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# Researcher roles in collaborative governance interventions

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## Abstract

While societies are facing complex problems involving multiple stakeholders and interdependencies, interest in collaborative governance as a potential solution is rising. Research-based interventions in policy, planning, and management processes have been introduced to test different approaches and tools for collaboration. The nature of these processes, tools, and approaches varies substantially, as do researchers' cultures of making contributions to and in collaboration with society. This paper outlines the various possibilities and means for researchers to intervene in and explore steps towards collaborative governance. It utilises literature-based descriptions of potential roles for researchers and draws on insight from Finnish collaborative governance interventions in environmental decision-making. The conventional role of researchers as providers of knowledge was complemented with roles needed to foster favourable conditions for collaboration. Tensions regarding these roles show that collaborative governance requires a reflexive position from researchers, enabling them to adapt their ideas about collaboration to specific governance settings.

**Key words:** collaborative governance; interventions; environmental policy; researcher role.

## 1. Introduction

Collaborative governance has been promoted as a response to complex public problems, including environmental problems, which require reconciling diverging interests and are characterised by strong interdependence. Collaboration and collaborative processes refer to intensive modes of interaction and negotiation, in which the participants are actively involved in defining goals, making decisions, and implementing the agreed actions (Gray 1989; Gieseke 2020). Strategic or systematic use of collaborative processes to identify, understand, and solve problems can be referred to as collaborative governance (Emerson and Nabatchi 2015; Ansell and Gash 2018; Greenwood et al. 2021). Its key principles include cross-sectoral interaction, learning, and consensus-based decision-making, which are achieved via carefully-designed and facilitated processes (Innes 2004; Susskind et al. 2018; Kotilainen et al. 2021). Collaborative governance draws from multiple backgrounds, but it has been most significantly influenced by the ideas of negotiation theory (Fisher and Ury 1981; Susskind and Cruikshank 1987; Susskind et al. 1999; Forester 2006). In addition to a practical approach to solving problems, collaborative governance can be understood as a broader attempt to renew decision-making by developing new modes of collaboration between the public and different stakeholders (Ansell 2018).

Many recent studies have justified the need for collaborative governance and suggested incentives for promoting collaboration (e.g. Ansell and Gash 2008; Scott and Thomas 2017), outlined the key role of public managers in planning and coordinating collaborative efforts, and identified the skills, competences, and tasks of collaborative public managers (e.g. Agranoff 2003; Agranoff and McGuire 2003; Getha-Taylor 2008; Emerson and Smutko 2011; O'Leary et al. 2012). Batory and Svensson (2019) advocate going beyond aspirational and idealised assumptions about collaboration and paying attention to the expectations and effects that arise from real-world collaborative interventions. The expectations regarding the impacts of collaboration influence the kinds of roles and styles that the acting public and other actors have, or can have, in collaborative processes. They may also give rise to confusion and new tensions (Gieseke 2020).

Collaborative governance literature typically identifies various kinds of roles for collaborators as process conveners, sponsors, neutral facilitators, stakeholders, or experts (e.g. Ansell and Gash 2012; Emerson and Nabatchi 2015). Although interactions between different actors in collaborative processes and especially the roles of public managers have been characterised and examined thoroughly (e.g. O'Leary and Bingham 2009; Scott and Thomas 2017), the role of one specific actor group, namely, researchers, has largely remained

unexplored. Yet, as long argued by public policy theories, such as advocacy coalition framework, scientific knowledge and expertise are crucial elements in public decision-making. Researchers as part of advocacy coalitions sharing beliefs and knowledge catalyse policy change or policy learning (Sabatier and Weible 2007; Meijerink 2005).

In collaborative processes, natural and social scientists are often involved as expert advisers in matters concerning complex public policy issues, but other roles may also be available to them. They can initiate collaboration, and especially, social scientists have facilitated the adoption of collaborative approaches in public decision-making. Understanding the ways in which researcher roles are constituted within interactive processes is crucial for advancing their ability to reflect on their role as active agents in collaborative arrangements and, more broadly, in science–society–policy interactions.

When characterising the engagement of science in society, the roles of researchers have been abundantly discussed in the literature on science–policy–society interactions (e.g. Pielke 2007; Turnhout et al. 2013; Saarela 2018), sustainability science (e.g. Pohl et al. 2010; Wittmayer and Schöpke 2014), and transdisciplinary research (e.g. Bulten et al. 2021). These studies mainly attempt to capture the variety of different modes and intensities of science advice offered during collaborative processes, e.g. by presenting typologies of possible roles (Pielke 2007) or modes of science–policy–society interactions (e.g. Hoppe 2005, 2009).

