

Article

Drivers for Public–Private Partnerships in Sustainable Natural Resource Management—Lessons from the Swedish Mountain Region

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Abstract: Sweden’s mountain areas are sensitive ecosystems that are used by a wide range of stakeholders, and this raises multiple sustainability concerns. Collaborative governance solutions are becoming increasingly common in such situations to promote more sustainable practices. While the Swedish mountain area is indeed a hot spot for different forms of public–private partnerships (PPPs) related to natural resources management, as yet, little is known about the shaping of participation, leadership, and implementation of these processes. What are the drivers for implementing collaborative environmental partnerships, do the drivers differ, and if so, how? What role does the specific context play in the design of these PPPs? Are the PPPs useful, and if so, for what? To analyze those issues, we conducted 38 semi-structured interviews with project leaders from a sample randomly selected from a database of 245 public–private collaborative projects in the Swedish mountains. Our results indicate that consequential incentives in the form of funding and previous successful collaborations seem to be the major drivers for such partnerships. A critical discussion of the possibilities and limitations of public–private forms of governance in rural mountain areas adds to the ongoing debate on the performance of environmental PPPs in a regional context.

Keywords: collaboration; public–private partnership; drivers; process; implementation; sustainability; natural resource management; mountains; Sweden

1. Introduction

The Swedish mountain region is currently experiencing a high development pressure, which is threatening sensitive environments that are of interest for different land uses [1–3]. The prevalence of conflicts among the different stakeholders is identified as a major underlying problem. The realization of the Swedish National Environmental Quality Objectives (NEQO) of “a magnificent mountain environment”, “flourishing lakes and streams”, “sustainable forests”, and “a rich diversity of plant and animal life” are at stake, and it is acknowledged that reaching the NEQOs will require considerable added efforts from a variety of social, political, and economic actors. Both in Sweden and internationally, various forms of collaborative governance are seen as promising ways to deal with “wicked problems” and policy failure, including the pooling of resources among multiple stakeholders and the use of deliberative management practices e.g., [4–7]. This trend is spurred on by the emphasis on participation in a range of relevant international environmental agreements, first and foremost in the Aarhus Convention and subsequently, in the Convention on Biological Diversity and the EU Biodiversity Strategy, the European Forest Action Plan, and the Water Framework Directive, to name a few. At a national level, the Swedish Government’s Nature Protection Policy from 2001 reiterates the need to widen the scope and engage a broader range of actors, including local communities to achieve

policy goals, in the form of public–private partnerships, and similar policies have been adopted in the forest, rural development, and water management sectors [8–11].

The specific focus of this paper is *environmental partnerships* which aim to improve the environmental quality or natural resource utilization, following the definition of Long and Arnold [12] (p. 6). They define environmental partnerships as “*voluntary, jointly-defined activities and decision-making processes among corporate, non-profit, and agency organizations that aim to improve environmental quality or natural resource utilization*”. The terms “public–private partnership”, “public–private collaborative project”, and “public–private project” are used interchangeably, all implying that actors from the public and private spheres are engaged and interacting. From now on, we use the abbreviation PPPs when referring to public–private partnerships and/or projects geared toward environmental and natural resource management.

In accordance with the argument of Van Huijstee et al. [13], the key analytical focus in the environmental partnership and governance literature is generally of a high spatial level, i.e., the global and international level (see also Reference [14]). Thus, applying the theoretical concepts to the regional and/or local level provides a contribution to this specific environmental partnership literature, as argued by Bjärstig and Sandström [8] and Widman [15]. There are also empirical arguments for bringing the analysis down to a more context-dependent level, for instance, the way ecosystems work [16] and the institutional and/or socioeconomic variations across spatial levels [17,18]. Furthermore, there is a research gap regarding the initiation of environmental partnerships and how the realization of partnerships takes place, which we will address in this study [15,19,20]. A previous paper by Bjärstig [21] covers sustainable output and the outcomes/effectiveness of PPPs on natural resource management in the Sweden mountain region, and studies by, for example, Bjärstig and Sandström and Zachrisson et al. [8,22] handle PPPs in natural resource management in rural areas in relation to the roles, relative power levels, and interactions between partners in a rural context. Within this literature, however, the rationale and drivers behind the PPPs are yet to be identified and analyzed.

The aim of this paper is to examine the shaping of participation, leadership, and the implementation of partnering processes on natural resource management, i.e., the realisation of these environmental PPPs in the Swedish mountain region. What are the drivers for implementing collaborative partnerships, do the drivers differ, and if so, how? What role does the specific context play in the design of these PPPs? Are the PPPs useful, and if so, for what?

The results presented are also relevant to other countries and/or regions with similar socio-economic contexts, i.e., sparsely populated areas rich in natural resources that wish to manage the sustainability of their natural resources through PPPs.

