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Authors: Eckerberg, Katarina, Bjärstig, Therese, and Zachrisson, Anna

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# Incentives for Collaborative Governance: Top-Down and Bottom-Up Initiatives in the Swedish Mountain Region

Katarina Eckerberg\*, Therese Bjärstig, and Anna Zachrisson

\* Corresponding author: [katarina.eckerberg@umu.se](mailto:katarina.eckerberg@umu.se)  
Department of Political Science, Umeå University, S-90P1 87 Umeå, Sweden

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Governance collaborations between public and private partners are increasingly used to promote sustainable mountain development, yet information is limited on their nature and precise extent. This article

analyzes collaboration on environment and natural resource management in Swedish mountain communities to critically assess the kinds of issues these efforts address, how they evolve, who leads them, and what functional patterns they exhibit based on Margerum's (2008) typology of action, organizational, and policy collaboration. Based on official documents, interviews, and the records of 245 collaborative projects, we explore the role of the state, how perceptions of policy failure may inspire collaboration, and the opportunities that European Union funds have created. Bottom-up collaborations, most of which are relatively recent, usually have an action and sometimes an organizational function. Top-down collaborations, however, are

usually organizational or policy oriented. Our findings suggest that top-down and bottom-up collaborations are complementary in situations with considerable conflict over time and where public policies have partly failed, such as for nature protection and reindeer grazing. In less contested areas, such as rural development, improving tracks and access, recreation, and fishing, there is more bottom-up, action-oriented collaboration. State support, especially in the form of funding, is central to explaining the emergence of bottom-up action collaboration. Our findings show that the state both initiates and coordinates policy networks and retains a great deal of power over the nature and functioning of collaborative governance. A practical consequence is that there is great overlap—aggravated by sectorized approaches—that creates a heavy workload for some regional partners.

**Keywords:** Collaborative governance; partnerships; mountain development; natural resource management; role of the state; Sweden.

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## Introduction

Mountain regions around the world, although they make up about a quarter of Earth's land area, have failed to keep up with the growth of environmental, social, and economic capital in surrounding areas (Maselli 2012). Sweden is no exception: High environmental values in terms of biodiversity, recreation, culture, and landscape, but also frequent conflicts, are related to the use and preservation of natural resources in its mountain region (Moen 2006; SEPA 2011). Increasingly, international and national authorities rely on various forms of governance collaboration between public and private partners to address environmental disputes and improve the management of natural resources (Sabatier et al 2005; Glasbergen 2011). The need to support the involvement of mountain communities in policy dialogue to improve living conditions and foster action for sustainable mountain development globally is emphasized by Maselli (2012). Multilevel and cross-sectoral collaboration is also

required, because natural resources span administrative boundaries.

While the literature on collaborative governance is far from new and is rapidly growing (McGuire 2006), relatively little has been written about the situation in mountain regions. Governance systems in mountain communities have been studied in terms of regional resilience to climate change in Switzerland (Luthe et al 2012), ecotourism and local natural resource management in Nepal (Nepal 2002; Khanal 2007), landscapes in Italy (De Ros and Mazzola 2012), and water governance (Molden et al 2013). Yet knowledge is still limited as to the nature and extent of collaborative solutions in mountain regions and their social and economic context (Björnsen Gurung et al 2012).

This article analyzes existing governance collaborations related to the environment and natural resource management in Swedish mountain communities, with the aim of critically assessing how they evolve and the kinds of issues they address. We distinguish among different types of collaborative arrangements. Voluntary

organizations may respond to a perceived environmental-management problem by creating a collaborative group that draws in government actors as participants (bottom-up collaboration), and government agencies may promote (top-down) collaboration where traditional command-and-control approaches have failed (Koontz 2006). How can patterns of top-down and bottom-up collaboration in the mountain region be understood? Do they perform different functions, as proposed by Margerum (2008)? For each type of collaboration, we investigate its main purpose, which actors are leading it, and what patterns of interaction can be discerned on themes that are important to the Swedish mountain region (SEPA 2011). We focus particularly on 3 aspects drawn from the literature: (1) the role of the state in top-down and bottom-up collaboration, (2) how perceptions of policy failure may contribute to collaborative solutions, and (3) the opportunities European Union (EU) funds have created.

## Analytical framework

The concept of governance captures modes of coordinating, managing, and guiding action in the realm of public affairs. Collaborative governance implies that this takes place through organized networks, including business and cooperative economic associations, involving various forms of public-private collaboration (Pierre and Peters 2000; McGuire 2006; Glasbergen 2011; Emerson et al 2012). We use the concept of collaborative governance to distinguish situations in which public and private actors work together to resolve a particular issue or take action for a public purpose that could otherwise not be accomplished (Emerson et al 2012). This governing arrangement could be top down, initiated by public agencies (Ansell and Gash 2007), or bottom up, in the form of network structures initiated by nongovernment actors (McGuire 2006: 35–36). Included in our study are different types of partnerships involving representatives from government agencies at multiple levels and nongovernment actors, including private landowners, companies, and nonprofit organizations. We use Margerum's (2008) distinction among 3 main functions that collaborative groups may perform:

1. *Action* collaboration to address a particular problem;
2. *Organizational* collaboration to influence priority setting in planning;
3. *Policy* collaboration to achieve integrated government policy solutions.