In addition to these descriptive works, research has also been performed on the role of researchers from a process perspective, reflecting on the ways in which research contributes to societal change as an active agent (Wittmayer and Schöpke 2014). While in public policy theories, the emphasis has been on observing the emergence and influence of knowledge-based coalitions in policy-making, this debate mainly stems from action research. In action research, researchers are actively involved in societal change processes, which makes them responsible and accountable for their role (Rotmans 2005). Epistemologically, there is a commitment to valuing researchers' experience of the processes and reflections on their role as part of knowledge making about the issues at hand or the societal processes dealing with them (see Kuehner et al. 2016).

We will bring these discussions on researcher roles together with discussions concerning collaborative governance by reflecting on the potential and expected roles of researchers in real-life collaborative processes. Taking action research as a starting point, we conducted and analysed several interventions in various fields of environmental governance to facilitate a move towards greater collaborative governance in Finland. Overall, we thus acted as issue advocate researchers (Pielke 2007) and attempted to introduce elements of collaborative governance to Finnish environmental and natural resource management processes.

While many types of participatory processes exist in natural resource and environmental planning and decision-making in Finland, the notion of collaborative governance, primarily developed in North America, introduces new elements to the equation: it is essentially problem-oriented and mediates between diverging interests. In contrast to consultants, who often focus on solving practical problems in question, as researchers, we emphasised producing new knowledge,

documenting the intervention processes according to academic criteria, reporting the results transparently, and discussing them in some wider societal and theoretical context (Shugan 2004). The research-based interventions we carried out have been adapted to fit particular governance needs, settings, and cultures, and they took on a dual role for us: on the one hand, we explore how the relationships between government and other actors can be transformed within this context; on the other hand, we study and reflect on our role as 'self-reflexive scientists' (Wittmayer and Schöpke 2014) and active agents in a societal change process. In this paper, we focus on the latter aspect by addressing the following questions:

- (1) What kinds of roles do researchers adopt in collaborative governance processes?
- (2) What expectations and tensions arise concerning researchers' roles in initiating a change process and being part of a dynamic societal process?

## 2. Typology of researcher roles in collaborative governance interventions

Demands for transformative research and for increasing the societal impact of research have led to changes in how research is linked to ongoing real-world processes. Research linked to multifaceted societal problems is often iterative and experimental—including interactions between actors from various domains (Regeer et al. 2009). Furthermore, as pointed out by Greenwood and Levin 2007: 130), action research is always a messy process that includes diverse and changing actors, perspectives, values, and contexts, thus requiring 'skillful improvisation'. As a consequence, the spectrum of researcher roles in the science–society interface has broadened (Turnhout et al. 2013).

Based on literature on science–policy–society interactions and collaborative governance, we arrived at four different descriptions of potential roles for researchers when developing and facilitating collaboration in ongoing planning and policy processes: knowledge broker, process designer, capacity builder, and critical researcher. The descriptive–analytical mode of science–policy interaction emphasises the role of researchers as providers of substantial knowledge and insight into societal processes (Wittmayer and Schöpke 2014). In collaborative governance, however, the input of researchers can be aimed at the processes, approaches, and cultures of governing rather than at contributing instrumentally to the issue at hand. It thus calls for a process-oriented mode of interaction aiming at societal learning (Miller 2013) and ability to navigate conflicting views and agendas (Chambers et al. 2022). Researcher roles are then extended to that of capacity builders or process designers who create space and tools for collaboration between various actors (Wittmayer and Schöpke 2014).

Due to the intersection of conventional and new roles, we adapted the four roles described in detail below by combining the various roles identified in both science–policy–society and collaborative governance literatures. We then used this typology of possible researcher roles to allow the participating researchers to collectively reflect on their roles and

interactions with other actors within collaborative intervention processes in Finland.

## 2.1 Knowledge broker

Literature on collaborative governance has identified knowledge as an essential part of collaborative processes: knowledge is shared and carefully considered with others, knowledge is produced and interpreted, and ultimately, contested knowledge is discussed and debated (Greenwood et al. 2021). Given the amount of current knowledge at stake in such processes, and given that it is often specialised and dispersed, the importance of knowledge management and brokering within and across organisations and individuals is crucial in governance. Science-policy studies characterise knowledge brokering as actively mediating between knowledge producers and users with the aim of supporting the governance process with scientific knowledge, building connections with experts/expertise, and integrating various types of knowledge (Michaels 2009; Turnhout et al. 2013). In collaborative governance processes, researchers may, e.g., disseminate targeted knowledge directly to (some) actors involved in the process, help identify what type of expertise would be needed, and act as an intermediary for it. The key aspect is to match the knowledge brokering activity/activities to the process, as more intensive activities require more resources and commitment from the actors (Michaels 2009).