2. Drivers for Public–Private Partnerships

Partnerships are increasingly being used in sustainability governance worldwide [13,23–25]. There are various definitions of the PPP concept to be found. These depend on the disciplinary approach and policy area at hand (the concept originates in fields related to, e.g., infrastructure, economic development, and health/medicine), but they all share some common features [26,27]. In the context of our research, we define a PPP as a voluntary, agreed on collaboration between the state and a non-state actor(s). Moreover, in line with Bjärstig and Sandström [8], the partnership should be a formalized, long-term, or at least mutual, a commitment between partners with the purpose of complementing each other so that each partners’ goals can be achieved more efficiently than would otherwise have been possible. Additionally, resources, risks, and rewards should be shared among the partners [28], and the aim of a PPP is often to provide some sort of public service or asset [20].

A considerable number of literature reviews have been made to find ways to sort and categorize PPPs (e.g., References [12,27,28]). Empirical studies have demonstrated that PPPs can appear in many different forms with different purposes. In some cases, PPPs are seen as a method by which to govern and/or manage specific objectives. In other cases, PPPs are described as an institutional arrangement for financial cooperation; a development strategy; an arrangement for crisis management

and knowledge transfer; a tool for solving problems, conflicts, and providing community amenities; or a way to modernize the public sector [8].

In relation to categorizing environmental PPPs, it is interesting to address drivers to the partnering processes—the questions of when, where, and why these collaborative arrangements evolve. According to Emerson et al. [29] (p. 9), many frameworks for collaborative arrangements “conflate system context and conditions with the specific drivers of collaboration”. Emerson et al. [29] presented a framework that distinguishes between contextual variables and essential drivers, which we will use as an analytical departure in this paper, with the purpose of mapping and analyzing drivers for partnerships in natural resource management in the Swedish mountains. Essential drivers are the force(s) without which the collaboration would not thrive. These drivers are *leadership*, *consequential incentives*, *interdependence*, and *uncertainty*. The more drivers present and acknowledged by the parties, the more likely it is that collaboration will commence.

Leadership refers to a present and identified leader who holds a position that allows him/her to initiate and aid in securing resources and support (e.g., by providing staffing, technologies, time, etc.) for a collaborative arrangement. It is crucial that the leader acts impartially with respect to the preferences of the collaborating participants [29]. Here, leadership is investigated in terms of the interviewed respondents’ perceptions of the project organization; how and why the partnership was designed in the way it was; and how this has affected the partnering process/realization of the partnership.

Consequential incentives are positive or negative incentives that make leaders and participants engage collectively. Examples of such incentives are issues of great importance to the participants, including the fact that the timing to solve a problem is right and/or that negative effects might arise if the incentives are not attended to. Commonly perceived issues, resource needs, and/or crises or threats are examples of consequential incentives for the development of collaborative initiatives [29]. This is captured by the interviewed respondents’ views on prevailing trust among partners, a previous policy failure (i.e., unsuccessful management and/or implementation), or a previous successful collaboration. It could also be an area/resource with a high level of conflict or an issue/area that otherwise would not be handled. Disagreement on the knowledge base and possibilities for receiving funding are also seen as consequential incentives.

Interdependence is the driver when individuals and organizations cannot achieve their objectives on their own [7]. Emerson et al. [29] (p. 9) expressed it as, in a sense, “the ultimate consequential incentive”. This is particularly prevalent if many actors are affected and dependent on each other and therefore, is captured by responses regarding the number of actors affected and the shared responsibilities and engagement among the partners in the partnership.

Uncertainty can drive parties to collaborate in order to reduce, spread, and share risk(s). Uncertainty constitutes a particular challenge when managing “wicked” societal problems (such as environmental and sustainability issues) [29]. This is captured by the respondents’ perceived presence and the level of shared risk among the partners in the partnership in handling issues related to the environment and to natural resource management in a more holistic and sustainable way.

3. Materials and Methods

Research Design, Study Area, and Background Context

This study builds upon 38 semi-structured interviews with representatives from environmental PPPs in the Swedish mountain region (see Reference [21] for an in-depth description). The mountain region is here geographically defined by the 15 so-called mountain municipalities (see Figure 1).



Figure 1. The mountain region (dark green area) of Sweden (light green area) extends over 15 municipalities in four counties: Norrbotten, Västerbotten, Jämtland, and Dalarna.

The 15 mountain municipalities cover an area of more than 155,000 km² (of which 13,000 km² is water), constituting nearly 30% of Sweden's total area. These municipalities currently contain less than 1.5% of the Swedish population of about 10 million people [30]. Bare mountains above the tree line cover about 20% of the region, and forests cover about 50% of the region. The rest of the area is mostly covered by wetlands. [31,32]. Large parts (about 11%) of the mountain region are formally protected as nature reserves or national parks [33]. Conventional forestry is practised on virtually all productive forest land owned by non-industrial private forest owners, forest companies, and by the state. Eight of the twelve large river systems are used for hydropower production. Land-based wind power production and the mining industry are currently expanding. Tourism and recreational activities (fishing, hunting, hiking, snowmobile driving, skiing, etc.) involve all types of land, and their use of this land is based on property rights and the right of public access in non-commercial as well as in commercial contexts. Reindeer husbandry is ongoing across the entire mountain area, and the Sami have both cultural rights and rights to self-determination in the mountain region, as the region constitutes a central part of the Sami traditional territories [34]. Consequently, it is obvious that nature and natural resources in the mountains are used for many purposes by numerous actors; this calls for coordination and collaboration [35,36]. However, the fact that the 15 rural municipalities that constitute the mountain region suffer from shrinking populations and diminishing financial resources makes it difficult to work strategically and take concrete actions with regard to natural resource management to achieve positive and sustainable societal development [35–37].

