in her “trading zone way” between conflict and consensus in order to provide a pragmatic and reflective rationality to help practitioners and policymakers to navigate the complexity of “garbage can” situations.

The “garbage can model” was launched by Cohen, March, and Olsen (1972) as an empirical model to understand decisions in political administrative systems that can be described as a meeting for independent streams of choice opportunities, problems, solutions, and participants. Thus, the organization of the streams with respect to how they are coupled or decoupled is a potentially important management tool (Olsen 1978, 90). The streams “may not so much be dumped into garbage cans, [...] as they meet, interact and transform one another, in ordinarily structured ritual performances.” (Forester 1999, 143). We claim that the empirical garbage can model can be reformulated as a normative “arena model”, as a trading zone for planning and management, focusing on problems, participants, knowledge/solutions, and results (Skjeggedal 1988). The arena model combines instrumental and communicative practices with agonistic approaches in a multilevel governance network. We use this arena model to structure our discussion in this article.

4. Methods

Our topics and purposes called for case study as the research method in order to study a phenomenon with the necessary depth and context for the ambition of understanding

other similar cases (Gerring 2004; Flyvbjerg 2006; Yin 2009). The Dovrefjell case was chosen mainly for pragmatic reasons, partly because of earlier similar studies, such as those by Daugstad, Svarstad, and Vistad (2006), Falleth and Hovik (2009) and Skjeggedal and Clemetsen (2018), but primarily because of the interdisciplinary research project, Horizon Snøhetta (2008–2018), which focused on the functional interplay of reindeer ecology, recreation, and local communities (Thomassen *et al.* 2009; Strand *et al.* 2013; Gundersen *et al.* 2015). The comprehensive methods used in Horizon Snøhetta, which comprised qualitative and quantitative data, enabled us to extract empirical data as a basis for our study of land use planning presented in this article.

Dovrefjell is probably not a typical case, but rather an extreme one. Nevertheless, it reflects many of the relevant planning issues that exist in mountain areas. As such, it serves as a clear-cut illustration of potential interests and conflicts in protected and adjacent mountain areas. For this article, we studied different documents regarding land use planning and management, such as municipal master plans and regional master plans in accordance with the PBL, protected area plans in accordance with the NDA, and documents from the formal management processes of the plans. The documents were analyzed from a thematic perspective, sorted and interpreted with respect to the key themes and the research purposes. In June 2018, we conducted personal semi-structured interviews with nine experienced and central individuals in planning and management processes. The interviewees comprised politicians and administrators at the municipal level (Dovre, Oppdal and Lesja) and county level (Oppland), an administrator for the County Governor of Oppland and the Norwegian Environment Agency, a national park manager at Dovrefjell-Sunndalsfjella National Park, the leader of Norwegian Wild Reindeer Center North, and a key representative of the Norwegian Trekking Association (DNT), based in Oslo.

5. Results

5.1. Land use plans and management levels

The description of the planning and management system for mountain areas in Section 2.2 shows there are many actors on different management levels with partly unclear and compound power relationships. The management structure is rather diffuse. In the following sections, we present relevant land use plans according to the management levels where the main political authority for the plans is located, well aware of the complexity of the situation and that the national government always has “the last word” in such planning processes (Bugge 2011, 181).

5.2. Local-level management

The current social element of the municipal master plan for Lesja in accordance with the PBA was approved in 2007 and the land use element in 2013. The social element underpins the importance of protection issues and the nature areas, local culture, cultural heritage, and cultural landscapes as fundamental to Lesja’s identity and attraction (Lesja Kommune 2007, 6). Sustainable management of the living areas for wild reindeer and protection of watercourse ecosystems are important premises for both environmental and land use issues in Lesja (Lesja Kommune 2007, 20). The protected areas are hardly mentioned in the municipal master plan and merely appear as zones subject

to restrictions in accordance with the NDA. This issue is commented on in the planning strategy for Lesja for the period 2016–2020 (Lesja Kommune 2016, 23):

Nevertheless, the municipality is not given a role in management of protected areas that is reasonable in relation to the large areas that are restricted and the strong professional competence situated in Lesja Municipality. The wild reindeer are a great resource for Lesja, for hunting, to maintain the cultural tradition and as an attraction for visitors. Nevertheless, the work on regional wild reindeer master plans in recent years has led to more focus on land use conflicts than on the possibilities for the local community.

The current social element of the municipal master plan for Dovre was approved in 2012 and the land use element in 2002. The social element contains specific aims about maintaining the gravel roads in the Hjerkin area, as well a sustainable wild reindeer stock (Dovre Kommune 2012, 47, 43). The land use element was put under revision in 2010 and as of April 2020 it had not been finished.

Oppdal Municipality approved its most recent social element of the municipal master plan in 2010 and the land use element in 2019. The slogan for the social element is “the good life in an attractive mountain village”. Apart from stating that the nature and cultural landscape are the main element in the experience of living or visiting Oppdal (Oppdal Kommune 2010, 7), descriptions of the protected areas are absent from the municipal master plan.

The PBA includes possibilities for intermunicipal planning cooperation when needed. Following up the decision in Parliament in 1999 to close the military firing range in Hjerkin, Lesja Municipality and Dovre Municipality prepared a common municipal land use plan for Hjerkin to clarify the framework for use, protection, and restoration priority, at the same time as the County Governor of Oppland made an assessment of areas to be protected in the future, in accordance with the NDA. The two plans raised the same demands for restoration of the area, but they were quite different with respect to the gravel roads. The County Governor of Oppland wanted to remove and restore all of the roads in the area, except for the first few kilometers of the Snøheim road, while the municipalities wanted to keep the Snøheim road, the road to Vesllie, and the Vålåsjøhøe road (Figure 1). All of the roads, especially the Vålåsjøhøe road, are used by farmers when herding and accessing the outfield grazing resources in Hjerkin. The main users of the Snøheim road are hikers, who access the DNT facilities and services. In 2005, the Ministry of Environment recommended that the Ministry of Defence should implement the restoration project in accordance with the County Governor of Oppland’s plan (Fylkesmannen i Oppland 2017).

When the County Governor of Oppland announced the start of the protection plan work for the former Hjerkin military firing range in 2013, both Lesja Municipality and Dovre Municipality wanted to clarify the land use by revising their intermunicipal plan. They prepared a planning programme for the process and circulated it for comments in late 2014. The County Governor of Oppland stopped the process by commenting: “it is unlikely that the national authorities will consider a plan for Hjerkin military firing range put forward by the PBA before the protection plan work is finished” (letter, 11 December 2014).