## 2.2 Process designer

Collaborative governance scholars (Emerson et al. 2012: 14) have emphasised the importance of formal and informal rules, procedures, and institutional design in ongoing collaboration efforts. However, existing institutions might not support collaborative governance because a process often involves various public and non-public actors and is therefore influenced by a multilayered context of political, legal, socioeconomic, and environmental factors that might prevent or hinder effective collaboration. Therefore, researchers can support the renewal or building of institutions for collaborative governance by proposing, introducing, testing, and developing new arenas, rules, procedures, and methods for collaboration such as facilitated negotiation or joint fact-finding. Depending on the experience of individuals and groups, both intra-organisational institutions and inter-organisational institutions can require development. An identified leader who is committed to joint action and not tightly bound to any particular viewpoint is part of the institutional context (Emerson and Smutko 2011). Generally speaking, the more complex and longer the process, the more explicit institutions are required.

## 2.3 Capacity builder

Actors, both individuals and groups, taking part in a collaborative governance process require certain (new) capacities for joint action, knowledge utilisation, or evaluation. Research in knowledge-based management, science-policy interaction, and community science has characterised these capacities as 'a collection of crossfunctional elements that come together to create the potential for taking effective action' (Saint-Onge and Armstrong 2004: 17). In practical terms, capacity building is often related to increased/ revised partnerships, skills,

and resources (Hacker et al. 2012) that result from an iterative approach of action, evaluation, and making adjustments (Michaels 2009). In initiating and fostering new practices, researchers can facilitate social learning processes, long-term institutional collaboration, actor self-reflection and evaluation, and policy/practical implementation.

## 2.4 Critical researcher

Researchers may also contribute to collaborative governance with critical research, e.g. by foregrounding the complexity of problems and processes. Researchers can critically assess the prevailing ideas, aspirations, and actions for collaborative governance and be mindful of the outcomes Horkheimer of collaborative processes (Horkheimer 1939: 270, as cited in Machen 2020). Thus, they can facilitate diverse transformative actions that originate from changed understandings (Pain et al. 2011). Machen (2020) has identified and described several goals for critical research. Critical research can challenge mainstream policy or action by highlighting the implications or proposing amendments, support the empowering of marginal and counter voices by listening, representing, and communicating with other actors, envision alternative ways of thinking and acting, and hence nurture critical publics, by analysing and visualising social inequality. These kinds of tasks have also been identified as crucial in co-production of societal transformations (Chambers et al. 2022).

## 3. Research materials and methods

### 3.1 Collaborative governance interventions in Finland

Finland is a civil law country with an established consultation procedure (Airaksinen and Albrecht 2019). Environmental governance in Finland can be regarded as a form of 'environmental corporatism' in which the representation of different, often conflicting interests is institutionalised in environmental policy-making (Hukkinen 1995a, 1995b; Gronow et al. 2019; Koskimaa et al. 2021). Corporatist policy preparation and implementation have been prominent in Finnish political decision-making since the late 1960s. It has been particularly evident in the tripartite economic and labour market policy between the government, employers' organisations, and trade unions, but corporatist interest intermediation is also characteristic of other policy sectors. In accordance with the corporatist 'Nordic model', policy preparation in Finland has been carried out in preparatory committees and working groups, where the organised interests are coordinated and integrated into public policies (Christiansen et al. 2010; Öberg et al. 2011).

This routine-like incorporation of interests (see Vesa et al. 2018) is, however, currently being challenged by the increasing complexity of environmental and social issues and the need for new types of interactions to facilitate multi-party problem-solving efforts at different levels of decision-making. The interventions through which we experimented collaborative governance were targeted at this problematic. They derive from a transdisciplinary research project which was the first extensive effort to introduce collaborative governance approaches in Finland in relation to environmental issues. Steps towards collaborative governance may require new approaches also from researchers who have conventionally been consulted as experts in their research fields in committees

and working groups. Our experiences from Finland thus highlight that interventions in the prevailing style of governance are also interventions in science–policy–society interactions, calling for broader and more active roles for researchers than those offered to them by the Nordic or European corporatist governance models.

Together with actors from various sectors and levels of governance, we identified processes where collaborative approaches would benefit public problem-solving efforts and where they could be experimented with to achieve better results. Some of the interventions began on our own initiative, some resulted from previous collaborations, and still, others were initiated by the actors themselves. Nevertheless, the interventions responded to the actors' needs to manage diverging interests and contested issues. The interventions were possible because the actors were committed to developing novel approaches to governing complex issues compared to conventional consultation or participatory processes. The experiments were designed in collaboration with the public sector process owners, and they comprise interventions that vary according to their intensity and length of operation.