The semi-structured interviews were conducted from 2014 to 2016 (see supplementary material for interview manual). The random selection of the projects for further analysis originated from an extensive quantitative analysis of detailed information on 245 funded projects, all aimed at public–private collaboration in natural resource management in the four counties in the mountain region. For more information on the original compilation of the database of these 245 projects, see Eckerberg et al. [38]. The selection of the respondents, who represented the 38 environmental PPP projects, was based on official information from project leaders/contact persons. They represented a mix of public (14 respondents) and private actors (24 respondents) (see supplementary material for information on the respondents). All interviews were transcribed (following Reference [39]). To validate the study, the respondents were given the opportunity to read the transcribed interviews and to clarify and/or adjust their responses, but none of the respondents made any alterations (see Reference [40]).

The interviews were read in-depth and coded based on the questions/alternative responses and themes of the interview manual. They were then compiled according to contextual variables and the four essential drivers described above, i.e., *leadership, consequential incentives, interdependence,*

and *uncertainty*, (see our operationalization of the drivers in the previous section and the interview manual in the supplementary material). To allow for discussions and conclusions regarding the general patterns and trends of the main drivers for PPPs on natural resource management, rather than providing in-depth descriptions of single PPPs and “hot spot analyses”, the 38 projects were handled and analysed collectively, and this is presented in the results section. To illustrate and make the analysis transparent, representative quotes were identified and extracted, and these are displayed in the results section. No secondary data were used.

4. Results

The results section is organized in line with the four essential drivers for PPPs, followed by an analysis of the differences in drivers among the PPPs based on the themes for the collaborations. The section ends with a short note on the use of PPPs.

4.1. Leadership

In concurrence with Eckerberg et al. [38], this study found that voluntary organizations (76%) and municipalities (89%) were the most frequently represented partners in the 38 studied PPPs (Figure 2). According to the responses, different types of private companies take part in more than half (55%) of the partnerships. Nearly the same extent (53%) of, primarily, individuals, along with universities and foundations in the “Other” category, were stated as playing important roles in the collaborative efforts.

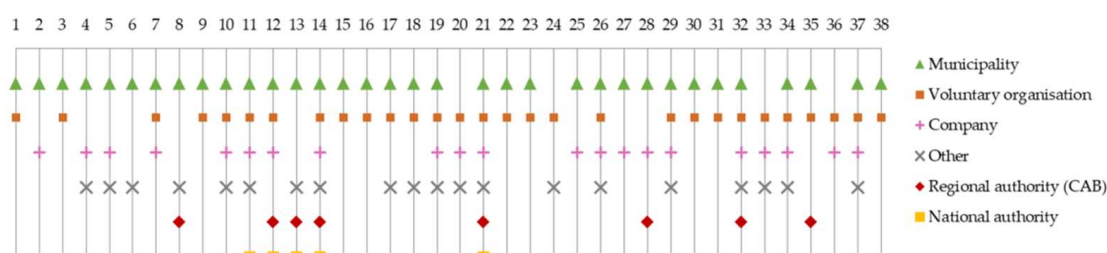


Figure 2. The partners in public–private partnerships (PPPs) related to environment and natural resource management in the Swedish mountain region ($n = 38$). PPP projects 1–7 were carried out in Norrbotten County, 8–18 in Västerbotten County, 19–31 in Jämtland County, and 32–38 in Dalarna County.

In most of the identified PPPs (39%), a voluntary organization was the initiator, followed by companies (26%), and municipalities (21%), which is in line with Eckerberg et al. [38]. The “Other” category (21%) had a mix of initiators such as municipal associations, universities, and other organizations or foundations (Figure 3). In 45% of the projects, the initiator was considered to be an enthusiast, while 47% of the projects were initiated as part of regular duties. For the rest of the projects, no information regarding this aspect was provided.

It was rather difficult to obtain a more general picture of project organization within PPPs from the conducted interviews. Most PPPs can be assumed to have some kind of formal steering committee or group, and this was commonly briefly mentioned by the respondents. The work of a project leader/coordinator and of active working groups and/or engaged individuals was more frequently described. Informality in project organization was widely applied. The main underlying reason for the applied, informal organization was stated to be “local conditions”, including informal networks, geographical conditions, and aspects related to local traditions:

“... it was not really in practice as it was formally stated in the application. [...] The steering group was initially engaged in many parts (of the work) and they were meticulous about results, but they let go relatively early on because it worked by itself”. (Interview 29)

“No, there is no steering group. [. . .] we don’t have regular meetings, but deal with things simply if needed. [. . .] There are so few people involved so there is no need for long debates”. (Interview 13)

“It has been mostly informal [. . .] she (the project leader) has been working with people that she knows are active. ‘Okay, you’re going there, but then maybe you can check this track?’”. (Interview 8)