All three municipalities are well aware of the great value attributed to the mountains and protected areas, but the only way to highlight those issues in the municipal masterplan was as overall perspectives in the social element. The protected areas, namely c.55–75% of the total land area, are managed by the NDA and at national

level, not by the PBA. The power relationships are clearly illustrated by the County Governor's intervention to stop the preparation of the intermunicipal master plan.

5.3. Regional-level management

The work on the first regional master plan for Dovrefjell in accordance with the PBA started in 1995 as a parallel process to the protection plan. One of the main aims was to ensure the protection of the mountain ecosystems, with the wild reindeer as a keystone species. The plan was finally approved in 2002. A process to revise the plan started in the winter of 2004–2005 and the new regional master plan was approved by the four county councils in 2007, and finally approved by the Ministry of Environment in 2009.

A new revision of the regional master plan was started in 2013 as a regional master plan for the Snøhetta wild reindeer region, initiated by the Ministry of Environment. The new regional master plan had a two-sided aim: to combine the aim of local change and development with comprehensive management to secure the wild reindeer habitats. In total, 4 counties and 10 municipalities were involved in the comprehensive planning process, during which 35 meetings were held with different actors and there were two public hearings, one in winter 2014–2015 and one in autumn 2015. During the process, substantial comments on the regional plan were received from the Norwegian Environment Agency and the county governors, mainly concerning wild reindeer habitats. The four county councils approved the regional plan in 2016, but with some differences and not fully in accordance with the comments from national authorities. Therefore, the plan was sent to the Ministry of Local Government and Modernization for a final decision, which was taken in 2017, mainly in accordance with the approval of the county councils. The protected habitats for wild reindeer were reduced, but without any further assessments. Then, the County Governor of Oppland questioned the worth of a regional plan when it was still not able to prevent a negative trend of infrastructure development that hampered wild reindeer migrations and area use (interview, 22 June 2018). The success of the regional master plans for wild reindeer mountain areas was disputed, especially with regard to the implementation phase: “The plan confirmed national wild reindeer habitats, but industrial development came in the back. Can't see any results” (interview, local politician, 12 June 2018). Another local politician claimed that no one was responsible for the implementation (interview, 13 June 2018).

5.4. National-level management

Since 1974, a large part of Dovrefjell has been protected under the NDA, and in 2002, Dovrefjell National Park was considerably extended to form Dovrefjell-Sunndalsfjella National Park. Throughout the 2002 planning process, there was broad acceptance of the proposal for the national park, although organizations concerning agriculture, forestry and sheep husbandry were generally against all the proposed protected landscapes. They thought that the PBA was the most suitable policy instrument for the areas with summer farms and pastures (Miljøverndepartementet 2002, 7).

A further extension of the protected areas started in 2013 when the County Governor of Oppland announced the process for the protection plan work for the former Hjerkins military firing range. The County Governor of Oppland understood that

“there are considerable conflicts of interest in the area” (Fylkesmannen i Oppland 2013, 10). Therefore, broad participation from the municipalities, landowners, rights holders, users, interest organizations, and public agencies was organized and established as a reference group. Additionally, a coordinating contact committee with members drawn from the municipalities, the county, landowners, and the Norwegian Defence Estates Agency was established. The future status of the Snøheim road was handled as a separate process and had not been decided when the protection plan was ready for hearing in January 2017. Therefore, the hearing included two alternatives: Alternative 1 *without* and Alternative 2 *with* the Snøheim road, the Vålåsjørhøe road and the road to Vesllie. The comments received from the hearings were generally positive toward future protection of the area. Regarding the alternatives, the organizations and bodies representing nature and outdoor recreation interests preferred Alternative 1, while most of the others, including the County Governor of Oppland, recommended Alternative 2 (Klima- Og Miljødepartementet 2018, 19–20).

Nevertheless, the Norwegian Environment Agency, in its examination of the plan, changed the negotiated compromise concerning roads recommended by the County Governor (Alternative 2) and argued that the Vesllie road should be removed and the terrain restored, and that the Vålåsjørhøe road should end before it reached a vulnerable wetland area (Klima- Og Miljødepartementet 2018, 22–24). These changes provoked very strong negative reactions in the municipalities: “The environment agency is tragic” (interview, politician, 13 June 2018). Different actors were, in general, very satisfied with the County Governor of Oppland’s performance during the planning process (interviews, June 2018) but the satisfaction changed to frustration when the agreed results were changed in the conclusive phase. Finally, the Ministry of Climate and Environment supported the Norwegian Environment Agency’s recommendations, except for the shortening of the Vålåsjørhøe road through the wetland area. Despite the comprehensive participation process, many locals, especially those with grazing interests, still felt that the mountains had been occupied and “taken away” from them, first by the military and then by the national nature protection authorities (interview, politician, 13 June 2018).

The management of the approved protected areas differs in its organization compared with the planning processes. In 2003, the Ministry of Environment (since 2014, the Ministry of Climate and Environment) proposed a local management organization for the protected areas in Dovrefjell and three other protected areas as a trial arrangement. Dovrefjellrådet (Dovrefjell Council), which was composed of one politician and one administrator from each of the eight involved municipalities and the four counties, was given the authority to manage Dovrefjell-Sunndalsfjella National Park, while the management of the other protected areas was delegated to the municipalities, with Dovrefjellrådet as a consultative body. The aim was coordinated management of the protected areas in connection with the surrounding areas managed in accordance with the PBA. Gradually, Dovrefjellrådet became engaged in the development of sustainable tourism through European cooperation and national added value programmes.

The trial period of local management ended in 2010, when Dovrefjellrådet was replaced by the new National Park Board, in accordance with the new management model for protected areas, an intermunicipal board of local politicians. As a purely management body under the NDA, the new board had authority over all of the protected areas, not just the national park. Thus, the previously much broader perspective of Dovrefjellrådet, concerning areas and activities, became considerably narrower.