In this paper, we draw from experiences of researchers involved in five different intervention processes. All of them concern multi-stakeholder processes in environmental planning and decision-making, but the specific sectors and, consequently, the collaboration partners they targeted vary from wildlife and water management to mining and energy. The key characteristics of these processes are summarised in [Table 1](#).

The interventions were independently carried out by researcher teams with diverging disciplinary backgrounds, ranging from sociology and environmental policy to human geography and environmental law. The size of the teams ranged from two to ten persons, and some of the researchers were involved in several interventions. In addition to the teams carrying out the interventions, other researchers, primarily natural scientists, also participated in the intervention processes. In this paper, we do not scrutinise their roles but use our own experiences to reflect on the possible roles that researchers can take in collaborative processes. Although our intervention teams consisted of social scientists, the roles for researchers are not specific to social sciences.

Few researchers in our intervention teams had prior experience with action research, although many had been working with stakeholders during their previous research projects. The intervention teams met each other approximately twice a year in joint project meetings during the four year project period to share their case study progress in written and oral forms and to reflect on the experiences and challenges. A preliminary typology of the researchers' possible roles was presented approximately halfway through the interventions to boost the self-reflection activities and analysis of the interventions. Besides those meetings, the intervention teams carried out the work independently, while the intervention processes took place and lasted for different periods of time during the years 2017–22.

### 3.2 Method: collective reflections on researcher roles in collaborative governance interventions

After the intervention processes, or in some cases during their final phases, the four roles introduced in [Section 2](#) were discussed in interviews with the intervention teams to

**Table 1.** Key characteristics of the studied collaborative governance interventions.

Intervention	Original problem at which collaborative intervention was directed	Ownership of the process	Initiative	Collaboration partners
Local mining collaboration platform in Sodankylä (duration: 3 years from fall 2017 to spring 2021)	Mitigation of impacts of mining, increasing the locally-received value from mining	Sodankylä municipality	Sodankylä municipality contacted researchers	Mining companies, local businesses, reindeer herders, environmental NGOs, community representatives
Rescue waterways social movement (duration: 2 years from fall 2017 to fall 2019)	Conflict over the impacts of peat extraction on water quality in the context of regional land use planning	Regional Council of Central Finland	Regional council contacted researchers who had been conducting a survey prior to the intervention	National and local NGOs, JAMK University of Applied Sciences
Wolf management plan update (duration: 1 year from fall 2018 to fall 2019)	National conservation conflict about the appropriate management of wolves	Ministry of Agriculture and Forestry	Researchers devised the initiative while interviewing an official at the ministry for previous research	Environmental and game administration, police, a research institute, interest groups for rural livelihoods, environmental and hunters' NGOs
Cormorant-fishing conflict management (duration: initial contact 2019, joint fact-finding process 7 months from fall 2021 to early 2022)	Conservation conflict concerning the impacts of cormorant populations on commercial fishing	South Ostrobothnia Centre for Economic Development, Transport and the Environment, Ministry of the Environment	Researchers devised the initiative	Public administration, research institutes, universities, fisheries organisations, NGOs
Citizen energy transition arena (duration: 8 months in the first half of 2020)	Controversies regarding policy actions to support citizen energy production	Ministries of the Environment and Economic Affairs and Employment; research	Researchers devised the initiative	Local and national-level administration, advocacy associations, citizen actors, energy companies, NGOs

facilitate their reflection on research-based interventions. We, the first two authors of this paper, interviewed each team as a group, or in some cases, individual researchers, and asked them to describe their roles and the way in which their roles had evolved or been extended in each case. We also asked them to identify other possible roles not captured by the four main researcher roles. In addition to the interviews, we collectively discussed researcher roles and the observations concerning them with all project researchers during and after the intervention processes.

We characterise our method loosely as collective memory work, in which we used theoretical insights about researcher roles to facilitate reflections on the actual experiences of researchers with respect to these roles. Memory work is a research method explicitly developed to bridge theory and individual experience (Haug 2000; Onyx and Small 2001; Åkerman 2014). It is essentially a group discussion method developed in feminist research to reflect on and learn about women's experiences in male-dominant societies. Our method is inspired by this kind of collective approach to documenting and sharing experiences, but we depart from the method in three essential ways.

