# IMPLEMENTING COLLABORATIVE PLANNING IN THE SWEDISH MOUNTAINS – THE CASE OF VILHELMINA

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ABSTRACT

Critical appraisals have stressed the need for participation and social learning in spatial planning, and planning is now seen as a process of innovative collaboration by multiple actors. During such "collaborative planning", various parties try to develop new inclusive strategies through dialog. Collaborative planning is a major strand of current planning theory and highlights the need for new methods that involve citizen participation. In Sweden, the realization of collaborative planning in practice remains elusive, and research on the subject is limited, so further studies are needed. Thus, in the project "Green planning: Vilhelmina as a testbed for innovative land use planning in the mountain region", we tested and implemented methods for involving citizens and other land-use stakeholders in the process of developing Vilhelmina municipality's comprehensive plan (MCP). This paper presents lessons learned from that process and data obtained from a set of focus groups, a workshop, surveys, and personal communication. From these activities in the Swedish mountain region, we learned that collaborative practices have both pros and cons that must be addressed for practical realization of the widely embraced ideal of collaborative planning.
*Keywords: collaborative planning, focus groups, stakeholder participation, participatory GIS, comprehensive planning, sustainability, landscape, Sweden.*

## 1 INTRODUCTION

A need to increase participation and social learning in spatial planning has been advocated since the 1960s [1], [2], and planning is now seen as *"a process of innovative collaboration among different actors"* [3 p. 107]. In such 'collaborative planning' [4]–[6], various parties try to develop new inclusive strategies through dialog. As a major strand in current planning theory, collaborative planning highlights the need for new methods that involve citizens [7]. In Sweden, citizen involvement in the development of a municipal comprehensive plan (MCP) is stipulated by the Planning and Building Act [8]. The legislation requires preparation of a draft plan for consultation with citizens of the municipality, public authorities, associations, and other individuals who have a significant interest in the plan [8, Chapter 3, §9], [9, p. 182], [7]. A survey in 2003 of 94 planners from 20 different Swedish municipalities indicated that the municipalities generally favored citizen participation. However, citizen involvement in planning decisions was met with reluctance [10]. A recent study of wind power planning also revealed that the degree of participation allowed differed significantly among municipalities [11]. Similar results have been found in small-scale in-depth studies (e.g., in Rosengård township of Malmö city, south Sweden [12]). A recent study showed that the essence of sustainable development is neglected in the planning of sustainable spatial development and land use in Sweden [13]. These few studies suggest that implementation of collaborative planning in Sweden is limited, and further studies are needed [14], [15].

The mountain region in Sweden is a suitable arena for studying collaborative planning as there is large public support for increased local influence in land-use related issues, such as nature conservation [16], large carnivore management [17], tourism development [18], and establishment of wind power parks and mines [19]. We attempted to implement collaborative

planning in practice in the transdisciplinary project "Green planning: Vilhelmina as a testbed for innovative land use planning in the mountain region", which addressed knowledge gaps in relevant literature and practice. Together with the Vilhelmina municipality board, we applied collaborative techniques to gather new, innovative, and local knowledge in the initial phase of the MCP-process. Citizen involvement is optional in the early planning process; hence this approach explores a specific innovative segment in the context of the MCP. This paper assesses the collaborative planning design and efforts in Vilhelmina municipality, specifically addressing two questions. What collaborative planning process criteria are required for securing a knowledge-based planning process, and what are the pros and cons of increasing citizen and stakeholder participation early in the MCP-process?