We investigate the prevalence of those functions in top-down versus bottom-up arrangements and discuss the implications thereof. This sheds light on which types of collaborations can address what problems and what role the government plays in those. For example, the

representation of stakeholders is more crucial in policy and organizational collaborations than in action collaborations, as is the need for new management arrangements to support implementation (Margerum 2008). However, Margerum did not discuss how these functions relate to one another across or within problems, a question that we analyze.

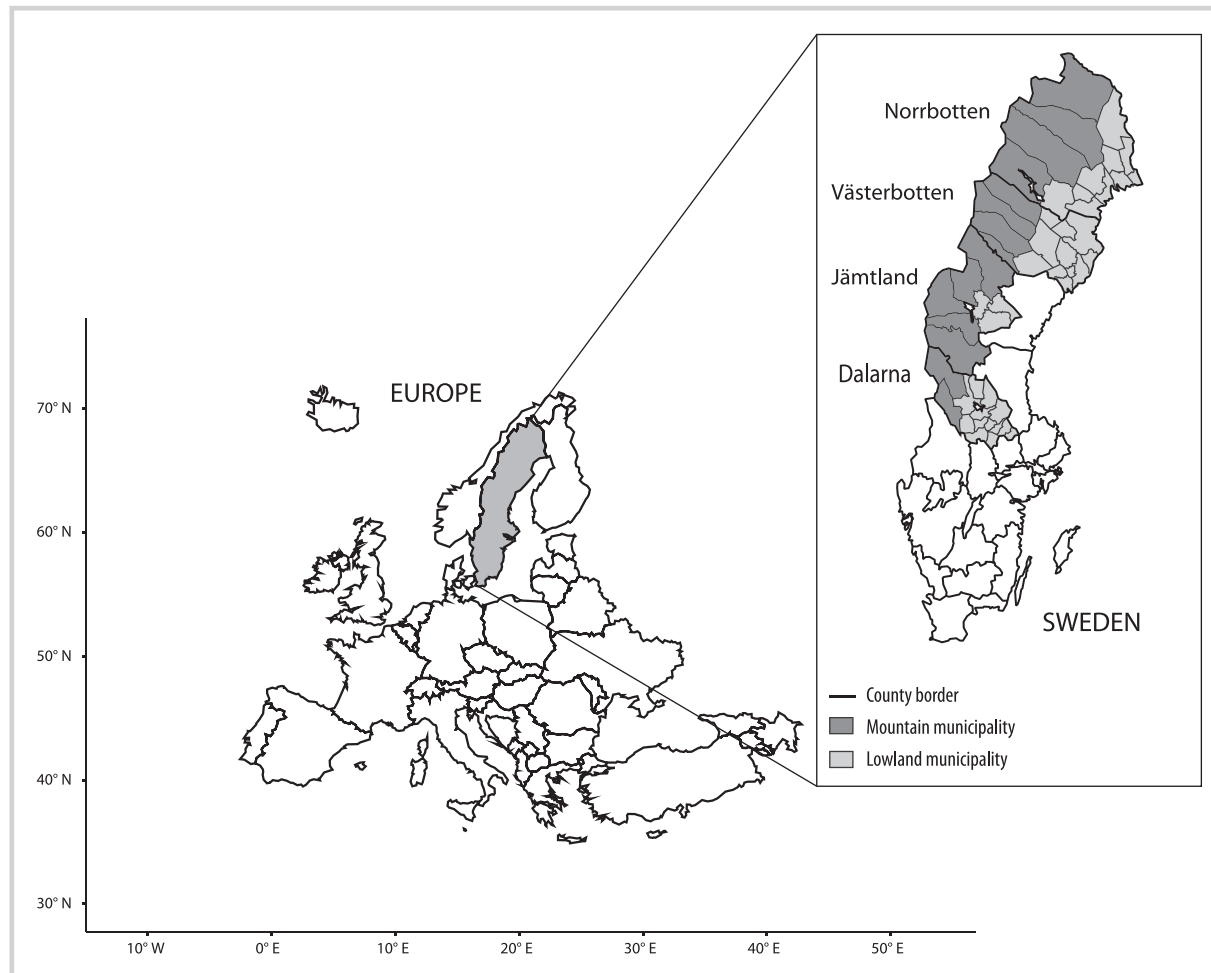
Often, collaboration is initiated when previous organizational structures have failed to deliver a particular policy (Koontz 2006). Which actors are included and able to make decisions is central to how the collaborations develop (Sabatier et al 2005: 15–16). Threats of stronger regulations, and situations of crisis, may also affect the propensity to collaborate (Lubell et al 2005). In addition, program support by the state can foster collaborative approaches by setting up favorable organizational structures for multistakeholder action, as evidenced in Italian mountain landscapes (De Ros and Mazzola 2012). State support in the form of financial and human resources has been identified as pivotal for moving from agreement to implementation (Koontz and Newig 2014). This is discussed further later.