First, our focus is not on the experiences of a marginalised group but rather on the experiences of researchers who are initiating and leading interventions in societal processes. Second, and partly stemming from the above-mentioned position of researchers in the intervention processes, we do not follow the strict format of this method, which involves anonymised written memories, but mainly work through transcribed discussions. Third, we used accounts of researcher roles from previous studies to spark discussion and facilitate the collective memory work.

Despite these differences in the work process, our method resonates strongly with the memory work approach. Importantly, it is based on the idea that researchers are active participants—not just collectors or analysers of knowledge about collaborative practices. As participants in the collaborative processes, and yet occupying a specific position and viewpoint, the researchers possess significant experience-based knowledge of these processes (see also Kuehner et al. 2016). Furthermore, their collective reflections on collaboration facilitated iterative memorising and allowed the researchers to introduce insights about the process that may otherwise have remained tacit. For example, discussing the observations and experiences of others often led to reflections on similarities or differences between the processes and enabled the researchers to remember and appreciate their own experiences.

We documented the experiences and reflections of the researchers during the interventions and encouraged them to discuss and learn from them throughout the processes. Based on the interviews and joint discussions carried out when the intervention processes had or were about to finish, the two leading authors summarised and characterised how the researcher roles evolved during the collaborative intervention processes. The interviewed researchers were then asked to comment on and refine these interpretations. This way of working is valuable because it makes it possible to iteratively build an understanding of the roles suggested by and to the researchers during the interventions.

The insights shared by researchers enabled us to make observations about situations in which they chose, upheld,

or justified the need to abandon or modify a particular role. Therefore, the collective memorising and sharing of experiences enabled us not only to characterise the various roles of researchers in the interventions but also to identify the tensions that emerged as a result of the suggested and adopted roles. In this vein, we combine a descriptive approach to the roles with a reflexive, process-based approach to understanding how researchers act as active agents in transformations aimed at collaborative governance.

## 4. Results: extending researcher roles in collaborative governance

### 4.1 Types of researcher roles in collaborative interventions

In Table 2, we sum up our observations concerning the different roles assumed by the researchers in the five intervention processes. The examples from the interventions illustrate the diversity of tasks, strategies, and skills employed by researchers during the processes. The roles were determined by the researchers' own expectations about the process as well as the expectations of the process owners and other participants. Eventually, the various roles took shape based on the interactions between them and their collaboration partners (see also Batory and Svensson 2019). In addition, the characteristics of the processes themselves, including available time and other resources, set limits on what kinds of roles were possible and relevant.

### 4.2 Diversification of researcher roles in collaborative societal processes

It is notable that the intervention teams could identify elements of all roles in every intervention process despite these processes and their contexts being so different. The amount of emphasis given to each role diverged, however. While many of the intervention processes lasted a relatively long time (from a few months up till three years) and had many phases, the initial roles taken by the researchers or the roles suggested for them evolved and extended throughout the process. In the following, we discuss how the diverse roles complemented each other and led to a mutual learning process between the researchers, process owners, and other participants with whom they were working while experimenting with collaborative governance approaches.

In many interventions, the researchers gained access to the intervention processes through the role of knowledge broker. Researchers approached or were approached by the process owners to offer targeted analyses and expertise regarding the process, thus assuming a conventional dualist/objectivist epistemological position where the researcher's task is to observe and assess the object of research (see Guba and Lincoln 1998). Although the broker role was prominent in the beginning of several intervention processes, it soon became clear to us that the knowledge brokering role alone was not sufficient for the collaborative intervention settings but started to move towards epistemological positions emphasising a more relational and transactional nature of knowledge co-creation.

For example, in both the Sodankylä mining collaboration and citizen energy production interventions, researchers provided legal analyses of the boundaries and conditions