Many local politicians still regretted the change (interview, local politician, 12 June 2018). The secretary of the new National Park Board, two national park managers, is established at a “management node” in Hjerkinn, and co-located with other nature management organizations, such as the secretary of Rondane National Park, the Norwegian Wild Reindeer Center North, the Norwegian Nature Inspectorate (SNO), and the Pilgrim Center Dovrefjell. Hjerkinn is located in the center of Dovrefjell-Sunndalsfjella National Park, but does not have a permanent settlement and the road distances to the municipal centers Oppdal, Dovre and Lesja are respectively 48 km, 44 km and 47 km (Figure 1). The two national park managers have a significant number of single cases to consider, mainly applications for different dispensations from the protected areas regulations. Hence, they have very little time for planning activities. A management plan was approved in 2006, and the revision process had already been decided by the National Park Board in 2014, but as of April 2020 it had not yet really started. In accordance with the protection regulation, an advisory committee should be established for the management of the protected areas. The committee should have 25 members recruited from outdoor recreation and environment protection interests, wild reindeer management, forestry, agriculture, tourism, waterpower, and second home associations. The purpose is both to provide information about, and to contribute to, the protected area management. It marks an attempt to include different interests in the management, but the advisory committee has functioned only to a limited extent and not as a common arena (interviews, June 2018). One reason is that the national park secretary lacks capacity to run the board. Another reason for the limited function may be the size of the advisory committee, as “too big, becomes a seminar, instead of a meeting” (interview, Norwegian Trekking Association (DNT) representative, 15 June 2018).

6. Discussion

6.1. Examination of the planning processes

6.1.1. Still an instrumental and top-down planning approach

In this section we discuss the first purpose of this article: to examine the different land use planning processes in mountain areas, applied in accordance with the PBA and NDA, in recent decades. The basis is the presented results in Section 5 and the theoretical elaborations of the arena model in Section 3. We emphasize the chosen approach to planning processes and conflicts, as well as the use of the arenas.

Within the complicated and fragmented system of plans for Dovrefjell, an instrumental planning approach seems to have been dominant, related to both the PBA and the NDA. We identified a strong but unspoken belief in the management of a hierarchical and rather static system, in which plans and decisions build on the level above and give directions to the level below. The ends–means orientation is very clear. The emergence of multilevel governance, which did not substitute the hierarchy, but largely supplemented it, seemingly received little attention. Included in this instrumental perception was an increasing acceptance of broad participation in the planning processes, but with little awareness of the implications of such participation, both regarding implementation of the planning processes and the substantive results. In practical planning, it seems that the “communicative turn” implied participation up to the level of information and consultation on Arnstein’s ladder of participation (Arnstein 1969). The main ambition was to increase participation by different actor groups, but with little

awareness of how the communication and dialogue should be organized and what kind of influence the participation could create (cf. Fung 2006). The model was still instrumental, although bounded, but there was little awareness of its limitations in practical use and necessary adjustments. The planning processes were time-consuming and partially overlapping; many actors had to participate repeatedly in more or less parallel planning processes at local, regional and national level. A top-down decision system under the NDA weakened the local legitimacy, whereas the regional master plan instrument in the PBA created comprehensive processes with questionable results and legitimacy.

One example of the instrumental approach to planning in Dovrefjell is the last phase of the protection plan for the Hjerkin area. Future use of the gravel roads within the decommissioned military firing range in Hjerkin posed a great challenge in the protection plan process. The conflicts involved the production–recreation conflict dimension regarding protection and use and were also inherent in recreation activity concerning access by road to the protected and recreational areas. There were also local–national conflict dimensions regarding the level of management authority and the fact that the Snøheim cabin is owned by the DNT, based in Oslo, which caused local reactions, such as “townspeople come and make themselves free” (interview, Norwegian Trekking Association (DNT) representative, 15 June 2018). During the period in which Hjerkin was an active military firing range, the roads were also used for civil purposes, mainly recreational, but were also an important element in the management of grazing sheep. From the start of the planning process for the Hjerkin area, it was clear that local users want to keep the roads, while the protection authorities wanted to restore them back to nature.

According to the management regulations specified in the NDA, the planning process for protected areas is not finished by the recommendation from the County Governor to the Norwegian Environment Agency. Two further steps are necessary at the national level: a subject control from the Norwegian Environment Agency followed by a final check, including clarifications by the Ministry of Climate and Environment together with other ministries. As we have described in Section 5.4, this process at national level resulted in changes in the negotiated solutions in the protection plan, mainly concerning roads. The effects of these changes may be disputed, but nevertheless the roads in question have been the subject of conflict since the protection process for the Hjerkin area started in the early 2000s. The final changes create challenges and may ultimately weaken the outcome legitimacy of the planning process.

Another example of the instrumental approach to planning in Dovrefjell is the most recent regional master plan for wild reindeer areas, which has very ambitious aims. The mapping of clear and agreed boundaries for the wild reindeer habitats, with their great variations throughout the year and between years, is very demanding. In accordance with the regional master plans, this issue should be combined with ensuring that the local communities in the vicinity of the areas occupied by wild reindeer are given possibilities for industrial and rural development, which is a very comprehensive and complicated task. Both these issues are difficult to define in clear terms and involve many actors with different and conflicting interests. Currently, the ambition was to combine them. Although there are different approaches to the production–recreation dimension between most local actors and national nature management authorities, they have a common interest in protecting the wild reindeer habitats (Kaltenborn *et al.* 2015). The differences and conflicts are significantly greater

concerning local development. One consequence is a resource-demanding and time-consuming planning process, finally clarifying borders for wild reindeer habitats, but with uncertain and limited results for local development. The regional plans are not legally binding, and the county authorities have very few other means for implementation. The effects will not become visible until the regional plans are incorporated into the legally binding municipal land use plans. Then, there will be possibilities for replay in new processes and new and unforeseen questions may emerge.

Relationships between planning processes and the substantive results are a major challenge. Participating processes create expectations that something can be achieved. Such participation is mainly in the form of the provision of information and discussions, which in the studied case was mainly regarded as positive by the locals. Nevertheless, participation creates expectations of influence, which might be difficult to fulfill in regional plans that lack policy instruments and are only to a small extent followed-up by actions. The new national boundaries for wild reindeer habitats are almost the same as the existing ones, with only some minor extensions. We found that the output legitimacy of the regional plans was rather weak; an inherent instrumental-based conviction about what was possible to achieve by qualified planning processes had failed.