## Material and methods

The mountain region covers 40% of Sweden's total area and is defined by the administrative borders of the 15 municipalities that include alpine areas, organized into 4 counties: Norrbotten, Västerbotten, Jämtland, and Dalarna (Figure 1). The Swedish mountains are located in the west along the border with Norway and range from 1200 to 2097 m above sea level. The darker gray areas in Figure 1 mark the 15 mountain municipalities characterized by sparsely populated rural areas. There are only 4 cities with more than 50,000 inhabitants in the 4 counties, all of which are located in the area shown on the map in lighter gray.

This study drew from a variety of data sources: (1) official documentation from government agencies and some voluntary organizations, including reports, policy statements, and strategies; (2) telephone interviews with 8 key officials in the 4 counties; and (3) examination of collaborative projects related to natural resources management. Some 20 policy reports and strategies were examined to assess requirements and policy intentions for consultation and collaboration across sectors. Because of their central role in public-private partnerships, we interviewed 2 key individuals from each of the 4 county administration boards (CABs), including the heads of units and others with a broad overview of the current situation and ample experience with collaborative arrangements. The purpose of those interviews was primarily to validate the picture of different types of collaborations that resulted from the document analysis; they were also intended to test our assumptions about

**FIGURE 1** Four mountainous counties in northern Sweden; darker shading indicates more sparsely populated rural areas. (Map by Sabrina Dressel)



explanatory factors. The interviews were recorded with permission, transcribed, and validated by the interviewees (Kvale 1996).

A data set on collaborative projects was gathered from records provided by the CABs, the Forest Agency, the Sami Parliament, and the Sami National Association; all 15 municipalities; and a range of voluntary groups and economic actors engaged in regional development, including landowners' associations. About 500 projects were reported and organized based on location, project title, general aim, description of activities, involved partners, and time period. Project records were omitted when projects were reported twice, were located outside the mountain region, or did not involve land use management. The data were further validated to include only public-private collaborations, with the exception of international projects, as well as one-shot consultations and information events; this reduced the number of projects for examination to 245.

### Top-down collaboration

The state has mandated collaborative arrangements in a growing number of mountain resource management areas over time, as shown in Table 1, which mostly fall into the functional categories of organizational or policy collaboration (Margerum 2008). Since 1987, the Planning and Building Act (last amended in 2010: 900) has required municipalities to consult with all affected parties throughout the planning process according to stringent rules for public scrutiny. Furthermore, chapter 6, section 4, of the Environment Act of 1989 stipulates consultation with all affected parties on activities that may affect the environment and requires special permission from the CABs for activities with a major impact.

While this applies to all land use, special arrangements concern the mountain region. The 4 CABs have met since 1997 to discuss problems and coordinate efforts on sustainability issues in a group called the Mountain Delegation, in which voluntary organizations take part in

**TABLE 1** Top-down public–private collaboration in the Swedish mountain region. The functions are based on Margerum (2008).

Collaboration	Function	Main features	Extent and nature
Land use master planning and detailed planning	Policy	Consultation with all affected interests on land use development according to the Planning and Building Act, governed by strict rules	Consultation, rather than partnership, between municipalities and partners at regional and local levels
Developing and monitoring National Environmental Quality Objectives	Policy	With SEPA as the national coordinator, regional adaptation and monitoring in consultation with regional and local partners	CABs with national and local (mostly public) partners
Mountain delegation	Organizational	Cooperation between CABs in pursuit of sustainable mountain development since 1997	County governors and CABs of the 4 northernmost counties; ad hoc inclusion of other interested parties
County-level delegation for reindeer management	Organizational Action	Consultation on the maximum number of reindeer; allocation of state funding for reindeer husbandry development; fishing and hunting in reindeer-herded mountains	County governors and CABs in the relevant counties except Dalarna; representatives of local politicians and reindeer-herding communities
Reindeer-herding management plans	Action	Voluntary land use plans for reindeer grazing on forest lands since 2000, with participation by 50 of the 51 reindeer-herding communities	Forestry agency-led consultation with reindeer-herding communities
Snowmobile driving	Action	Several initiatives to channel snowmobiles in sensitive natural areas	Municipality-led with local partners, including in Dalarna and Jämtland
Nature protection consultation	Organizational	Regional consultation in the establishment of new nature protection areas and management of protected areas, as required by the government since 2011	CAB-led with multiple public and private partners; established in Västerbotten and Dalarna but not yet functioning in Norrbotten and Jämtland
Natura 2000	Policy	International network of protected areas based on the 2 European Habitat Directives on birds and species protection	CABs with landowners and other interests
Strategy for forest protection	Policy Organizational Action	Consultations on both formal protection and voluntary agreements between the state and the forest owners according to central guidelines	CABs and Forest Agency with multiple partners, primarily in the forest sector
Water management	Organizational Action	Water planning and improvement of water bodies in consultation with national, regional, and local interests according to the Water Framework Directive	Water councils with local public and private partners
Local fishing groups	Organizational Action	Sustainable fishing management and public access to fishing as issued by the CABs according to legislation from 1981	Real estate owners who also have fishing rights, as mandated by the CABs
Wildlife management delegation	Policy	Allocation of hunting permits for moose, small game, and large carnivores (wolves, bear, lynx, boars, and eagles)	CABs with regional and local partners, including hunting and forest organizations; (Sami) reindeer-herding communities included in reindeer management areas