**Table 2.** Researchers' roles in the interventions.

Roles	Local mining collaboration platform in Sodankylä	Rescue waterways social movement	Wolf management plan update	Cormorant-fishing conflict management	Citizen energy transition arena
Knowledge broker	Conducted legal analyses of mining agreements and reviews of global examples of local benefit agreements	Conducted a survey on local residents' experiences with water quality in the region prior to the process	Provided insights into the specific aspects, context, and implications of the conflict; evaluated the management plan update process from the viewpoint of collaboration	Provided syntheses of topics indicated by a joint fact-finding mission addressing scientific controversies; convened an interdisciplinary expert panel	Analysed the governance frameworks and bottlenecks for citizen energy approaches
Process designer	Created a model for a local collaborative platform, including concrete measures for collaboration: foundation, mining forum, collaborative water monitoring	Were consulted about possibilities to share power with stakeholders in a regional land use planning process; tested collaborative approaches in a joint event called 'LakeDays'	Supported the process owner in process planning, introducing collaborative principles and tools; designed and facilitated the opening seminar for the process	Designed, convened, and facilitated an expert workshop as well as a joint fact-finding mission with stakeholder representatives	Developed and controlled an intervention to test the transition arena method for joint knowledge production and deliberation
Capacity builder	Organised workshops to facilitate inclusive approaches and collaborative learning; assessed key stakeholder interests and preconditions for collaboration	Facilitated social learning by analysing the actions taken; catalysed self-reflection among the actors; were a source of legitimacy for officials testing collaborative approaches	Introduced neutral facilitation as a tool to improve dialogue; catalysed actors' self-reflection by verbalising the conflict and by trust building exercises	Supported collaborative capacities by establishing ground rules for the joint fact-finding mission and coaching the parties in how to have a knowledge-focused dialogue	Developed collaborative skills as part of the intervention; facilitated the ability of the actors to deliberate on energy issues from different perspectives
Critical researcher	Stressed the need to broaden the scope of stakeholders and the goals of the collaborative arrangements regarding the distribution of the benefits accrued from the mining operations	Provided sociological knowledge about the local social movement to decision makers and the process owner to make their marginal stakes more comprehensible and valid	Conducted critical analyses of wolf policy, which led the process owner to accept the offer to support the process; raised awareness of the critical publics left outside the process	Conducted a critical analysis of the shortcomings of the previous attempts to address the cormorant conflict	Elevated the citizen energy perspectives to a national discourse on energy policy
Other identified roles	Provided mental support by building motivation and a comfortable atmosphere for collaboration as well as trusted relations	Provided mental support and acted as a conflict mitigator by holding private discussions with actors	Provided mental support by helping the process owner to find and test approaches to controversial debates and by encouraging to formulate ambitious objectives for the process		

for either agreement-based approaches or more active citizen engagement in energy production. In both interventions, the researchers simultaneously occupied a critical researcher role. In Sodankylä, the researchers recommended broadening the scope of participants and the goals of the collaboration as a precondition for a successful, just, and legitimate negotiation process. This was done as a response to their assumptions about how the other actors viewed the agreement idea when it was introduced to them in the beginning of the intervention. In turn, researchers involved in citizen energy production intervention took the critical approach of attempting to level the playing field and bring activist citizens and environmental non-governmental organisations into dialogue with the established energy sector actors. This was based on their earlier insights of the sector and its challenges but became evident

in the collaborative process, where the most active advocacy groups were strategically dominating the process.

At this point, the roles started to diversify even further. For the citizen energy production intervention, the researchers launched and designed a controlled intervention by applying a transition arena method (Lukkarinen et al. 2023) to facilitate deliberation on the possibilities for decentralised energy production and citizen participation during a 4-month period in 2020. Through this means, they also facilitated capacity building and collaborative governance among the actors. In Sodankylä, the process owner agreed with the researchers' earlier suggestion and a series of workshops were organised for deliberating and developing the idea of agreement-based collaboration model. Soon after this, the process owner shifted responsibility for organising and realising the idea to the

researchers due to internal turmoil within the municipality. After almost a year of minimal communication, the municipality became active again and the researchers conducted a situational assessment, gathering the views of central stakeholders to a report, which suggested several concrete collaborative measures to be taken (Kotilainen et al. 2022). At this later stage, the researchers were increasingly in charge of creating the conditions for possible future steps in collaboration; they also assumed the role of mental supporter, encouraging the actors and generating a favourable atmosphere for collaboration.

The third intervention to begin with a brokering approach included the 'Rescue waterways' social movement on land use planning. Prior to the intervention, the intervention team members had conducted a survey about citizen perceptions of the state of local waters in collaboration with the Regional Council of Central Finland and the social movement actors (Möttönen et al. 2016). Conducting the survey combined the role of a knowledge broker with that of a critical researcher, as the survey results validated the views of the social movement concerning the widely spread concern of local residents about the degraded state of waters. Based on this collaboration, the researchers were approached by the process owner, the Regional Council, who requested support for their ideas of organising a participatory process around regional planning in a novel way. The knowledge brokerage role thus overlapped with a capacity builder role to better design the process.

The researchers continued in the critical researcher role throughout the intervention, aiming to increase understanding about the perspective and position of a marginal citizen movement in the process and raise awareness about the underlying conflicts over land use and the state of waterways in the region. These roles were further extended towards the end of the intervention into arena design as the researchers jointly organised a collaborative event with the social movement actors. These actors have continued to organise similar events after the intervention, which underlines the importance of capacity builder role. Researchers also found themselves assuming a mental supporter role when relations between some actors worsened during the process.