## 2  COLLABORATIVE PLANNING

Previous research has shown that citizen involvement in the planning process can build trust, generate credibility/legitimacy, and commitment to policy implementation, as well as social capital [20], [21]. Including key actors "early, frequently, and continually" establishes a sense of ownership among these actors regarding plans' contents, thereby reducing potential conflicts in the long run, as the actors involved are responsible for the policies [22], [23]. Further, organizations and individuals provide valuable local knowledge and innovative ideas about society and various benefits that can increase plans' quality and sustainability [24]–[26]. Initially, increased participation may increase time and resource requirements, but pay dividends in terms of agreements on policy and its implementation. Moreover, relatively fair results and correspondingly robust solutions help to protect stakeholders' long-term interests [27]. However, increased participation in the planning process can lead to conflicts, which escalate during meetings between conflicting parties. Critics also highlight risks of slower decision-making increasing frustration of responsible planners (an effectiveness versus legitimacy/anchorage conflict). Further, the final product (plan) may be weakened by attempts to balance different interests, leading to the lowest common denominator (rather than clear priorities) being agreed [24], [28]. Some studies have problematized participation based on citizen expectations of the outcomes associated with their participation. For example, gaps between citizens and politicians can increase, as citizen participation challenges representative democracy [29]. Thus, roles and mandates of participants in the planning process (i.e. information, consultation, dialog, influence or co-decision, see [1], [30]) must be clearly communicated. The pros and cons of participatory planning have been handled in various ways in different studies and several recommendations for addressing these weaknesses have been made. Several factors that planners (or other authorities) must consider when designing a participatory planning process have also been identified and evaluated, leading to recommendations for legislation to set the following requirements for municipal planning [31]:

- Administration: A plan of participation that describes the handling of citizen involvement should be developed and special staff appointed to address it. The plan should provide guidance on when participation is required and each official's role in the process. This allows citizens and interest groups to prepare in advance rather than having to react, for example, to a newspaper announcement.

- Objectives: The participation plan must have clear goals adopted by the city council, after a social debate regarding citizens' role in the planning process. The goals can range from educating citizens to citizens conveying preferences and/or being granted formal influence on decisions. More importantly, the purpose of the participation process and the participants' roles and mandates must be clearly communicated to avoid conflicts and disappointments in later stages.

- Stage: Systematic participation must start from the beginning, precede every important decision, occur in the pre-planning or vision stage, in the choice of goals and alternatives, and when the final proposal is reviewed and adopted.
- Targeting: The participation plan should target relevant stakeholders (e.g., representatives of environmental organizations, business organizations, and housing in relevant regions). They should be invited via direct contact and encouraged to provide feedback to their organizations, to reconsider their views in joint meetings.
- Methods: The participation plan should include diverse types of participation. Public hearings should be supplemented with, for example, workshops, committees, focus groups, and questionnaires. Some methods can be used for one-way communication, others for collecting views or two-way dialog.
- Information: The participation plan should provide citizens and stakeholders with all information, planning data, and proposals throughout the planning process. The more complete the information they have, the more informed their participation will be. Traditional media should also be complemented by digital information channels.

We have applied these recommendations, but also leaned against a framework for a landscape approach in planning [32] and widely used criteria for participatory research [33]. The principles in the frameworks overlap, and most form process criteria that correspond to the requirements of collaborative planning. In the initial phase, key individuals and groups should be identified to reflect ranges of interests and activities in the focal region. Local leaders should be committed to mobilizing interest groups and citizens. By working to find common visions and goals, trust is established between different actors. A multi-level perspective is also important [32]. As several stakeholders are involved, they must be committed fairly and transparently, and any conflicts must be addressed. This is achieved through the facilitator or moderator ensuring that certain rules are observed (e.g., attentive listening, compassion, everyone being able to express themselves, and mutual respect). Researchers or other third parties (perceived as "neutral") can act as catalysts, facilitators, and/or consultants, i.e., in roles required for successful deliberations [33]. A process based on these principles provides learning that strengthens stakeholder capacity, and ultimately the sustainability of the process and its outcomes. We have merged and adapted principles described in these studies [31]–[33] in the design of the model used for the collaborative planning in Vilhelmina municipality reported here (see Section 4 where we assess the model).