regular dialogue meetings. The CABs have been required since 1971 to determine the number of reindeer allowed for each of the 51 reindeer-herding communities and oversee the implementation of reindeer management in land use planning. The 3 northernmost CABs have a Delegation for Reindeer Management, with equal representation from political parties and reindeer-herding communities, which decides all major issues according to the Reindeer Management Act. Those consultations are intended to mitigate the multiple conflicts over property rights and effects of timber harvests between the reindeer husbandry and the forestry sectors in particular (Widmark 2009). The frequent disputes between forest owners and reindeer-herding communities have motivated the development of reindeer-herding management plans, which can be seen as new management arrangements in the form of action collaboratives responding to policy failure. Similar responses in the form of new management arrangements that emerge from both top-down and bottom-up initiatives include off-road (mostly snowmobile) driving and nature protection (discussed in more detail later). Mediation of conflict between skiers and snowmobilers has occurred through, for example, a collaborative arrangement in Funäsdalen in Jämtland (Zachrisson 2009).

The Swedish Environmental Protection Agency (SEPA) coordinates the National Environmental Quality Objectives (NEQO), which guide all social sectors in their policy implementation. Monitoring of the NEQO “magnificent mountain region” objective that applies to the entire mountain region shows many current threats to this landscape (SEPA 2011). Since 2011, the government has required all CABs to consult broadly with affected parties regarding nature protection, but so far only Västerbotten and Dalarna, among the mountain CABs, have established committees to comply with this requirement. Since 2001, the Nature Conservation Policy has promoted a move from a largely centralized mode of policy-making toward decentralization and mobilization of new actors, providing incentives for local action (Eckerberg 2012). Likewise, since 2012, the Recreation Policy has proclaimed shared responsibility for monitoring and evaluation between the Planning and Housing Agency and the SEPA, as well as other government and nongovernment actors.

In such organizational collaborations, representing all relevant interests is a challenge, and the ideal is not mirrored in the implementation. Occasionally, however, local communities take part in decision-making on management plans, such as in the Strengthened Dialogue for Nature Protection in Dalarna. Following Margerum (2008), decentralization of power in new management arrangements is required to allow greater influence by the various stakeholders. The World Heritage Site Lapponia in Norrbotten has so far the most advanced collaborative governance of any protected area (Zachrisson 2009).

The Strategy for Forest Protection (SEPA 2005) calls both for public-funded forest protection initiated by CABs and municipalities and for voluntary agreements between forest owners and the Forest Agency in the form of action collaboration for specific forest holdings. The Natura 2000 process also calls for inclusion of stakeholders in the establishment of new protected areas as policy collaborations. There has been substantial activity related to establishing new forest protected areas since the 2002–2004 national inventory of natural areas. For example, in Norrbotten alone there are 343 nature reserves, but another 46 are being proposed in negotiations between the SEPA and the Norrbotten CAB on state-owned Sveaskog’s forest lands (SEPA 2013). The increased use of collaborative arrangements in nature protection is a result of considerable conflicts about the designation of nature protection areas, particularly in the mountain region, and thus is a direct result of policy failure (Zachrisson 2009).

In water management, the EU Water Framework Directive requires broad participation through water councils that prioritize activities for water quality improvement. Local fishing groups set management rules and issue permits for recreational fishing according to the Fishing Cooperation Act of 1981. While the water councils are relatively new organizational collaborations in the mountain region and are primarily a top-down initiative with little power to act, local fishing groups have been around longer as action collaborations, relying largely on leadership from landowners. In both instances, the state provides financial, as well as expert, support.

Wildlife management has been pursued since 2010 through regional wildlife management delegations that decide on overarching goals and set regional management plans for moose and large carnivores (Björstig et al 2014). The wildlife management delegation is led by the CAB and composed of forest owners, hunting and environmental and outdoor organizations, tourism operators, other businesses, and local politicians. In the reindeer-herding areas, the reindeer-herding communities are included. This organizational collaboration has sprung from perceived policy failure to establish legitimate management rules that apply to the many stakeholders (Widmark 2009).

To conclude, top-down collaboration has expanded and involves a range of land use activities when previous state policies failed to deliver, at least in certain areas. The aim of these collaborative arrangements is generally to foster more integrative and sustainable management of mountain resources.

### Bottom-up and mixed collaborative projects

Public–private partnerships and consultative arrangements have also emerged from below in the form of various types of projects. We identified 245

**TABLE 2** Number of collaborative projects per county.

Location	Number of projects
Norrbotten	46
Västerbotten	57
Jämtland	83
Dalarna	39
Several counties	4
With Norway or Finland	16
Total	245

collaborations—mostly action collaborations but also some organizational collaborations, somewhat unevenly distributed among the 4 counties (Table 2).