The critical researcher role is an innate and self-assured role for social scientists wishing to gain access to societal processes. In the wolf management plan update, the earlier, long-term critical analyses of wolf policy in Finland by the intervention team (Ratamäki 2008, 2013; Hiedanpää and Ratamäki 2015) had highlighted the controversial implications of prevailing strategies for managing wolf populations. Their previous assessments of such strategies also offered researchers direct access to the process. Known by the process owner, the researchers were able to propose collaboration and offer a collaborative framework for the upcoming wolf management plan update process.

During the 1-year process, researchers quickly assumed the roles of the process designer and capacity builder when seeking ways to introduce collaborative elements into the existing arenas of wildlife planning. Before and during the process, the researchers helped the process owner to plan the process and were invited to design and facilitate the opening seminar. Halfway through the process, they convinced the process owner of the usefulness of external, neutral facilitation to

run regional stakeholder workshops. They were also asked by the process owner to enhance trust building among the stakeholders. Thereby, they designed and ran exercises that invited the actors to identify factors influencing their mutual relations. They encouraged self-reflection among the participants by offering their insights about how the conflict was evolving. In this role, they were also trying to argue for and demonstrate the value of collaborative approaches not necessarily recognised by some process participants. They thus responded at this point to the lack of interest in collaborative governance that they had experienced during the process.

From the very beginning of the intervention till its end, and even beyond, the mental support and encouragement they offered the process owner proved to be the most prominent role, but the researchers also returned to their critical role of management strategies when asked to provide their insights on the conflict over wolves. Towards the end of the process, the researchers interviewed all those participating in the process, including the process owner, and provided their reflections in an evaluation report (Ratamäki and Pelto 2020). The report also included critical reflections on the aptitude of collaborative governance in a context involving longstanding conflict and underlined the need to involve the critical publics remaining outside the process.

Launching a collaborative intervention proved most difficult in the cormorant case, in which the researchers first approached the Ministry of the Environment and offered to organise a joint fact-finding mission (Matsuura and Schenk 2017) on cormorant-fishing interactions as part of a national cormorant management strategy process. They identified cormorant planning as a critical case where collaborative approaches would offer an alternative model for handling conservation conflicts. However, the authorities were not keen to delve into the controversial questions, but instead wanted to focus on finalising the text concerning the proposed measures to control the problems.

This demonstrates that the reluctance of problem owners to try out new approaches often necessitates that researchers step out of their expert role of providing know-how about new methods and strongly advocate for such methods, sometimes unsuccessfully, as in this case. However, regional-level authorities with first-hand experience in dealing with the cormorant conflict were more receptive to new solutions and co-organised a multi-stakeholder joint fact-finding process with the research team after 2 years from the initial contact with the Ministry of the Environment. During this process, the researchers assumed multiple roles, acting as knowledge brokers in preparing summaries of recent research findings, designing the arena for collaboration, and supporting collaborative capacity building among the participants during the joint fact-finding process. They did not serve as issue advocates on the substance of the debate, but instead made a conscious effort to act as neutral third-party facilitators. However, they did act as advocates of the joint fact-finding process and tried to promote its usefulness when trying to resolve science-intensive environmental conflicts by demonstrating its benefits and arranging a practical example of its use in multi-party settings, such as regional cormorant task forces. They also carried out a critical analysis of the nature of the conflict and the role of different actors in the conflict.



## 5. What kinds of issues did collaborative interventions raise about the role of the researcher?

The purpose of the interventions addressed in this paper was to test, apply, and analyse principles of collaborative governance involving challenging environmental management and planning processes in Finland and thus to facilitate multi-actor collaboration. The analysis of researcher roles and experiences presented earlier show that initiating and fostering collaborative approaches that extend beyond conventional and mandatory participation can prove challenging not only for the collaborating actors but also for the researchers involved in these processes in various ways. For researchers, this meant that they had to support and challenge the other actors while at the same time being challenged by them to take on additional roles.

Our key observation was that in all the intervention processes, the researchers faced a need to extend their role beyond the one they initially assumed or held. This makes explicit the demands arising from the collaborative nature of the interventions: transforming relations between the state and other actors requires that researchers attend to their own role as part of the collective processes and adapt them according to the needs of the other actors. Other actors may also have expectations regarding the researchers and their roles. The researchers typically accessed the processes in a specific, planned role manner, but during the course of the process, the researchers responded to the demands raised by the other actors or arising from the processes. In some cases, the collaboration had started long before the researchers entered the process, while in other cases, the researchers initiated and led the process. For example, in the citizen energy production intervention, researchers played a key role in the process design phase and only marginally adapted their roles thereafter, whereas in the wolf management case, they dealt with more uncertainty concerning their role. The latter intervention did not involve such a well-formulated collaborative method as the transition arena method, but researchers still needed to find suitable ways to enhance the existing stakeholder process.