“The team I have cooperated with is fantastic, and they had already anchored this in the area. Before they came to us (the municipality) they had already talked about which of the village teams were interested and which tracks were relevant (to restore) . . . so then we just sat down to write the application. [. . .] Every village team has been designing its own track and drafting an action plan for it”. (Interview 30)

The interviews suggest that enthusiasts—a few engaged individuals or one active part (often a voluntary organization)—are crucial for initiating and carrying out the planned activities within the project:

“ . . . as I’m the driving force, I ended up . . . Well, I have done a large part of the job myself”. (Interview 23)

“But it’s just that the enthusiasts see it, but then to persuade people, that’s something else . . . ”. (Interview 32)

In 26% of the PPPs, the project organizations were said to depend on partners with various capabilities and opportunities to invest time and resources to the collaboration:

“ . . . the tourism entrepreneurs (and the Sami entrepreneurs) who weren’t in the area, there it was some problems with distance . . . ”. (Interview 1)

“The authorities have participated and [. . .] (organizations and larger companies in) the tourism industry . . . they have participated the whole time. Then there are small entrepreneurs, but they don’t always have the resources to participate and be at every meeting”. (Interview 22).

As mentioned, municipalities are partners in over 80% of the studied PPPs. Some quotes illustrated their roles:

“ . . . what we (the municipality) experience concerning projects, in general, is that there are lots of ideas and initiatives, but that no-one wants to do the administrative accounting so we try to facilitate it, as much as it is possible”. (Interview 28).

“ . . . (the municipal project leader) is the administrator. It has been a way . . . The municipality has always been the one to help to apply for LONA-projects, to have (financial) liquidity and such . . . ”. (Interview 30) and

“It is not certain that this project would have become if I (municipal official) had not been there as . . . not so much a carrier of ideas, that part was accounted for by the voluntary organization, but as an intermediary or the possibility to apply for grants”. (Interview 24).

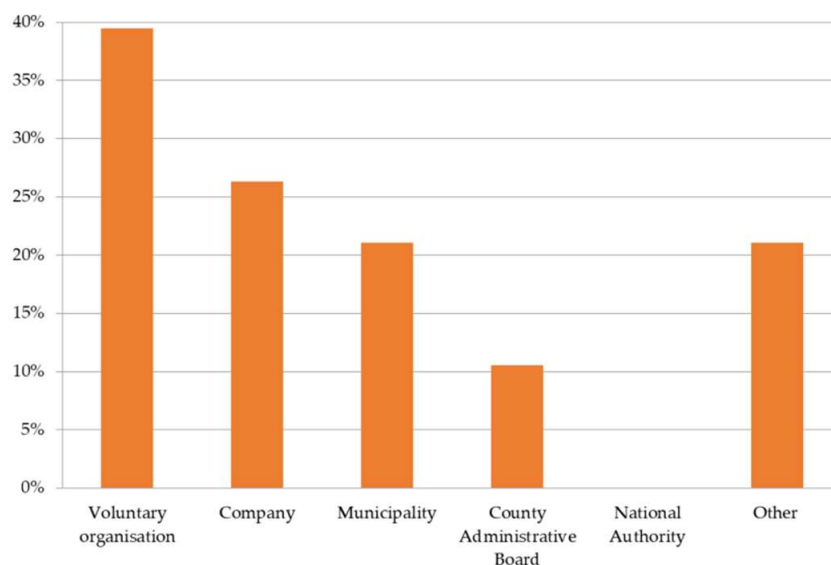


Figure 3. The initiators of PPPs on environmental and natural resource management in the Swedish mountain region. Note, some projects had more than one initiator.

Accordingly, in this context, the municipalities help to fulfil the requirements with regards to the public part in order to apply for funding and to act as administrators, i.e., they act as facilitators for the partnership (cf. Reference [8]). They also provide economical “safety nets” when it comes to liquidity since there can be a delay in the disbursement of funding. Thus, the driver of leadership—related to how the partnership was designed—appeared to be prevalent in most of the studied PPPs.

4.2. Consequential Incentives

Regional authorities, almost exclusively, the County Administrative Boards (CABs), play vital roles in regional funding (39%) and in the allocation of EU (37%) and national (24%) funding to environmental PPPs (Figure 4).