## 3  METHOD AND MATERIAL

### 3.1  The green planning project – case description and rationale

"Green planning: Vilhelmina as a testbed for innovative land use planning in the mountain region" was a transdisciplinary project focused on improving the knowledge-based, inclusive, and anticipatory character of Swedish MCPs by using available landscape monitoring data and collaborative planning methods. Conventional approaches lack policy tools that can incorporate multi-level and cross-sectorial perspectives in a multi-functional landscape, such as the Swedish mountain region. We used Vilhelmina municipality as a testbed to determine how green planning and a landscape approach can be integrated and implemented, while identifying barriers to collaborative innovative land use planning in the mountains. By increasing different stakeholders' and citizens' participation, the goals were to: improve the planning process and MCP, influence state decisions by safeguarding a common local understanding and strengthening ability to influence state decisions and

develop a tool for effective and sustainable management of the overall landscape. This included an education component aimed at increasing citizens' knowledge of the MCP, particularly the impact of municipal plans and political guidelines on their immediate environment, outdoor activities, and development opportunities. We extracted and suggested collaborative planning components, as well as methods and tools for increasing the effectiveness and legitimacy of processes that will be adapted and implemented in the MCP. This allowed us to develop a model describing collaborative work that yields a green MCP. Notably, this model can be scaled up and shared with other mountain municipalities, or other natural resource-rich rural municipalities in Sweden and could be internationally relevant in different types of regions with similar planning contexts.

Vilhelmina municipality covers 8740 km$^2$ (water covers 670 km$^2$ of this area) and has ~6700 inhabitants (population density: 0.8 inhabitants/km$^2$), ca. half living within a few km of Vilhelmina city centre (Fig. 1). It has a long history of different types of land use. People (fishermen, hunters, and reindeer herders) have resided there since 8000 BC. In addition, ~16% and 60% of the municipality surface area is formally protected (mainly as reserves in the mountain area) and considered of national interest in some regard, respectively. Over 4000 km$^2$ is covered by forests. Modern forestry was introduced relatively late, in 1958, when the first clear-cut was registered by the Swedish Forest Agency. Nowadays, commercial forestry is conducted on nearly 80% of the forest land [34]–[36]. Large parts of the Ångermanälven basin within the Vilhelmina municipality have been affected by timber rafting that, to some extent, continued until the 1980s. Several hydropower plants, with dams in the river and its tributaries/streams, were built between 1940 and 1990 [37]. There are still few wind turbines, but interest and plans have been expressed and presented, respectively, for large wind farms in both the municipality and bordering regions. Today, there is no mining in Vilhelmina municipality, but in Stekenjokk (close to the Norwegian border) there are traces of mining that ended in the late 1980s, and interesting mineral deposits in several places. Activities related to recreation and tourism are conducted throughout the municipality [38]. Reindeer husbandry is ongoing across the entire mountain region, including the municipality.

## 3.2 Collaborative planning activities

Our transdisciplinary team consisted of two political scientists, one ecologist, and a project coordinator. This team, four head officials from municipal departments, a Geographic Information System (GIS) coordinator, and two politicians representing the political majority and opposition parties in Vilhelmina, comprised the executive working group. Focus groups (FGs) formed the foundation of the collaborative planning process. These groups converged in two consecutive rounds (see Fig. 1 for the locations): four FGs in the first round, and three FGs in the second round. In total, 78 persons participated in the FGs. Participation of in the collaborative planning process was encouraged by visiting the prospective participants (rather than expecting them to travel to the community center).

This was considered particularly important for a geographically large, but sparsely populated municipality such as Vilhelmina. In cases where participants had to travel, or if their participation resulted in a loss of income, they were offered retroactive financial compensation based on a flat rate.

(a)                                    (b)                                    (c)
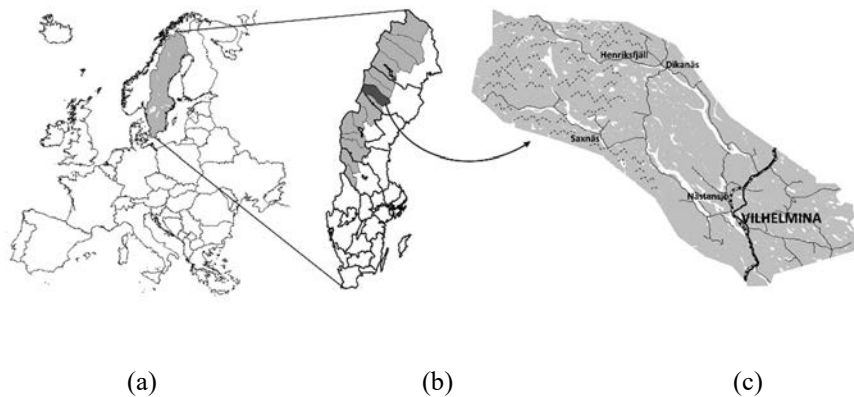
Figure 1:    (a) Map to the left display Sweden in a European context; (b) The map in the middle display the 15 mountain municipalities in Sweden (light grey) and Vilhelmina municipality (dark grey); (c) The villages in Vilhelmina municipality where we conducted focus groups are displayed in the map to the right.