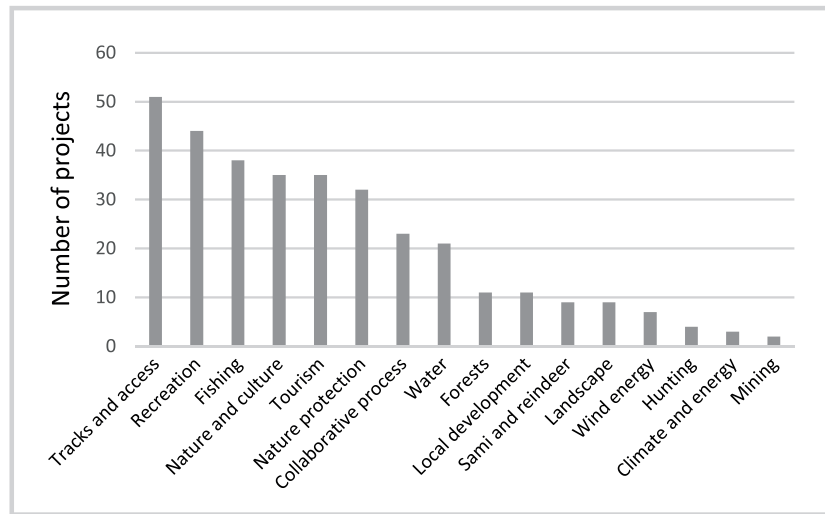
Central funding from SEPA, through the Local Nature Protection Program (LONA) and EU-LIFE/LIFE+ (the EU's programs for environment and climate action) as well as funding from the Swedish Agricultural Agency through the EU Rural Development Program with LEADER (*Liaison entre actions de développement de l'économie rurale*), has spurred this development, since these programs require partnership in financing and

implementation (Table 3). They are, however, not limited to mountain regions, even if several of them specifically target sustainable rural development in areas of greatest need, which includes mountain communities. Those projects are analyzed in more detail later, after a review of existing bottom-up public–private collaborations.

Several new collaborative management arrangements for off-road or snowmobile driving and nature protection have resulted from combined top-down and bottom-up initiatives. The Sami Parliament was awarded support from the EU Structural Funds to develop a model for more sustainable off-road or snowmobile driving in the early 2000s, which engages some 30 reindeer-herding communities, together with the CABs. Protection of threatened species also involves bottom-up action collaborations, as in the Open Eye campaign in Västerbotten, where local ornithologists and others monitor rare birds' eggs to guard against theft. Protection of the endangered mountain fox has evolved as a result of research that identified specific threats and was carried forward by environmental organizations, as well as SEPA and the CABs, with support from EU LIFE funds. Management of protected areas involves some consultation with local communities and substantial subcontracting of local actors to carry out various kinds of maintenance. In particular, maintenance of tracks

**TABLE 3** EU and national funding schemes for collaborative mountain initiatives.

Scheme	Description
<b>Europe-level funding with national cofunding required</b>	
EU Structural Funds European Regional Development Fund European Social Fund	Social and economic cohesion policy to reduce disparities among regions and support less favored regions covers every region in the EU. However, most funds are targeted where they are most needed, in regions with a gross domestic product per capita under 75% of the EU average. The Swedish mountain region is such a target area.
Rural Development Program	As the second pillar of the EU's Common Agricultural Policy, the rural development program helps rural areas address a range of sustainability issues.
LEADER	The LEADER approach contributes to rural development by forming partnerships at a subregional level among public, private, and civil sectors.
LIFE and LIFE+	The 1992 LIFE program and its 2007 successor LIFE+ is the European Commission's funding instrument for environmental and climate action. The environment strand covers 3 priority areas: environment and resource efficiency, nature and biodiversity, and environmental governance and information.
European Fisheries Fund	The ambition is to make fisheries more sustainable through actions that clearly focus on innovation without neglecting the real needs of local communities.
<b>National-level funding with local cofunding required</b>	
LONA	Funding supports local initiatives in nature conservation as they emerge from the local social context. Municipalities and local social partners such as environmental and cultural organizations can apply.
Local Investment Program for Ecological Sustainability	This large-scale program (1998–2003) was designed both to promote ecologically sustainable development and to create new green jobs through partnerships initiated by municipalities.

**FIGURE 2** Collaborations by theme.

(there are 5500 km of public pathways in the mountain region) and access facilities are important elements in encouraging visitors and providing high recreational values (SEPA 2011).

The LEADER program builds entirely upon locally organized partnerships of rural actors, carried forward into the newest Rural Development Program, which covers 2014–2020. Activities often combine nature and cultural aspects with local economic development that opens opportunities for local entrepreneurship. Some activities involve improving fishing areas, also supported by the European Fisheries Fund. Regional fishing partnerships to provide better access to river fishing, and recovery of fish stocks result from local cooperation.

Two parallel forest certification schemes, the Forest Stewardship Council and the Program for the Endorsement of Forest Certification, involve collaboration between the forest sector and social partners, such as local communities and other stakeholders. Both require increased attention to environmental, as well as social and cultural, values in forest operations; they have grown out of perceived policy failure to address sustainability concerns in forest operations (Johansson 2013).

“Destination projects” facilitate tourism and promote economic development in the mountain region. Some of them have approached the CABs for funding, and links with nature protection have lately increased, especially where recreation and tourism demands are strong, even if there has been some resistance to this development among traditional nature-protection interests.