6.1.2. Participation not facing conflicts

The two examples presented in the preceding [section \(6.1.1\)](#) show that, to a certain extent, the authorities were aware of the conflicts but lacked ways to manage them. In the most recent protection plan process for Hjerking in 2013, the County Governor was aware of the conflicts, especially concerning roads, and perceived the situation as a premise for further dialogue and open discussion on the roads' status (interview, County Governor of Oppland, 22 June 2018). The conflicts were registered and to a certain degree illuminated. Often such conflicts almost disappear due to the provision of information and clarifying discussions to achieve consensus. However, some conflicts cannot be eliminated by information and negotiation; they have to be accepted and, in a way, regulated (Mouffe 2013). There was little awareness of achievement of accepted regulations in the instrumental planning model in the Dovrefjell case, even when modified by communicative approaches, and limited attention was paid to efforts to convert antagonistic conflicts to an agonistic acceptance of disagreements.

In the regional master plan, the conflicts about integrated use and protection in the buffer zones surrounding the wild reindeer habitats and other protected areas' interests were not solved by consensus, but rather by exclusion of local development interests, as outlined by Connelly and Richardson (2004) and similar to what Lundberg, Richardson, and Hongslo (2019) found in another regional planning processes for wild reindeer mountain areas. The aim of reaching consensus limited the scope of planning and led to the exclusion of difficult issues and opposing views.

6.1.3. No common arenas for land use planning and management

The municipal master plans in all three case municipalities hardly mention mountain areas in general or protected areas in particular, despite the fact that the areas comprise 55–75% of the municipalities' total land area. In the land use part of the municipal master plans, the mention of protected areas as “Zones requiring special considerations” and zones subject to restrictions on another legal basis (PBA 2008,

Section 11-8, d), is merely information. This is a paradox, given the awareness in recent decades of the importance of considering the protected and adjacent areas together and of using the protected areas and their status in local industrial development. The municipalities were aware of these questions and especially the boundary areas were considered important (interview, local politician, 13 June 2018). This important connection is underlined in the Norwegian Environment Agency's recently revised criteria for "National Park Municipalities". The agency argues for a "seamless" crossing between areas within and outside the protected areas, and one of three categories of criteria for National Park Municipalities is connected to the municipal master plans. It requires a municipality to describe its responsibilities, aims, strategies, and actions as a National Park Municipality in both the social element and the land use element of the municipal master plan, in addition to the implementation element (Miljødirektoratet 2017).

Land use planning and management in Dovrefjell faces many different challenges that involve many different actors on different management levels and by different regimes. As our description in Section 5 shows, it is striking how complex and fragmented this system has become and how new tasks or approaches have been met by establishing new bodies instead of trying to change the responsibilities and activities of existing bodies. An example is the inter-municipal national park boards of local politicians, which is a new construction, with a new secretary located in Hjerking, close to the protected areas in Dovrefjell-Sundallsfjella National Park, but at long distances from residential areas and public management bodies.

Clearly, it is reasonable to coordinate the management of protected and adjacent areas. In the PBA, regional master plans are not readily apparent as a tool to fulfill this aim. We found that the success of the regional master plan for Dovrefjell-Sundallsfjella National Park was disputed. Bråtå *et al.* (2014) show that regional master plans for wild reindeer mountains areas are likely to become primarily wild reindeer plans and that their contribution to industrial and regional development is limited. Singaas (2016, 58) found that the regional master plan did not contribute to the coordination of the PBA and NDA management of protected and adjacent areas at all, but rather strengthened the conflicts. In general, there are very few examples of well-functioning regional master plans in Norway (From and Stava 1983; Falleth and Johnsen 1996; Skjeggedal 2005; Singaas 2016; Hanssen, Hofstad, and Higdem 2018). There may be several different explanations, but the most simple and fundamental one is that the counties and their regional master plan have very few means with which to implement the plans. Hence, it is challenging to put into practice the Norwegian Environment Agency's idea of seamless management for areas within and outside protected areas without institutional changes.

Through approval of protected areas in accordance with the NDA, the land use part of the municipal master plan, which as far back as 1965 has provided the framework for management of mountain areas under the PBA, has lost the authority to determine the land use of such areas. This loss of responsibility has left the protected mountain areas outside the municipal planning and management system, and thus far removed from a seamless management approach. The only organized authority body that has some elements of a functioning common arena for the main challenges in Dovrefjell is the advisory board for the national park. The advisory board has most of the relevant actors as members, but as of June 2018 it was still not functioning very well (interviews, June 2018).

6.2. Potentials for improving the planning system

6.2.1. Toward common arenas and a coherent planning and management system

In this section, we discuss the second purpose of the article: how, in accordance with the PBA and NDA, the land use and management processes in mountain areas might be improved for the better handling of conflicts. The purpose is primarily to emphasize some important issues for further discussion and hopefully new trials to develop, test and evaluate practical solutions. We use the concept of common arenas as trading zones in planning and agonistic approaches to deal with conflicting interests, as elaborated upon in Section 3 and Section 5, and discuss (1) improving the multilevel organization of land use planning by revitalizing the regional planning forum as an arena for municipal, regional and national planning, and (2) improving the participation and integration in land use planning by establishing a new, common arena.

6.2.2. Regional planning forum as an arena for coordinated municipal and regional planning

The regional planning forums' roots have been in the county councils' responsibility for guiding the municipalities in planning activities for decades and were formalized in the PBA of 2008. There are wide variations in the organization and functioning of the regional planning forums (Langseth and Nilsen 2015). Today, they contribute only to a limited extent to the coordination of interests and reduction in the number of obligations to municipal land use plans (Riksrevisjonen 2018, 10). We claim that the regional planning forums have a substantial unreleased potential as multilevel governance bodies. Their activities could include coordination between municipalities and the land use parts of the municipal master plans. In that sense, the regional planning forums could become an even stronger formal management tool than regional master plans that are not functioning well and could contribute to the division of power in the multilevel governance network, ensuring both legitimacy and accountability.

One premise for such coordination is that the processes for the municipal master plans are to some extent in the same phase. The current PBA requires the municipalities every fourth year, through the municipal planning strategy, to decide whether the municipal master plan should be revised (PBA 2008, Section 10-1). We argue that such a revision, which would be more or less comprehensive, should be mandatory, and then secure the possibilities for regional coordination.

Affected central government and regional bodies may raise objections regarding the land use element of the municipal master plan (PBA 2008, Section 5-4). The raising of objections is occasionally criticized by the municipalities for being too strict, and by national sectoral bodies for not being strict enough. Nevertheless, we see potential in developing objections to a much more effective multilevel management tool for use in participatory planning processes and discussed in the regional planning forums for coordination between municipalities. Through cooperation between the county councils and the county governors, the regional planning forums could function not only in accordance with the PBA but also in accordance with the NDA.