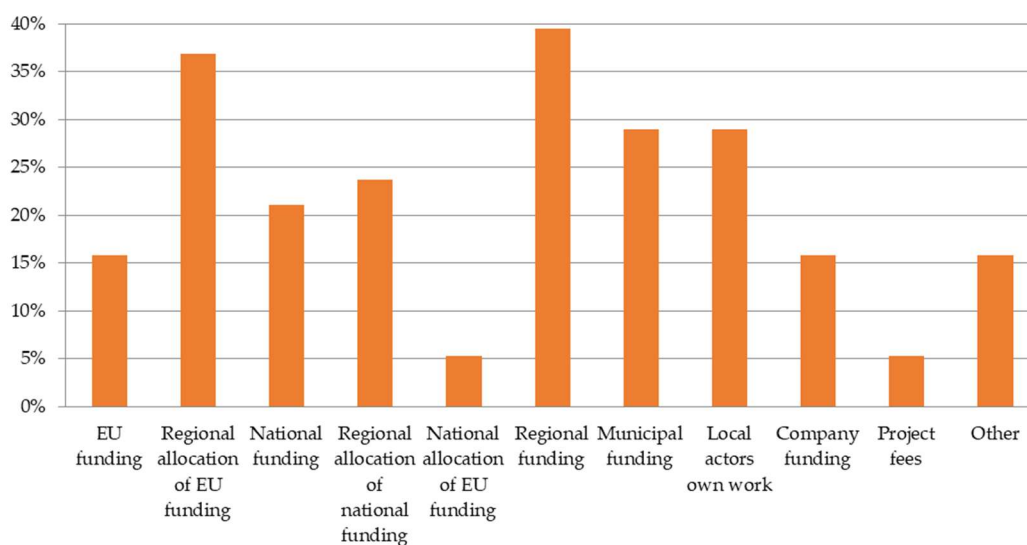


Figure 4. The funding sources for PPPs related to environmental and natural resource management ($n = 38$) in the Swedish mountain region. Most projects are funded by more than one source.

Figure 5 illustrates the combinations of funding in the 38 environmental PPPs. The PPPs with the regional allocation of national funding are all financed by SEPA (the Swedish Environmental

Protection Agency) through LONA (the Local Nature Protection Program, supporting local initiatives in nature conservation and recreation as they emerge from the local social context). LONA funding can be applied for by municipalities and local social partners, such as environmental and cultural organizations [41]. The EU Rural Development Program LEADER (Liaison entre actions de développement de l'économie rurale), is an approach that contributes to rural development by forming partnerships at a sub-regional level among the public, private, and civil sectors. A partnership is a prerequisite for retaining funding (cf. [38]). LEADER financed 11 of the 14 projects with a regional allocation of EU funding in this study.

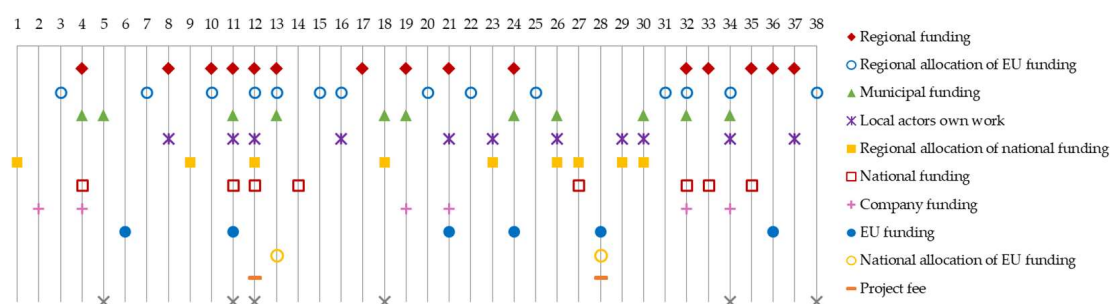


Figure 5. The combinations of funding in PPPs related to environmental and natural resource management in the Swedish mountain region ($n = 38$).

Figure 6 shows that the possibility to apply for external funding (50%) and the fact that the collaboration addresses an issue or area that would otherwise not be handled (42%) were the most commonly described reasons for initiating PPPs (i.e., the most common answer to the question “What was the triggering reason for choosing collaboration?”). Thus, consequential incentives appear to have been a very important driver for the studied PPPs:

“... when we saw that there was money, we applied for a project [...] our municipalities are so poor that we need (externally funded) projects if there is to be anything ...”. (Interview 9)

“... the need had been identified long since, [...] and when the money came, there was a possibility that this would fit, and then we started to work. Often, the issue is to find funding”. (Interview 27)

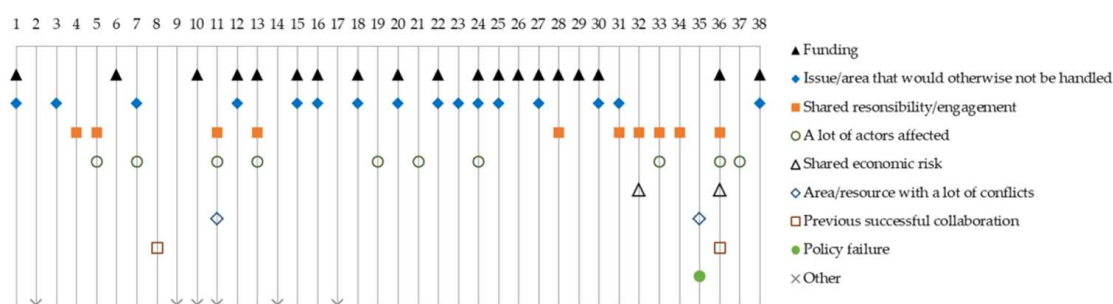


Figure 6. The catalyst reasons for initiating and implementing PPPs related to environmental and natural resource management in the mountain regions ($n = 38$).