To conclude, collaboration from below through projects notably concerns rural economic development activities relating to tourism, fisheries, forestry, and rural enterprises, but nature protection activities also combine top-down and bottom-up collaboration (Figure 2). Bottom-up action collaboration manifests more frequently in local planning initiatives and in

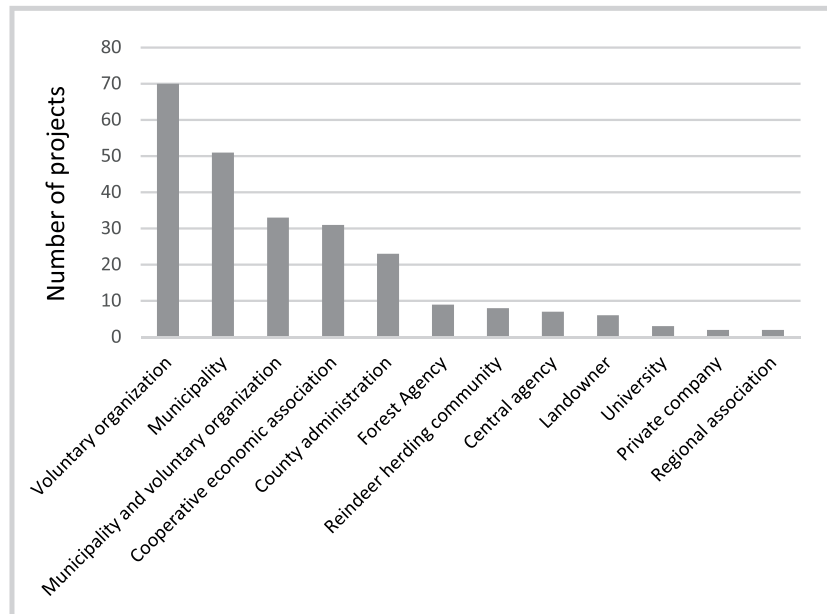
collaborative projects to improve tracks and access, recreation, and fishing—themes in which there tends to be less conflict and top-down initiative. Nature and culture protection, pure nature protection, and tourism are also frequent project themes. Several are concerned with improving the collaborative process as such through organizational collaboration. Few of the bottom-up collaborative projects concern climate and energy, wind energy, hunting, and mining. We have distinguished wind energy from other climate and energy initiatives because wind energy establishment is highly contested, particularly in the mountain region. For those issues, mandatory consultation is already taking place according to planning rules. There is thematic overlap between bottom-up and top-down collaboration, especially in reindeer management and nature protection, suggesting that government-induced collaboration is seldom sufficient but requires additional financial and human resource support for reducing policy failure. Indeed, funding opportunities appear vital to spurring bottom-up collaborative governance, because existing funding—for example, through LEADER, LONA, and EU LIFE and LIFE+—targets those themes that are most common in the action collaborations. Table 4 summarizes bottom-up and mixed project collaborations.

Who then leads those collaborative projects? As Figure 3 shows, most projects are led by voluntary organizations, such as local branches of the Society for Nature Conservation, fishing organizations, and homestead societies. Municipalities are the second most common lead partner. The third most common arrangement is joint leadership by voluntary organizations and municipalities, probably because LEADER funding requires this approach. Business organizations, such as local tourist companies, are in fourth place. Hence, most projects are led from below, rather than by county or national government agencies.



**TABLE 4** Bottom-up and mixed public–private collaboration in the Swedish mountain region. The functions are based on Margerum (2008).

Collaboration	Function	Main features	Extent and nature
Off-road driving in the reindeer-herding community	Action	Model development for sustainable transport in reindeer-herding communities with support from EU Structural Funds and the CABs, in addition to the general goal that all reindeer-herding communities should have such terrain driving plans and supportive measures in place	Cooperation pilot projects among 6 reindeer-herding communities with CABs, led by the Sami Parliament; activities by 30 reindeer-herding communities coordinated by the Västerbotten CAB
Local nature protection	Action	Initiatives for protecting and managing local nature areas at the municipal level, cofunded by LONA grants from SEPA	All municipalities with local partners
Major protected areas in the Västerbotten mountains; Strengthened Dialogue for Nature Protection in Dalarna	Organizational Action	Consultation groups for some major nature protection areas, such as the Vindel Nature Reserve, Oxfjället, Blajkfjället, Marsfjället, and Skalmödal in Västerbotten and Särna-Idre, Transtrand, and Fulufjället in Dalarna	CAB in Västerbotten with local public and private partners; CAB in Dalarna with local public and private partners and the Pan parks foundation (initiated by the World Wide Fund for Nature for Europe along the model of Yellowstone and Yosemite)
Laponia tjuottjudos	Organizational Action	Collaborative governance of the Laponia National Park, steering committee established in 2013	Sami-led cooperation including 7 reindeer-herding communities and national and local public partners
Voluntary measures to protect threatened species	Action	Various local initiatives such as Open Eye for bird-egg protection in Västerbotten, protection of the mountain fox in Jämtland, and controlled burns to promote biodiversity in forestry	Local private partners with CABs
Rural Development Program	Action	Initiatives for nature and culture protection, fishing, tourism, and improved access supported by the Rural Development Program	CABs with multiple local public and private partners
Fishing areas	Action	Development of fishing areas supported by LEADER and the European Fisheries Fund	Local partnerships connected to local fishing groups on the Vindel River in Västerbotten
Regional fishing partnerships	Organizational Action	Regionally driven cooperation to promote the development of fisheries on northern rivers, supported by membership fees	Local and river-based fishing organizations with municipalities
Forest Stewardship Council and Program for the Endorsement of Forest Certification	Organizational Action	Schemes for forest owners dedicated to sustainable forestry, with consultation required by both schemes and collaborative governance with Sami representation required by the Forest Stewardship Council	Forest owners with public and private partners
Destination projects	Organizational Action	Regional economic development collaboration to foster new activities such as tourism	Municipalities and local economic partners in all counties