6.2.3. A common arena for land use planning

One substantial alternative to change and improve the existing system for land use planning could be to move the protected area section from the NDA to the PBA as land use purposes in the land use element of the municipal master plans (Skjeggedal, Overvåg, and Riseth 2016). Then, all land use planning, including main roads, which were incorporated in 1989, would be gathered in the PBA. In practice, this would mean going back to the situation before the areas were protected through the NDA. This idea is not new: many municipalities have proposed the solution in different protection plan processes. The proposal was also discussed in the revisions of both the PBA (NOU 2003:14 2003:14 2003, 212) and the NDA (NOU 2004:28 2004:28 2004, 204), but dismissed in both cases. The main argument was that the NDA gave the protection areas a national and permanent status, whereas under the PBA the municipalities might consider revisions of the land use as part of their municipal master plan when they found it necessary.

Incorporation of protected areas in the PBA would contribute to decentralize and integrate land use planning and management and would strengthen the possibilities for broad participation. In Norway, the authority to make decisions on the management of protected areas is delegated to an intermunicipal protection area board, but formal responsibility is still held at the national level by the county governor. The politicians on the protection boards are responsible first and foremost to the state and to a lesser extent to their local electors. Their accountability is more upwards to the state, than downwards to the local people (Hongslo *et al.* 2016). Hence, the board members have to “put away the municipal hat” in the protection board discussions (interview, local politician 12 June 2018). The managers of protection areas are positioned at the local level in a natural management node and seem to have rather weak contacts with the municipalities and with local development and industry. Many actors at all three management levels are involved, the funding is divided, and the management is not time and cost-effective (Riksrevisjonen 2014).

Integrated land use planning is especially important in the buffer zones between protected areas and other areas, where we found conflicts that needed to be resolved by comprehensive processes, such as in the regional master plans for wild reindeer mountain areas. In situations with more fundamental disagreements between different actors, it is important to establish a constructive process to deal with the conflicts. It is necessary both to be able to work efficiently with consensual issues, which are most of them, and to be able to find acceptable solutions in cases when the conflicts are major and fundamental. To include the protected area section in the NDA in the PBA could have the potential to create a more uniform framework for all land use management and, thereby, to contribute to the development of a common arena within all land use planning in mountain areas. The protected area regulations could be revised to include regional development as a specific purpose in addition to protection, as done in many other countries (Barker and Stockdale 2008; Getzner *et al.* 2014; Hovik and Hongslo 2017). Then, nature protection management staff could cooperate, and have knowledge exchanges, with actors who represent other interests and knowledge traditions, such as the social sciences, in addition to competence in nature and biology.

According to Mouffe (1999), the potential to transform “antagonism” into “agonism” could be better in a municipal governed process between “adversaries” than in processes governed by the county governors, which are inevitably embedded in hierarchical national–local power relationships. The conflicts could more easily be faced

and discussed already at the start of the processes. Regardless, there is no easy and fast track to agonism. The process will be time consuming, probably longer than that necessary for consensus, but possibly more permanent. Agonism presupposes trust and justice. Participation in itself is not sufficient. Power relationships and the level of influence must be communicated, and the process must be expediently organized. We claim that the experiences from the Horizon Snøhetta project could be of interest. Horizon Snøhetta's broad perspective, which integrated nature and society, brought different actors together in a common discussion, and developed new knowledge about wild reindeer, hiking and society. During the project period, the communication between the actors changed from a mainly conflict-oriented debate to a much more respectful and knowledge-based dialogue (interviews, June 2018). A local politician stated: "Horizon Snøhetta has been very fundamental, brought us facts" (interview, 13 June 2018). The purpose of the meetings was not consensus, but rather a common understanding of the situation, with different assumptions and interests (Strand *et al.* 2013). These experiences should be tested and developed in ordinary planning processes, using the arena model to organize and combine problems, participants, and solutions/knowledge.

7. Conclusions

Our examination of the land use planning and management processes in Dovrefjell in recent decades shows a very complex and fragmented system of plans, processes and actors at different management levels. We found that the planning approaches were performed in the shadow of instrumentalism and hierarchy. In practice, a top-down and instrumental planning approach was still dominant. The communicative turn had increased participation in the planning processes, but had to a small extent contributed to the management of conflicts and the substantive issues of planning.

When the perceptions of being beyond instrumentalism are prevalent, there is little awareness of the limitations of the nevertheless needed instrumental approach in planning and the necessary adjustments that have to be taken. The conflicts are registered and to a certain extent illuminated and discussed, hopefully to achieve consensus. Then, the challenge is conflicts which cannot be agreed, and one must try to find acceptable rules for how the conflicts can be regulated. Participation to a small extent faces the inevitable expectations of influence, and striving for consensus seems to hamper the possibility of transferring antagonistic conflicts to agonistic ones. Few common arenas exist for land use planning and management in mountain areas. The municipal master plans under the PBA are, except for some general formulations, without any content relating to the protected areas, even though such areas comprise up to 75% of the mountain municipalities' total land area. These areas are managed in accordance with the NDA by an intermunicipal board of local politicians and managers employed by the county governor and located in nature management nodes. The possibilities for integrated use and protection management are thus limited. Regional master plans in accordance with the PBA and managed by the counties are not legally binding and have the tendency to be time and resource-binding processes with sparse results, mainly due to the lack of means.

We have discussed two principal approaches that should be considered when working toward a simpler and more coherent planning and management system for land use in mountain areas. The first approach is to improve the multilevel organization of land

use planning by revitalizing regional planning forums as arenas for municipal, regional and national planning. The second approach is to improve the participation and integration of different interests in land use planning by establishing a new, common arena at local level by moving the protected area section from the NDA to the PBA as land use purposes in the land use element of the municipal master plans. With respect to the two approaches, our purpose is primarily to emphasize some important issues for further discussion and hopefully new trials to develop, test and evaluate practical solutions. In the future management of valued mountain areas, it will be vital to establish common arenas as trading zones for coordinated municipal, regional and national planning and management, combining instrumental and communicative practices with agonistic approaches in a multilevel governance network, and focusing on substantive issues as well as the processes.