Because the respondents often gave spontaneous presentations of previous and/or general circumstances, an attempt was made to present a contextual background (underlying reasons) for initiating and implementing the PPP projects (Figure 7). In 47% of the projects, the addressed PPP was clearly a result of previous successful collaboration(s):

“This is a long history, but the origin is a former restoration project ...”. (Interview 6)

“Our local project is an offshoot from the national project where our goal simply was to cooperate concerning the marketing of Swedish sports fishing tourism”. (Interview 18)

“And then there were spin-offs from these projects, so this particular project [. . .] is just one of these projects”. (Interview 35)

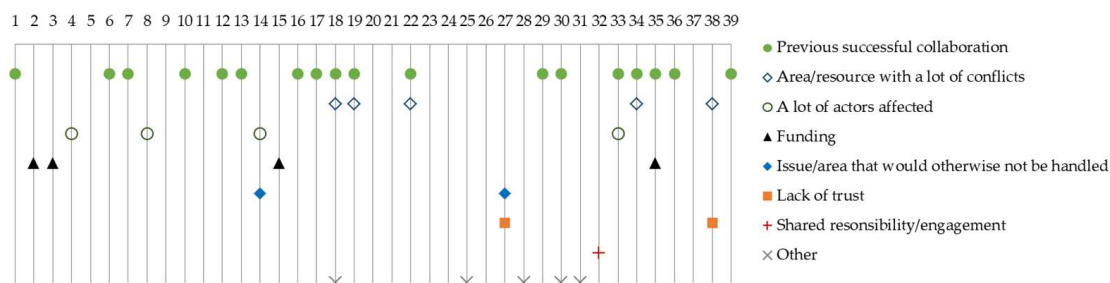


Figure 7. The contextual backgrounds (underlying reasons) for initiating and implementing PPPs related to environmental and natural resource management in the Swedish mountain region ($n = 38$).

The handling of an area/resource with a lot of conflicts and/or lack of trust was stated to be an underlying reason in merely six of the 38 PPPs, and this was almost exclusively in combination with a previous successful collaboration.

4.3. Interdependence and Uncertainty

Regarding interdependence, the most commonly cited reasons for initiating PPPs were shared responsibility (26%) and the fact that a lot of actors were affected by the purpose of the collaboration in one way or another (26%). Most often, these reasons were mentioned in combination with one or more other drivers (Figure 6).

Closely aligned to interdependence is the driver of uncertainty, but shared risk, in form of shared economic risk, in this case, was only put forward as the main reason for initiating the PPP in two of the studied PPPs. Our results thus suggest that reduction, spread, and/or sharing of risk, i.e., the driver of uncertainty is not central for PPPs aimed at environmental and natural resource management in the Swedish mountain region.

4.4. Differences in Drivers for PPPs

The PPPs related to environmental and natural resource management in the Swedish mountain region can be grouped in terms of the theme of the collaboration (i.e., the issue/area), for example, climate and energy, fishing, forest, hunting, landscape, local development, mining, nature and culture, nature protection, (collaborative) process, recreation, Sami and reindeer, tourism, tracks and access, water, and wind energy (see Reference [38]). In the database of the 245 projects, several themes could be attached to a project, but in this paper, we refined them and only associated one main theme with each of the 38 PPPs (see Figure 8). This was for analytical purposes, i.e., so that we could link drivers to specific themes.

The vast majority of the 38 projects concerned concrete actions or measures. The most common theme, which was present in about one-third (31%) of the projects, was collaboration on the development and improvement of tracks and access to nature/the landscape (Figure 8). Some PPPs were formed to develop or to restore values or facilities/constructions for tourism, nature and culture, water, and fishing. In many of these projects, recreation was an important additional theme (but not the main one, and thus, not a theme on its own in Figure 8). PPPs with process and the landscape as their main themes (18%) were focused on goals related to process development and dialogue. A few of the projects aimed to produce a product of some kind, e.g., a plan/program linked to climate and energy or nature protection, or a destination to generate local development.

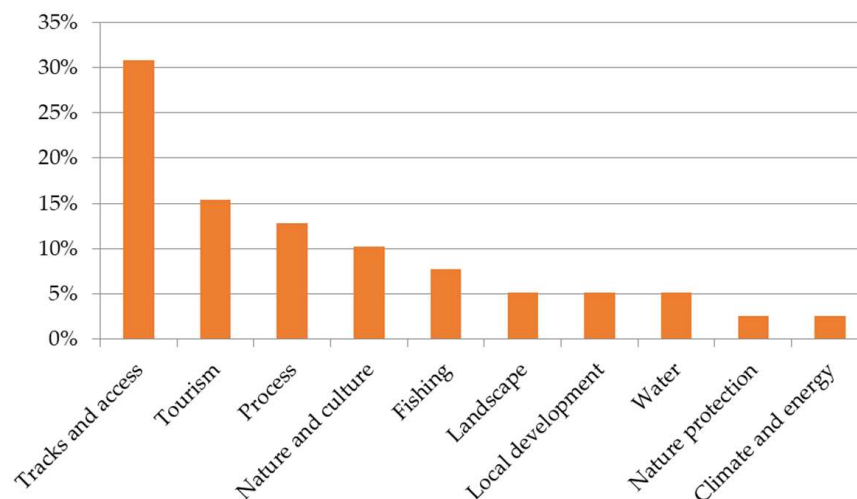


Figure 8. The main thematic focuses of the 38 PPPs related to environmental and natural resource management in the Swedish mountain region.