However, these opportunities for compensation were only used to a limited extent. We facilitated the wishes and participation of citizens and stakeholders, by arranging meetings on days other than (for example) the moose hunt season, intensive reindeer herding periods, and Easter, Christmas, and summer holidays. Furthermore, we also conducted meetings at different hours (both daytime and evenings) to minimize conflicts with other events. To improve the representativeness and legitimacy of our FGs, meetings were only held if at least five participants had signed up in each case. A minimum number of participants was also important from the perspective of resource and efficiency associated with the project. Due to few registrations for participation, five FGs were cancelled (four in the first round, one in the second round).

To allow for confidence building among different actor groups and a common local understanding, most of the FGs were characterized by relatively heterogeneous interests, although one of the FGs considered only Sami interests. However, low interest among the targeted tourism entrepreneurs prevented the other attempted homogeneous FG. The mix of geographically based homogeneous and heterogeneous groups was aimed at providing an overall picture of geographic and thematic interests across the municipality. According to our initial plan, municipal politicians would constitute a separate FG. However, political representatives in the executive working group decided that this was implausible as the additional political meetings would incur excessive costs for the municipal administration. Consideration of these costs led to the decision that, rather than politicians acting in their official role in FGs, a workshop (WS) should be conducted midway between the FGs. To provide information about and discuss the process with a relatively large group of local politicians, this WS was held prior to the second round of FGs. Meetings with the researchers and municipal representatives in the executive working group, FGs, and WS were all documented by notes and, with the consent of the participants, photos. At the FGs and WS, after attendees gave their consent, the discussions and exercises were recorded with audio and video. Documentation from each FG was compiled in a written report based on a combination of notes, material collected during the exercises (discussed in detail in Section 4.5), and photos. These reports were important for providing an overall picture of the process

at the halftime WS, and to subsequently validate the content of the first draft MCP-document during the second round of FGs.

For the FGs, we developed and used a green planning (GP) GIS, i.e., a so-called "participatory GIS" (P-GIS), with the aim of making public and relevant data of spatial character available to a broad audience. This data can serve as a common basis for dialog and knowledge development regarding, for example, land and water use [39]. GP GIS is based on spatial landscape data adapted to the geographic area of Vilhelmina municipality and collected in a GIS based on an open access computer application.

As a complement to the FGs, we obtained the views and visions of a younger group of citizens (than those participating in the FGs) by conducting a survey of 40 high school pupils.

## 4 RESULTS

The presentation of our results follows the design principles for collaborative planning introduced in Section 2. The main results from each step of the process (see Table 1) are discussed in detail.

Table 1: Model for designing the collaborative planning activities and process (adapted from [31]–[33]) applied in the MCP planning process in Vilhelmina.

| Design principles for a collaborative planning process | | Aim | Activity and result |
|---|---|---|---|
| Administration | Inclusive strategies are described: identification of key actors/stakeholders, when to collaborate in the process, responsibilities of officials, and the potential need for a neutral facilitator. Process rules are set, i.e., attentive listening, opportunity for everyone to express themselves, and mutual respect. | Negotiated and transparent process logic, clarification of rights and responsibilities | Researchers, officials, politicians, and coordinator decided on MCP time frame, roles, and FG activities: Where, when, who, and how? |
| Objectives | Clear objectives for the process should be decided by the city council after a debate about the role of citizens in the planning process; Will participation allow citizens to be a part of the vision work, provide knowledge/support and/or allow real influence on planning priorities and decisions? | To establish common objectives and to build trust. | Researchers, officials, and politicians who have agreed on participation work to generate vision and knowledge, as well as to anchor the MCP as both a process and a plan. This was clearly communicated to FG participants. |
| Stage | Participation from the very beginning; collaboration prior to each important decision. | Continuous learning and adaptivity. | Participation prior to the final mandatory consultation, to improve knowledge in general and the guidelines in the draft MCP-document. |