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References

- Agrawl, A., and J. Ribot. 1999. "Accountability in Decentralization: A Framework with South Asian and West African Cases." *Journal of Developing Areas* 33 (4): 473–502.
- Allmendinger, P., and M. Tewdwr-Jones, eds. 2002. *Planning Futures: New Directions for Planning Theory*. London: Routledge.
- Arnesen, T., K. Overvåg, E. Glørsen, C. Schurman, and Ø. Rise. 2010. *Fjellområder og Fjellkommuner i Sør-Norge*. ØF-rapport 08/2010. Lillehammer: Østlandsforskning.
- Arnstein, S. 1969. "A Ladder of Citizen Participation." *Journal of the American Institute of Planners* 35 (4): 216–224. doi:10.1080/01944366908977225.
- Banfield, E. 1973. "Ends and Means in Planning." In *A Reader in Planning Theory*, edited by A. Faludi, 139–149. Oxford: Pergamon Press.
- Barker, A., and A. Stockdale. 2008. "Out of the Wilderness? Achieving Sustainable Development Within Scottish National Parks." *Journal of Environmental Management* 88 (1): 181–193. doi:10.1016/j.jenvman.2007.04.007.
- Bond, S. 2011. "Negotiating a 'Democratic Ethos': Moving Beyond the Agonistic – Communicative Divide." *Planning Theory* 10 (2): 161–186. doi:10.1177/1473095210383081.
- Bråttå, H. O., B. Ericsson, E. Reimers, and T. Skjeggedal. 2014. *Regionale Planer for Bruk og Vern av Villrein fjellene: Evaluering av Prosess og Planer*. ØF-rapport 2/2014. Lillehammer: Østlandsforskning.
- Bugge, H. C. 2011. *Laerebok i Miljøforvaltningsrett*. 3rd ed. Oslo: Universitetsforlaget.
- Cohen, M., J. March, and J. Olsen. 1972. "A Garbage Can Model of Organizational Choice." *Administrative Science Quarterly* 17 (1): 1–25. doi:10.2307/2392088.

- Connelly, Stephen, and Tim Richardson. 2004. "Exclusion: The Necessary Difference Between Ideal and Practical Consensus." *Journal of Environmental Planning and Management* 47 (1): 3–17. doi:10.1080/0964056042000189772.
- Daugstad, K., H. Svarstad, and O.I. Vistad. 2006. "A Case of Conflicts in Conservation: Two Trends or a Three-Dimensional Complexity?" *Landscape Research* 31 (1): 1–19. doi:10.1080/01426390500448450.
- Davoudi, S. 2018. "Spatial Planning: The Promised Land or Rolled-Out Neoliberalism?" In *The Routledge Handbook of Planning Theory*, edited by M. Gunder, A. Mandanipour, and V. Watson, 15–27. New York: Routledge.
- Eckerberg, K., and M. Joas. 2004. "Multi-Level Governance: A Concept under Stress?" *Local Environment* 9 (5): 405–412. doi:10.1080/1354983042000255315.
- Falleth, E. I., and V. Johnsen. 1996. *Samordning Eller Retorikk: Evaluering av Fylkesplanene 1996–1999*. NIBR-rapport 1996:20. Oslo: Norsk institutt for by- og regionforskning.
- Falleth, E., and S. Hovik. 2009. *Lokal Forvaltning av Store Verneområder: Erfaringer Fra Fire Forsøk*. NIBR-rapport 2008:11. Oslo: Norsk institutt for by- og regionforskning.
- Flemsaeter, F., V. Gundersen, K. Rønningen, and O. O. Strand. 2019. "The Beat of the Mountain: A Transdisciplinary Rhythmanalysis of Temporal Landscapes." *Landscape Research* 44 (8): 937–951. doi:10.1080/01426397.2018.1535652.
- Flyvbjerg, B. 2006. "Five Misunderstandings about Case-Study Research." *Qualitative Inquiry* 12 (2): 219–245. doi:10.1177/1077800405284363.
- Flyvbjerg, B., and T. Richardson. 2002. "Planning and Foucault: In Search of the Dark Side of Planning Theory." In *Planning Futures: New Directions for Planning Theory*, edited by P. Allmendinger, and M. Tewdwr-Jones, 44–62. London: Routledge.
- Forester, J. 1999. *The Deliberative Practitioner*. Cambridge, MA: Massachusetts Institute of Technology.
- From, J., and P. Stava. 1983. *Fylkesplanlegging: Deltaking, Samordning, Iverksetting*. NIBR-rapport 1983:7. Oslo: Norsk institutt for by- og regionforskning.
- Fung, A. 2006. "Varieties of Participation in Complex Governance." *Public Administration Review* 66 (S1): 66–75. doi:10.1111/j.1540-6210.2006.00667.x.
- Fylkesmannen i Oppland. 2013. *Vern av Tidligere Hjerkind Skytefelt: Melding om Oppstart av Verneplanarbeid*. Lillehammer: Fylkesmannen i Oppland.
- Fylkesmannen i Oppland. 2017. *Vern av Tidligere Hjerkind Skytefelt: Verneplan: Høringsdokument*. Lillehammer: Fylkesmannen i Oppland.
- Gambino, R., and A. Peano, eds. 2015. *Nature Policies and Landscape Policies: Towards an Alliance*. Cham: Springer.
- Gerring, J. 2004. "What is a Case Study and What is It Good for?" *American Political Science Review* 98 (2): 341–354. doi:10.1017/S0003055404001182.
- Getzner, Michael, Marte Lange Vik, Eivind Brendehaug, and Bernard Lane. 2014. "Governance and Management Strategies in National Parks: Implications for Sustainable Regional Development." *International Journal of Sustainable Society* 6 (1/2): 82–101. doi:10.1504/IJSSOC.2014.057891.
- Gundersen, V., M. Mehmetoglu, O. I. Vistad, and O. Andersen. 2015. "Linking Visitor Motivation with Attitude Towards Management Restrictions on Use in a National Park." *Journal of Outdoor Recreation and Tourism* 9: 77–86. doi:10.1016/j.jort.2015.04.004.
- Hanssen, G. S., H. Hofstad, and U. Higdem. 2018. "Regional Plan." In *Plan- og Bygningsloven -Fungerer Loven Etter Intenjonene?* edited by G. S. Hanssen, and Nis Aarsaether, 119–138. Oslo: Universitetsforlaget.
- Healy, P. 1993. "Planning Through Debate: The Communicative Turn in Planning Theory." In *The Argumentative Turn in Policy Analysis and Planning*, edited by F. Fisher, and J. Forester, 233–253. Durham, NC: Duke University Press.
- Healy, P. 1997. *Collaborative Planning: Shaping Places in Fragmented Societies*. Houndmills: Macmillian.
- Hongslo, E., S. Hovik, A. Zachrisson, and A. K. Lundberg. 2016. "Decentralization of Conservation Management in Norway and Sweden: Different Translations of an International Trend." *Society & Natural Resources* 29 (8): 998–1014. doi:10.1080/08941920.2015.1086456.
- Hovik, S., and E. Hongslo. 2017. "Balancing Local Interests and National Conservation Obligations in Nature Protection: The Case of Local Management Boards in Norway."