**FIGURE 3** Collaborations by lead organization.

Yet it is often state funding that encourages and enables their efforts.

### Concluding discussion

While the legal foundation for collaborative solutions has considerably strengthened since the late 1980s, many of the bottom-up collaborations have appeared more recently. The themes of the collaborations were chosen around environment and natural resource management, but they also clearly concern the promotion of sustainable mountain development. Our results suggest that top-down and bottom-up types of collaboration are complementary in situations of considerable conflict over time and where public policies have partly failed, such as for nature protection and reindeer grazing. In other less contested areas, such as rural development relating to tourism, improving tracks and access, recreation, and fishing, there are many more bottom-up action collaborations. As for the function of collaboration (Margerum 2008), the pattern varies: Policy and organizational collaborations appear in both top-down and bottom-up form, while action collaborations seem to be mostly initiated and led from below. There is also considerable interaction among the functions, with action collaboration initiated to address implementation problems that have not effectively been resolved.

State support, especially in the form of funding, is particularly central to explaining the emergence of bottom-up action collaborations. In addition, for those issues for which local partners can find mutually acceptable development goals and form reciprocal relationships—such as fishing, recreation, and nature and

culture protection—there are greater chances for bottom-up collaborations to emerge.

Our findings show that the state initiates and coordinates policy networks and retains a great deal of power over the nature and functioning of collaborative governance. This is partly exerted through funding mechanisms, some of which come from the EU, but is also spurred by national programs whose funding rules require public–private partnership. It is reinforced through the nature of collaborative arrangements, because even if many of them are voluntary, they would likely not occur without some funding from regional and local partners. This is consistent with a study in the Italian Alps, which found that half of the landscape initiatives were developed as a result of European funding for bottom-up approaches (De Ros and Mazzola 2012), and with analysis of tourism supply chains in the Swiss Alps, which found that combinations of central and local collaboration promoted economic diversification and innovation in tourism (Luthe et al 2012). It is likely that similar results could appear in other European contexts.

A practical issue identified during analysis that was also mentioned by our informants is that there is great overlap among the participating partners. The same regional and local partners are present in both top-down and bottom-up collaborations. Hence, the collaborations place a heavy workload on some regional partners, especially the mountain communities, because there are few individuals left in the mountain area who can take part in all these initiatives. This situation is aggravated by the sectorization of the CABs, which leads to repetitive and uncoordinated quests for collaboration with similar

partners across thematic areas. It has been hypothesized that transaction costs may be increased when new collaborative arrangements are added to existing institutions (Lubell et al 2010). This problem would

probably be more pronounced in mountain areas, but further studies are needed to assess whether eventual negative effects outweigh positive ones in terms of institutional capacity.