Table 1: continued.

| Design principles for a collaborative planning process | | Aim | Activity and result |
|---|---|---|---|
| **Targeting** | Citizens and identified interest groups are invited through direct contact. They return questions to their respective organizations for feedback. | Multi-functionality by involving all relevant interests. | Many different ways of informing and inviting potential participants and survey respondents: local press, website, radio broadcast, local posters, social media, telephone, and e-mail. |
| **Methods** | Many different/ complementary activities and techniques. | To render new, innovative, local, and co-produced knowledge. | First round of FGs, GP GIS, survey, halftime WS. |
| **Information** | Participants are provided with planning data and suggestions during the entire planning process. | Strengthen the participant's capacity. | Second rounds of FGs and a halftime WS were conducted to bring back knowledge, as well as to validate and present FG input in the draft MCP-document. |

## 4.1  Administration

Vilhelmina municipality suffers from weak planning capacity and an outdated MCP, as in the case of most other Swedish mountain municipalities [14]. The project and support from the research team to develop a new green MCP were appreciated. Prior to the formal start of the project, a pre-planning meeting was held where we established the executive working group (consisting of researchers, the project co-ordinator, and key officials and politicians from Vilhelmina municipality board, see Section 3.2). Jointly, we developed a time and activity plan for the project and MCP-planning process. Our roles and responsibilities were discussed, and the pros and cons of FGs with stakeholders of mixed or conciliated interests were debated. We also identified geographical regions (i.e. villages and mountain valley districts) where citizen involvement exercises/FGs could be conducted. Other interest groups (indigenous Sami people, tourism, and forest entrepreneurs) who should be addressed in the planning process and invited to the FGs were also identified.

## 4.2  Objectives

The main goal of the representatives from the Vilhelmina municipality board, regarding participation in the green planning process, were to (i) engage citizens and land use stakeholders in the visionary work, and (ii) learn their preferences and collect local knowledge (rather than granting the citizens influence over the decisions that will be made by the municipality board). However, the present work was aimed at educating FG participants on the role of the MCP in general, as well as to use their input in forming the MCP, thereby rendering their participation worthwhile. This resulted in increased FG

participant understanding of the tool and possibility of influencing the plan. Thus, as researchers, the following was necessary: a clear articulation of (i) our mandate regarding facilitation of the process, (ii) the deliverables (i.e., what influence the citizens and other stakeholders could expect to have on the outcomes of the planning process), and (iii) the actions required to ensure that the participant input would actually make an imprint on the final version of the MCP. These actions include follow-up on the political process and active participation in the formal final consultation phase.

### 4.3  Stage

By law, final consultations and exhibition are mandatory components of the MCP process. However, the law requires only that citizens and other stakeholders are provided the opportunity to react to a draft plan. In this project we allowed for early collaboration in the visionary work performed during two rounds of FGs and one WS. During the FGs and the WS, we obtained input and gathered knowledge, as a basis for the compilation of the draft MCP-document, prior to the final consultation.

### 4.4  Targeting

We invited participants to the FG meetings in different districts and villages across Vilhelmina municipality via: open invitations in the local press, the municipality website, a radio broadcast, local posters in the districts we planned to visit, social media (e.g. Facebook), and local networks as well as personal contacts in or associated with these networks. With regards to specific interest groups, we targeted participants through direct invitation via e-mail and telephone to members of local organizations/networks. Based on our experience, we find that personal contacts and local networks generated the most participants.

### 4.5  Methods

As previously stated, the collaborative planning process consisted of two rounds of FGs, (see Fig. 1 for the geographical locations).

A first pilot FG, aimed at collecting data and testing the FG format, was conducted in Dikanäs (with more than 30 participants). Based on the results of this pilot, the structure was refined to a number of predetermined themes and topics for discussion. This refinement was aimed at increasing both the input from the participants and the usability of this input as a basis for compilation of the draft MCP-document. Furthermore, the use of individual paper maps was supplemented by the use of GP GIS that was screened onto a whiteboard, where changes and additions could be drawn.