- Journal of Environmental Planning and Management* 60 (4): 708–724. doi:10.1080/09640568.2016.1176556.
- Kaltenborn, B. P., E. Hongslo, V. Gundersen, and O. Andersen. 2015. “Public Perceptions of Planning Objectives for Regional Level Management of Wild Reindeer in Norway.” *Journal of Environmental Planning and Management* 58 (5): 819–836. doi:10.1080/09640568.2014.898204.
- Kommune, Dovre. 2012. *Kommuneplan for Dovre 2012–2022*. Dovre: Dovre kommune.
- Kommune, Dovre. 2020. “Dovre kommune.” <https://www.dovre.kommune.no>
- Kommune, Lesja. 2007. *Lesja Kommuneplan 2007–2020*. Lesja: Lesja kommune.
- Kommune, Lesja. 2016. *Planstrategi for Lesja Kommune 2016–2020*. Lesja: Lesja kommune.
- Kommune, Lesja. 2020. “Lesja kommune.” <https://www.lesja.kommune.no>
- Kommune, Oppdal. 2010. *Kommuneplanens Samfunnsdel 2010–2025*. Oppdal: Oppdal kommune.
- Kommune, Oppdal. 2020. “Oppdal kommune.” <https://www.oppdal.kommune.no>.
- Lange, Philipp, Peter P.J. Driessen, Alexandra Sauer, Basil Bornemann, and Paul Burger. 2013. “Governing Towards Sustainability: Conceptualizing Models of Governance.” *Journal of Environmental Policy & Planning* 15 (3): 403–425. doi:10.1080/1523908X.2013.769414.
- Langseth, M., and J. K. Nilsen. 2015. *Evaluering av Regionalt Planforum*. Oslo: Nivi Analyse.
- Lindblom, C. E. 1973. “The Science of ‘Muddling Through.’” In *A Reader in Planning Theory*, edited by A. Faludi, 151–169. Oxford: Pergamon Press.
- Lockwood, M., J. Davidson, A. Curtis, E. Stratford, and R. Griffith. 2010. “Governance Principles for Nature Resource Management.” *Society & Natural Resources* 23 (10): 986–1001. doi:10.1080/08941920802178214.
- Lundberg, A. K., T. Richardson, and E. Hongslo. 2019. “The Consequences of Avoiding Conflict: Lessons from Conservation Planning for Europe’s Last Wild Reindeer.” *Journal of Environmental Planning and Management* 62 (2): 266–285. doi:10.1080/09640568.2017.1409197.
- Mäntysalo, Raine, Alessandro Balducci, and Jonna Kangasoja. 2011. “Planning as Agonistic Communication in a Trading Zone: Re-Examining Lindblom’s Partisan Mutual Adjustment.” *Planning Theory* 10 (3): 257–272. doi:10.1177/1473095210397147.
- Miljødirektoratet. 2017. “Kriterier for nasjonalparkkommuner for å være aktører under merkenavn Norges nasjonalparker.” <https://www.miljodirektoratet.no/ansvarsomrader/vernet-natur/nasjonalparkkommuner-og-nasjonalparklandsbyer>
- Miljøverndepartementet. 1991. *Deltakelse og Innflytelse – om Medvirkning i Kommunal Planlegging. T-862*. Oslo: Miljøverndepartementet.
- Miljøverndepartementet. 2002. *Verneplan for Dovrefjell Med Utvidelse av Dovrefjell Nasjonalpark (nå Dovrefjell – Sunndalsfjella Nasjonalpark) m.m.* Kronprinsregentens resolusjon 3. mai 2002. Oslo: Miljøverndepartementet.
- Mose, I., ed. 2007. *Protected Areas and Regional Development in Europe: Towards a New Model for the 21st Century*. Aldershot: Ashgate.
- Mouffe, C. 1999. “Deliberative Democracy or Agonistic Pluralism?” *Social Research* 66 (3): 745–758.
- Mouffe, C. 2013. *Agonistics: Thinking the World Politically*. London: Verso.
- NOU 2003:14. 2003. *Bedre Kommunal og Regional Planlegging Etter Plan- og Bygningsloven II. Planlovutvalgets Utredning Med Lovforslag*. Oslo: Miljøverndepartementet.
- NOU 2004:28. 2004. *Lov om Bevaring av Natur, Landskap og Biologisk Mangfold (Naturmangfoldloven)*. Oslo: Miljøverndepartementet.
- Og Miljødepartementet, Klima. 2018. *Utvidelse av Dovrefjell-Sunndalsfjell Nasjonalpark, m.m. Kongelig Resolusjon 20. april 2018*. Oslo: Klima- og miljødepartementet.
- Olsen, J. 1978. “Folkestyre, Byråkrati og Korporatisme: Skisse av et Organisasjonsteoretisk Perspektiv.” In *Politisk Organisering*, edited by J. P. Olsen, 13–114. Oslo: Universitetsforlaget.
- Overvåg, K., T. Skjeggedal, and C. Sandström. 2015. “Nasjonalparkforvaltning i Norge i Lys av Europeiske Modeller.” In *Fjellbygd Eller Feriefjell?* edited by T. Skjeggedal, and K. Overvåg, 203–224. Bergen: Fagbokforlaget.
- Panzacchi, M., B. Van Moorter, P. Jordhøy, and O. Strand. 2013. “Learning from the Past to Predict the Future: Modeling Archaeological Findings and GPS Data to Quantify Reindeer