We did detect some differences in the drivers of the PPPs based on their different themes. Among the projects with nature and culture or nature protection as their main theme, the respondents all stated that the PPP deals with an issue/area that would otherwise not be handled and 60% of them highlighted the availability of funding as a central reason. Among the tourism-related PPPs, 67% were described as being driven by the fact that a lot of actors are or need to be involved. For projects concerning tracks and access, the most common theme was driven both by the available funding (67%) and by the fact that the issue/area would otherwise not be handled (50%). The results did not show any consistent reason(s) for collaborations on the process. There were few PPPs related to landscape or local development, with the single most important reason for collaboration stated as being shared responsibility and/or engagement. Regarding PPPs with landscape as their main theme, a lot of actors were also stated as being affected. Altogether, the results indicated that depending on the issue/area at hand, different drivers are at play when initiating and implementing environmental PPPs.

4.5. The Usefulness of Environmental PPPs

In concurrence with an earlier study by Bjärstig [21], based on the same interviews, our coding of the interview material showed that almost 58% of the respondents stated that their PPP had fulfilled its goals, and nearly 16% claimed that they had partially fulfilled them. In 18 (close to 16%) of the PPPs, the goals were not perceived to have been reached, while 10.5% of the respondents did not answer or left an inconclusive answer regarding goal fulfilment. Our results imply that out of the PPPs that had not reached their goals or who did not leave an answer/left an inconclusive answer, PPPs with more process-oriented goals; those with (collaborative) a process or landscape as their main theme were overrepresented (60%). Indeed, only one of the PPPs with a process as its main focus was perceived to have fulfilled its goals, suggesting that projects aimed at concrete measures are easier to evaluate than those with process goals. It is not unambiguous to draw conclusions with regard to the relationship between project drivers and goal fulfilment, but it should be mentioned that funding, as a consequential incentive, was not a primary driver for any of the PPPs that had failed to achieve their targeted goals. Furthermore, previous successful collaboration was only stated as an intermediate reason by one of these PPPs.

To summarize our results, it is clear that the initiation and implementation of PPP projects related to environmental issues and natural resource management in the Swedish mountain region most often engage a few enthusiastic actors. The PPPs often have an informal and pragmatic organization due to local circumstances and/or limited resources. The PPPs mainly aim for, and succeed in, conducting practical and concrete (outdoor) measures. Forming a PPP offers the possibility of accessing external

funding, primarily EU funding, for activities and measures that voluntary organizations could not otherwise afford and that municipalities would not prioritize within their own budget.

5. Concluding Discussion

This study showed that consequential incentives constitute the most prevalent driver for initiating and implementing collaborative partnerships in environmental and natural resource management in the Swedish mountains, where funding, previous successful collaboration, and areas/issues that otherwise would not be handled stand out as the main reasons for the partnerships. Furthermore, leadership was shown to be an important driver, where the administrative capacity of municipalities and the presence of enthusiasts are of particular importance. Interdependence and uncertainty are less obvious drivers in environmental PPPs in a rural mountain context. This could be because many formal, mandatory, and institutionalized collaborations have already been instigated by law in high-level conflict issues/areas (such as hunting, land use planning, water management, etc.), putting less pressure on the formation of voluntary PPPs in such areas of high uncertainty and potential conflict (cf. Reference [38]). Thus, the studied PPPs were mainly “win-win” collaborations, where the involved actors all have the potential to gain and have little to lose. This concurs with the conclusions drawn by Zachrisson et al. [22], who stated that authorities initiate PPPs to solve conflicts and when there is distrust, while private actors build on previous successful collaborations to conduct straightforward and action-oriented PPPs.

The organization of projects in the form of PPPs is a prerequisite for access to some of the funding sources, especially EU funding, providing an important reason for so many municipalities to engage in PPPs. The involvement of municipalities also becomes essential for other reasons, namely, to provide leadership, administrative support, and accountability. Concerning leadership, however, we also saw many projects that were largely driven by a project leader and/or enthusiast alone, or that at least would not have materialized without this individual leadership. Indeed, the role of individual “fire-brands” in initiating bottom-up projects for sustainability actions is commonly cited [42]. The need to also mobilize additional resources from collaborating partners to provide the necessary public as well as private co-financing is evident, where the workforce and working hours of the private partners can also provide important assets. Often, the implementation of the PPPs is both informal and based on pragmatic concerns within the community context, partly because there are so few engaged actors and very long travel distances to other relevant stakeholders within the mountain region. Formal routines for a steering group to guide the project and to provide for systematic accountability along the project process (other than that required by the funding body), become difficult in this context. The scarce availability of resources, both in terms of personnel, time, and financing, therefore, makes the PPPs a somewhat ambiguous governance tool in this particular context (cf. Reference [8]).