During the pilot, an external moderator was engaged. The results of the meeting, and experience-based confirmation from municipality officer observers, were considered in the decision taken by the coordinator and researchers (considered external in relation to local government officials and politicians). These results should lead to future FGs, as an external moderator is perceived as more neutral than municipal officials and, hence, could derive the focus from "municipal business and function issues" more effectively. This concurs with previous research that identifies a neutral facilitator as an important component in collaborative planning processes.

The main purpose of the first-round FGs was to provide input for the development of an overall vision for the municipality. A secondary purpose was also to broaden and supplement public planning documentation by gathering local knowledge and experience from different perspectives on land and water use as well as on the development of the built environment.
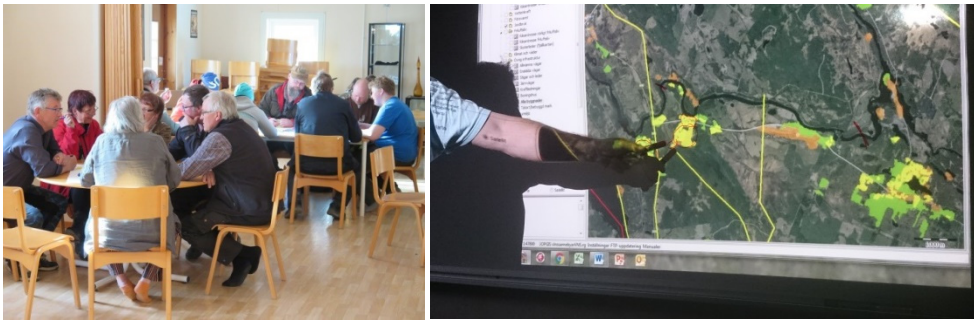
Figure 2: (a) Group discussions at the first pilot FG on visions for the district, and the municipality as a whole; (b) A participant at the Sami FG draws on a map projected onto a whiteboard to illustrate land use conflicts.

Each FG meeting was initiated with a brief introduction of the MCP-related issues that would be discussed. The importance of participation was highlighted, and the role as well as the mandate of the participants were clarified (the participants had no formal decision-making power since the MCP-document is ultimately a political policy document).

After a brief presentation of the research project as well as the overall design and purpose of the collaborative process, the participants were asked to fill in a short questionnaire. This questionnaire was aimed at capturing individual opinions as the meeting (in general) focused on the common view of the group. Afterward, two exercises were introduced.

The aim of the first exercise was to obtain input for formulating an overall vision for Vilhelmina municipality. This exercise was conducted as a "brain storming" session in small groups, where the participants were encouraged to write down all their suggestions on post-its. The instruction was that "all themes are important and no vision is too small or too big". Their input included innovative ideas, such as using information technology solutions, and to make land use management more local (compared with the current situation). At the end of the exercise, the group/subgroups (depending on the total number of participants) were asked to group their post-its and summarize their visions in one or two sentences. Working with visions was helpful in identifying (i) the geographic and thematic regions that different actors considered most important and (ii) a common goal for the future that can promote the building of trust among different interests in such heterogeneous groups.

The second exercise was structured based on themes; development of the built environment (including rural development in shoreline settings), nature and land use (e.g., agriculture and forestry, protected areas, peat extraction, and mining), communication and infrastructure (e.g., roads and public transport, postal/tele communications/IT, railways, trails and tracks), and climate (e.g., energy production and use, waste management). The participants comprising the relatively small groups (beehives) were asked to first discuss then illustrate and explain their views by drawing on maps (both on paper and on a white board). GIS-based maps and layers were projected onto a white board, where participants located and illustrated different aspects of land use. Regions leading to potential conflicts between different land uses and regions of high value for a specific interest or representing a barrier that prevent/hinder land use were identified.