- Sensitivity to Anthropogenic Disturbance in Norway.” *Landscape Ecology* 28 (5): 847–859. doi:10.1007/s10980-012-9793-5.
- Perkins, H. C. 2006. “Commodification: Re-Resourcing Rural Areas.” In *Handbook of Rural Studies*, edited by P. Cloke, T. Marsden, and P. H. Mooney, 243–257. London: SAGE.
- Plieninger, T., and C. Bieling. 2012. “Connecting Cultural Landscapes to Resilience.” In *Resilience and the Cultural Landscape: Understanding and Managing Change in Human Shaped Environments*, edited by T. Plieninger, and C. Bieling, 3–26. Cambridge: Cambridge University Press.
- Prop. 1 S. 2009–2010. *For Budsjettåret 2010 – Utgiftskapittel: 1400–1474 og 2465 Inntektskapittel: 4400–4472 og 5578*. Oslo: Miljøverndepartementet.
- Ribot, J. C. 2004. *Waiting for Democracy: The Politics of Choice in Natural Resource Decentralization*. Washington, DC: World Resource Institute.
- Riksrevisjonen. 2014. *Riksrevisjonens Undersøking av Forvaltninga av Nasjonalparker*. Riksrevisjonens administrative rapport nr.1. Oslo: Riksrevisjonen.
- Riksrevisjonen. 2018. *Riksrevisjonens undersøkelse av behandling av innsigelser i plansaker*. Dokument 3:7 (2018–2019). <https://stortinget.no/no/Saker-og-publikasjoner/Publikasjoner/Dokumentserien/2018-2019/dok3-201819/dok3-201819-007/>.
- Røed, K. H., G. Bjørnstad, Ø. Flagstad, H. Haanes, A. K. Hufthammer, P. Jordhøy, and J. Rosvold. 2014. “Ancient DNA Reveals Prehistoric Habitat Fragmentation and Recent Domestic Introgression into Native Wild Reindeer.” *Conservation Genetics* 15 (5): 1137–1149. doi:10.1007/s10592-014-0606-z.
- Rønningen, K., and F. Flemsaeter. 2016. “Multifunctionality, Rural Diversification and the Unsettlement of Rural Land Use Systems.” In *The Routledge International Handbook of Rural Studies*, edited by M. Shucksmith, and D. L. Brown, 312–322. London: Routledge.
- Sager, T. 1994. *Communicative Planning Theory*. Aldershot: Ashgate.
- Sager, T. 2018. “Communicative Planning.” In *The Routledge Handbook of Planning Theory*, edited by M. Gunder, A. Mandanipour, and V. Watson, 93–104. New York: Routledge.
- Sandström, G., S. Hovik, and E. I. Falleth, eds. 2008. *Omstridd Natur: Trender & Utmaningar I Nordisk Naturforvaltning*. Umeå: Boréa Bokförlag.
- Saporito, E. 2015. *Sensus Building versus Irreconcilable Conflicts: Reframing Participatory Spatial Planning*. Milan: Springer.
- Scharpf, F. 1999. *Governing the Europe: Effective and Democratic?* Oxford: Oxford University Press.
- Selman, P., and M. Knight. 2006. “On the Nature of Virtuous Change in Cultural Landscapes: Exploring Sustainability Through Qualitative Models.” *Landscape Research* 31 (3): 295–307. doi:10.1080/01426390600783517.
- Simon, H. A. 1947. *Administrative Behavior: A Study of Decision-Making Processes in Administrative Organization*. Oxford: Macmillan.
- Singsaas, M. 2016. “Regional Planlegging Som Redskap for Helhetlig Arealforvaltning i Villrein fjellene.” PhD Thesis 2016:06, Institutt for landskapsplanlegging, Norges miljø- og biovitenskapelige universitet, Ås.
- Skjeggedal, T. 1988. “Kommuneplanlegging og bygdeutvikling.” Dr.ing. avhandling 1988:24, Institutt for by- og regionplanlegging, NTH, Trondheim.
- Skjeggedal, T. 2005. “Ambitions and Realities in Norwegian Regional Planning.” *European Planning Studies* 13 (5): 731–748. doi:10.1080/09654310500139582.
- Skjeggedal, T., and K. Overvåg. 2015. “Utfordringer Til en Fjellpolitikk.” In *Fjellbygd Eller Feriefjell?* edited by T. Skjeggedal, and K. Overvåg, 13–31. Bergen: Fagbokforlaget.
- Skjeggedal, T., and M. Clemetsen. 2018. “Integrated and Decentralized Protection and Development of Mountain Landscapes.” *Landscape Research* 43 (1): 64–76. doi:10.1080/01426397.2017.1291923.
- Skjeggedal, T., K. Overvåg, and J. Å. Riseth. 2016. “Land-Use Planning in Norwegian Mountain Areas: Local Development or Nature Protection?” *European Planning Studies* 24 (2): 344–363. doi:10.1080/09654313.2015.1048187.
- St.meld. nr. 62. (1991–1992). *Ny Landsplan for Nasjonalparker og Andre Større Verneområder i Norge*. Oslo: Miljøverndepartementet.
- Statistisk sentralbyrå. 2018. “Vernede områder.” <https://www.ssb.no/arealvern>
- Statistisk sentralbyrå. 2020. “Befolkning.” <https://www.ssb.no/statbank/table/11342/>

- Strand, O., F. Flemsaeter, V. Gundersen, and K. Rønningen. 2013. *Horisont Snøhetta*. NINA Temahefte 51. Trondheim: Norsk institutt for naturforskning.
- Teigen, H., and T. Skjeggedal. 2015. "Fjellpolitikk. Eit Historisk Tilbakeblikk." In *Fjellbygd Eller Feriefjell?* edited by T. Skjeggedal, and K. Overvåg, 33–53. Bergen: Fagbokforlaget.
- Thomassen, J., O. Strand, V. Gundersen, K. Fangel, C. Naess, N. E. Eide, K. Rønningen, F. Flemsaeter, H. Ydse, R. Sørensen, and J. Skorem. 2009. *FoU-Prosjekt Knyttet Til Villrein, Ferdsel og Inngrep i Snøhettaområdet – Dialogseminar på Norsk Villreinsenter Nord 22. – 24. april 2009*. NINA Rapport 481. Trondheim: NINA.
- Yin, R. K. 2009. *Case Study Research: Design and Methods*. 4th ed. London: SAGE.
- Zachrisson, A. 2009. "Commons Protected for or from the People. Co-Management in the Swedish Mountain Areas?." PhD Diss., Department of Political Science, Umeå University, Umeå.
- Zahl-Thanem, and F. Flemsaeter. 2018. *Lokalbefolkningen Rundt Dovrefjell og Sunndalsfjell: Betydningen av Fjellet og Holdninger Til Forvaltningen*. Rapport nr 3/2018. Trondheim: Ruralis.