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## REFERENCES

- Ansell C, Gash A.** 2007. Collaborative governance in theory and practice. *Journal of Public Administration Research* 18:543–571.
- Bjärstig T, Sandström C, Lindqvist S, Kvastegård E.** 2014. Partnerships implementing ecosystem-based moose management in Sweden. *International Journal of Biodiversity Science, Ecosystem Service & Management* 10(3):228–239. doi: 10.1080/21513732.2014.936508.
- Björnsen Gurung A, Wymann von Dach S, Price MF, Aspinall R, Balsiger J, Baron J, Sharma S, Greenwood G, Kohler T.** 2012. Global change and the world's mountains: Research needs and emerging themes for sustainable development. *Mountain Research and Development* 32(S1):47–54.
- De Ros G, Mazzola A.** 2012. Networking with landscape: Local initiatives in an Italian Alpine valley. *Mountain Research and Development* 32(4):400–410.
- Eckerberg K.** 2012. Local participation and learning in nature protection: A Swedish success story. In: Meadowcroft J, Ruud A, Langhelle O, editors. *Democracy, Governance and Sustainable Development: Moving Beyond the Impasse*. Cheltenham, United Kingdom: Edward Elgar, pp 55–74.
- Emerson K, Nabatchi T, Balogh S.** 2012. An integrative framework for collaborative governance. *Journal of Public Administration Research and Theory* 22:1–29.
- Glasbergen P.** 2011. Understanding partnerships for sustainable development analytically: The ladder of partnership activity as a methodological tool. *Environmental Policy and Governance* 21:1–13.
- Johansson J.** 2013. *Constructing and Contesting the Legitimacy of Private Forest Governance: The Case of Forest Certification in Sweden* [PhD dissertation]. Umeå, Sweden: Department of Political Science, Umeå University.
- Khanal R.** 2007. Local-level natural resource management networks in Nepal. *Mountain Research and Development* 27(1):20–23.
- Koontz TM.** 2006. Collaboration for sustainability? A framework for analysing government impacts in collaborative-environmental management. *Sustainability: Science, Practice & Policy* 2(1):15–22.
- Koontz TM, Newig J.** 2014. From planning to implementation: Top-down and bottom-up approaches for collaborative watershed management. *Policy Studies Journal* 42(3):416–442.
- Kvale S.** 1996. *Interviews: An Introduction to Qualitative Research Interviewing*. Thousand Oaks, CA: Sage.
- Lubell M, Henry AD, McCoy M.** 2010. Collaborative institutions in an ecology of games. *American Journal of Political Science* 54(2):287–300.
- Lubell M, Sabatier PA, Vedlitz A, Focht W, Trachtenberg Z, Matlock M.** 2005. Conclusions and recommendations. In: Sabatier PA, Focht W, Lubell M, Trachtenberg Z, Vedlitz A, editors. *Swimming Upstream: Collaborative Approaches to Watershed Management*. Cambridge, MA: MIT Press, pp 201–232.
- Luthe T, Wyss R, Schuckert M.** 2012. Network governance and regional resilience to climate change: Empirical evidence from mountain tourism communities in the Swiss Gotthard region. *Regional Environmental Change* 12:839–854.
- Margerum RD.** 2008. A typology of collaboration efforts in environmental management. *Environmental Management* 41:487–500.
- Maselli D.** 2012. Promoting sustainable mountain development at the global level. *Mountain Research and Development* 32(S1):64–70.
- McGuire M.** 2006. Collaborative public management: Assessing what we know and how we know it. *Public Administration Review* 66:33–43.
- Moen J.** 2006. Land use in the Swedish mountain region: Trends and conflicting goals. *International Journal of Biodiversity Science & Management* 2(4): 305–314.
- Molden D, Hurni H, Zimmermann A, Wymann von Dach S.** 2013. Focus issue: Water governance in mountains. *Mountain Research and Development* 33(3): 193–194.
- Nepal SK.** 2002. Mountain ecotourism and sustainable development. *Mountain Research and Development* 22(2):104–109.
- Pierre J, Peters G.** 2000. *Governance, Politics and the State*. London, United Kingdom: Macmillan.
- Sabatier PA, Focht W, Lubell M, Trachtenberg Z.** 2005. *Swimming Upstream: Collaborative Approaches to Watershed Management*. Cambridge, MA: MIT Press.
- SEPA [Swedish Environmental Protection Agency].** 2005. *Nationell strategi för formellt skydd av skog* [National Strategy for Forest Protection], June 2005. Stockholm, Sweden: Naturvårdsverket and Skogsstyrelsen.
- SEPA [Swedish Environmental Protection Agency].** 2011. *Miljömålen på ny grund: Naturvårdsverkets utökade redovisning av miljö kvalitetsmålen* [In-Depth Evaluation of the National Environmental Quality Objectives], Report 6433. Stockholm, Sweden: Naturvårdsverket.
- SEPA [Swedish Environmental Protection Agency].** 2013. *Skyddsvårda statliga skogar: Samråd om områden på Sveaskogs markinnehav i Norrbottens län* [Forests with High Nature Protection Values on Sveaskog Land in Norrbotten County], Report 6577. Stockholm, Sweden: Naturvårdsverket.
- Widmark C.** 2009. *Management of Multiple-Use Commons—Focusing on Land Use for Forestry and Reindeer Husbandry in Northern Sweden* [PhD dissertation]. Umeå, Sweden: Department of Forest Economics, Swedish University of Agricultural Sciences.
- Zachrisson A.** 2009. *Commons Protected for or from the People: Co-management in the Swedish Mountain Region?* [PhD dissertation]. Umeå, Sweden: Department of Political Science, Umeå University.

## INTERVIEWS

- Eriksson H.** 2014. Director, Division of Nature Protection, Jämtland County Administration, 14 February.
- Eriksson J-A.** 2014. Coordinator, Division of Nature Protection, Dalarna County Administration, 7 February.
- Eriksson T.** 2014. Fishing Ecology Expert, Division of Nature Protection, Västerbotten County Administration, 21 February.
- Gustavsson E.** 2014. Director, Division of Natural Resources and Reindeer Husbandry, 13 February.
- Jonsson B.** 2014. Director, Division of Nature Protection, Västerbotten County Administration, 11 March.
- Jonsson K.** 2014. Mountain Management Expert, Division of Nature Protection, Jämtland County Administration, 11 March.
- Svenson S-Å.** 2014. Environmental Protection Director, Division of Nature Protection, Dalarna County Administration, 12 March.
- Wennström B.** 2014. Director, Division of Environment, Norrbotten County Administration, 6 March.