Local politicians, officials, representatives from regional authorities, and participants from the FGs participated in the WS (a full-day exercise) that was arranged halfway into the process. The main purpose of the WS was to present, discuss, and validate the results from

the first round of FGs and to discuss aspects and directions of the continued process. Prior to the meeting, a summary of the results from the first round of FGs (comparing the different FGs) was compiled and sent to all invitees. Therefore, all had the same information beforehand and an opportunity to comment, react, and advise.

The purpose of the second round of FGs was primarily to validate interpretations and writings that the research group had produced based on the material from the first round and to anchor the first draft MCP. Text proposals from the draft plan (considered relevant to what had been discussed by participants at the preceding FG meeting) were presented as part of this validation. GP GIS was used to illustrate the identification of hot spots with regards to (i) overlapping national interests, (ii) overlap between small game hunting (number of hunting days) and national interest for reindeer husbandry, and (iii) regions with a high risk of avalanches (>20° slope) in proximity to different types of trails and tracks. Based on the discussions, we validated and adjusted the texts, both with regards to the overall vision of the municipality and the statements and guidelines linked to various themes. We also re-emphasized the role and mandate of the participants in the planning process and that the local politicians have the final say regarding priorities, guidelines, and adoption of the MCP.

The average age of the participants in the FGs was generally high. Therefore, after consulting with the municipal representatives, a decision was taken that a targeted effort toward the young people of the municipality (represented by students from four high schools and one upper secondary school) was desirable. One of the high schools answered the request and contributed with a complete study of the students in grades 7–9. As a supplement, young adults (age 20–25 years) aired their views concerning the development of Vilhelmina municipality at special meetings organized by the municipality board.

## 4.6 Information

One very important aspect of the project was to bring back knowledge to the participants. The main aim of the second-round FGs was to (i) inform participants of the input from all first-round FGs, (ii) show how we used their input, (iii) allow these participants to validate our interpretations, and (iv) use the input for our texts in the draft MCP-document. The halftime WS constituted an important forum for providing information about and anchoring the process among local officials, politicians, and representatives from regional authorities.

Information is important in relation to the "why participate" question. Therefore, we emphasized visibility of the project in local media and on the municipality website. We also described the project in leaflets handed out at the FG-meetings. Several participants told us that, through their participation, they learned a lot about the potential of MCP, and that their capacity was strengthened. Providing the participants with summaries of their input and incorporating this input into the plan, were considered very important and novel. According to Brody et al. [31], citizens are most encouraged by information obtained from participants, although this type of information is very seldom provided.

## 5 LESSONS LEARNED

In this section, we discuss lessons learned following the design principles in the model and elaborate on the experienced pros and cons of increased citizen and stakeholder participation early in the MCP-process.

Pre-planning is extremely important. During pre-planning, responsibilities, time frames, and the format of the collaborative planning process are discussed. Engaging a neutral facilitator at the first pilot was deemed helpful, since our moderating skills (required for the remaining FGs) improved after the first pilot. Among other things, the experience from the

pilot improved our knowledge regarding the presentation of process rules and the participant mandates, thereby resulting in successful deliberations. However, as researchers, we were both naive and ignorant in terms of the scope and the time required for an MCP-process. One important lesson is that collaborative planning requires sufficient time for dialog, communication, and feedback. We also learned that citizen and interest group participation is inadequate. Systematic work on anchoring, creating commitment, understanding, and learning among local politicians is equally important as this participation. Performing this work was an initial aim of the present project, but the municipal representatives in the executive working group disagreed, thereby preventing any such action. Parallel FGs, with citizens/stakeholders and politicians, and a joint meeting in the end to increase understanding and dialog between these groups of actors, would have been desirable. The lack of politicians participating in the FGs was highlighted as important by many participants, who wished they had the opportunity to be visionary and speak freely about local wishes and preferences. However, in retrospect, a third round of FGs enabling interaction/exchange between citizens/stakeholders and politicians in more heterogeneous groups (than those considered) would have been interesting. This could have increased learning and adaptivity, which are both important for developing a foundation of local knowledge and anchored priorities. Although we articulated the role and mandate of participants on several occasions, the FG participants may be disappointed if the politicians alter parts of the text in the draft MCP-document. However, the participants have been prepared for this eventuality and can air their complaints and opinions in the mandatory final consultation and the subsequent exhibition of the draft MCP.