In this study, we asked whether the drivers differ among environmental PPPs, and if so, how? Previous research of collaborative project governance in this region has found notable differences among the four counties in terms of the kinds of issues addressed as well as the partners included [40]. Interestingly, in this study, we did not see any significant differences among the counties in the mountain region with regard to the essential drivers. Still, and supported by previous research, we noticed that the PPPs in Dalarna were initiated due to both previous conflicts and the need to share economic risks to a higher degree than in the other counties, and had, as an intermediate reason, the lack of trust among partners, i.e., more of the independence and uncertainty drivers (cf. Reference [22]). However, we detected some differences among the drivers for PPPs related to the issue/area (theme) of the collaboration. All projects with nature and culture or nature protection as their main theme were stated to deal with an issue/area that would have otherwise not been handled, and the great majority of them highlighted the availability of funding as a central reason. This result shows the substantive influence of the funding emanating from the Local Nature Protection Program that has spurred on many small and rural municipalities, including in the mountain region, to protect and provide public access to local nature areas where they would otherwise not have had the needed resources to take

action [41]. Thus, in terms of a consequential incentive, funding acts as a very important driver. However, focusing on funding opportunities as a primary base for a PPP constitutes a certain risk since economic incentives could turn the focus away from collaboration and the pursuit of shared goals. This did not seem to be the case in the studied projects; however, we advise caution, in line with Smith and Thomasson [43]. Regarding PPPs with tourism, landscape, or processes as their main theme, a vast number of actors were affected and engaged as partners in such partnerships, indicating that drivers such as interdependence and uncertainty also became highly relevant drivers for initiating and implementing those PPPs.

Another central question for this study was whether the PPPs were useful, and for what? Overall, the studied PPPs appeared to be complementary to other types of more formal and top-down initiated collaborations, and they mainly provide a way to “gets things done that otherwise would not be done”, largely by enabling the partners to access external funding. It is also clear that the majority of the studied projects were action-oriented and practical projects (where the participants restore tracks, build a shelter, etc.). These projects were perceived to have fulfilled their objectives to a high degree (cf. Reference [21]). However, the few projects that were more of process/dialogue-oriented did not seem to achieve their goals to the same extent. This is a reasonable result because processes and dialogue can take more time; often there is no clear finish line, rather the continuance of the process is what is desired.

The analytical framework of essential drivers, as presented by Emerson et al. [29], was useful for analyzing the possibilities and limitations of PPPs for sustainable resource management in rural mountain areas. It provided new insights into both the partnering process/initiation and the implementation of the environmental PPPs in relation to the specific regional context. To summarize, our case study of the Swedish mountain region showed that the mountain municipalities have an important facilitating role with regard to the leadership driver. Furthermore, we identified consequential incentives as being a major driver for most of the PPPs, where funding, a previous successful collaboration, and the presence of an issue/area that otherwise would not be handled stood out as the main reasons. Shared engagement and responsibility were also put forward by the respondents to some extent, suggesting that interdependence and uncertainty are indeed important drivers, but often function as intermediate drivers and/or in combination with the two main drivers: leadership and consequential incentives. This finding is novel and adds important insight into the environmental partnership literature regarding the drivers for PPPs in relation to the specific contexts, socio-economic factors, and institutional realities that are prevalent in geographical areas similar to the Swedish mountain region. In particular, it helps to problematize the tendency in the literature on PPPs to emphasize the positive aspects of partnering and highlight the successful outcomes while downplaying how challenging it can be to establish a collaborative culture [44]. We, therefore, argue that further studies are needed that not only focus on projects with “positive” outcomes, but also on less successful ones, especially on those involving more long-term processes and continuous dialogue among public–private partners.

In addition, future research should be designed so that the drivers can be assessed in relation to one another, for example, indicating which of the four factors—uncertainty, interdependence, consequential incentives, and leadership—are necessary and sufficient to spur collaborative environmental and natural resource management efforts (cf. Reference [45]). An even larger sample of PPPs would allow the testing of hypotheses about the interdependence between and/or causal mechanisms with regard to those drivers. In particular, our understanding of the necessary prerequisites for the initiation of environmental PPPs in rural areas with a capital-weak private sector, such as that which is prevalent in mountain regions, needs to be strengthened. A previous study by Bjärstig and Sandström [8] showed that PPPs in a rural context differ in terms of their stated objectives. This difference implies that the partnerships will take different forms and will involve different sets of actors. Furthermore, their results indicate that public and private actors engage in partnerships on different terms. The public actors engage them as part of their regular work duties, while private actors, including civil society

representatives, need to take time off from work and thus, may lose income due to their engagement in the partnership (cf. Reference [8]). More in-depth studies of these aspects in relation to environmental partnerships would add to the understanding of how to make these partnerships sustainable in the long-term. By broadening the scope to include more regions and additional environmental and sustainability problems, knowledge on what drivers for PPPs work under certain conditions could be substantially improved. A critical discussion of the benefits and constraints of environmental partnerships would add important insight into that discussion.

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