We found that two-rounds of FGs were a successful concept for acquiring and validating new innovative local knowledge and showing the participants that their input was taken into account. This was confirmed by the participants, who expressed their appreciation for our visits (rather than the opposite). They were also grateful for the opportunity to learn about MCP and to get involved in the process at an early stage. The FG meetings revealed that many participants had no prior knowledge of what a MCP includes and manages, and several participants stated that they learned new things through their active engagement. In many cases, the issues handled by the municipality within the framework of its MCP and those decided at the regional and/or national level were unclear. The educational and capacity strengthening aspect, through participant engagement early in the MCP-process, is therefore deemed high.

Unfortunately, we had to cancel a few of the planned FGs due to low interest from citizens and stakeholders. The low turnout for some of the FGs may have resulted from the fact that the point of attending was unclear. In addition, they may have prioritized other commitments, or information on when, where, how, and why people would attend these meetings was inadequately disseminated. Based on our experience, personal contacts and local networks seem to generate the most participants. This represents an important lesson for further work and other municipalities who wish to work in a similar manner using local FGs and other types of meetings. The difficulties associated with attracting young citizens are encountered in participatory planning processes in all the mountain municipalities [14]. As noted, in addition to the FGs (where young citizens participated to a limited extent), we used supplementary methods, such as web-based surveys to get feedback from school children. Other types of participation activities and methods of disseminating information for example, more information about the MCP than that provided may have increased the number of participants involved in this study. Based on the time and resources available, we could have also had more outreach activities aimed at meeting citizens and stakeholders in public spaces (for example, in the square or in conjunction with social events such as markets).

Regarding methods, the use of P-GIS (or in our case GP GIS) can play a key role in the process as GP GIS represents an important communication and learning tool in the planning process. This method provides increased opportunities for the active participation of citizens and other stakeholders. Moreover, working with layers in a map (to illustrate hot spots with regards to different interests and activities in the landscape or movements of different actors in the landscape) proved to be very educational. The present approach is an innovative technique and can be used extensively for illustrations of this kind. Compared with non-illustration scenarios, the illustrations visualize the situation in a more concrete way, leading to considerable improvement in the discussion and the input.

Engaging participants early in the MCP-process provided a solid foundation for building and prioritizing the vision. This foundation yielded increased legitimacy, viability, and sustainability of the MCP-proposal, which will hopefully render the mandatory consultation and exhibition more of a formality than a necessity.

## 6 CONCLUSIONS

We argue that the model of the collaborative planning process, tested and implemented in Vilhelmina municipality (Section 4, Table 1), could be adapted by other municipalities for their MCP-work. However, participation processes in planning require adequate time and should be approached with patience. Two years, as in this project, are insufficient. Possibly, a minimum of three to four years would be required for successful participation in a similar project.

In addition, we recommend the involvement of local political representatives both early and continuously during the process. This may happen naturally if the municipality board initiates and runs the planning process without the drive from an external project. However, a neutral facilitator (peripheral to the municipal administration) seems to be very important for successful discussions in the FGs. This facilitator would clarify the mandates and rules, thereby rendering the process legitimate and transparent. Previous studies have shown that the involvement of consultants has a significant positive effect on increasing public participation [31], [40]. This fact may be helpful for other municipalities, who wish to increase the number of collaborative elements in their planning.

Collaborative, community-engaging processes for dialog, planning, negotiating and monitoring decisions and actions are vital to the development and subsequent implementation of a MCP-document. Involving citizens and stakeholders who play a role in (for example) land use, long-term planning, and management of natural resources represents a core principle in integrated landscape management [41]. Stakeholders in different sectors and at different levels must work together to coordinate actions, align goals, or reduce trade-offs, while simultaneously recognizing legitimate local, regional, national, and business interests. Therefore, improved methods and platforms/forums for communication, negotiation, planning, and conflict management are essential for developing future MCPs. In this respect, the potential of using P-GIS must be appreciated. Involving multiple stakeholder groups also expands the network of partners, who can both share knowledge and offer technical assistance and professional training, which lead possibly to improved MCPs [24].

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