The material generated through collective memory work includes many observations about the tensions between expected and actual roles. These tensions were related to both collaborative governance and the role of researchers as advocates of this approach. Our approach made it possible to observe how researchers attempted to resolve them. One of the tensions was related to the need or expectation that researchers would adopt roles in which they felt inexperienced or did not find appropriate. None of our researchers had lengthy prior experience with action research. Rather, they felt more comfortable in conventional researcher roles, such as knowledge broker or critical researcher roles, providing knowledge about the issues at hand or analysing the policy implications. On the other hand, the collaborative governance framework offered them approaches and tools that they could apply in the interventions. This primarily led them to advocacy roles, for example, the roles of process designers and capacity builders. In some cases, other actors began to place such expectations on the researchers that the researchers viewed as inappropriate. For example, in the Sodankylä mining intervention, the researchers felt at times that the process owner expected them to work in the role of a consultant, with the main task being to help the process owner fulfil its goals.

As a response, the researchers emphasised their role as critical researchers with the task of ensuring that collaboration must be based on equal opportunities for all actors.

The role of researchers may raise questions among other actors especially when the role of researchers involves a need to support existing or new counter publics or empower marginalised voices. The extant literature on sociological interventions (Wieviorka 2014) has acknowledged such situations, where researchers amplify developments initiated by social movements. Drawing a boundary between being an activist and a researcher demands sensitivity to the way in which this kind of position may affect the process. In the Rescue Waterways social movement case, the researchers faced situations in which others explicitly demanded that they take a side in the issue of protecting local waterways against harmful land use practices. An activist role can, however, compromise the trust of other actors in the process.

One of our key findings was the crucial role of researchers as the providers of mental support. This was a role not identified in the literature, but it nevertheless appeared in the interviews with several of the researcher teams. This role highlights an aspect of collaborative governance rarely discussed within the context of science-policy-society research, and although some studies on collaborative governance deal with it to some extent, it is not associated with the role of researchers: when researchers intervene in collaborative processes, such interventions involve affective labour (Hochschild 1983; Brunet et al. 2019) just as much as they do cognitive, analytical, or organisational work.

## 6. Conclusions

While previous research on the role of researchers in societal processes has typically focused on characterising and categorising the various stances and positions available to researchers, our observations put emphasis on the processual nature of interventions and demonstrate the need for flexibility or ‘co-productive agility’ (Chambers et al. 2022) with respect to the roles when researchers engage and intervene in real-life processes and foster and precipitate changes in governance. The role of a researcher is as much shaped by and in collaboration with the research object as it is defined by the researchers themselves. Experiences from making and taking part in collaborative governance interventions also provide understanding of how different roles complement one another.

Accepting that the roles may evolve and that actors may invoke new and sometimes even contradictory expectations regarding such roles may help researchers to better cope with the uncertainty and ambiguity related to their roles, a situation that often prevails in real-life processes in contrast to the clear-cut roles presented in the extant literature. Researchers may need to clarify or make their role more visible to other actors. This enables them to also draw a line between the roles they are willing and capable of accepting and those that they are not ready to adopt. Another strategy to resolve contradictions regarding researchers’ roles is to adapt the role based on the impact of the chosen role in the process. This is a particular requirement for researchers involved in collaborative processes: while collaborative governance can only be achieved through collaboration, researchers must to some extent be able to respond to the needs and wishes of their collaborators.

As advocates of collaborative governance, we also had to be ready to negotiate the meaning of collaboration and adjust the goals of the interventions rather than being defensive about the theoretical and practical ideas of collaborative governance. On the other hand, collaboration also sets limits on what is feasible, practical, and desirable, and reflexivity helps researchers to navigate these boundaries. For example, roles that compromise the trust of some actors may compromise the entire collaborative effort. Therefore, collaborative interventions place specific demands on researchers to reflect on their role during and after the processes.

To be precise, our experiences of collaborative interventions encourage strong rather than weak reflexivity. While weak reflexivity is aimed at eliminating the influence of the researcher in the process, strong reflexivity underlines the experiences of researchers as resources in transformative processes (Kuehner et al. 2016). Such a position can reveal aspects of the collaborative processes that would otherwise be neglected or remain tacit, such as affective labour. One of our key observations concerns the nature of research work in collaborative processes, as we realised that affective skills and an ability to offer mental support for actors who collaborate were also required of researchers. The strong affective dimension of research work opens up further questions about the nature of action-oriented research and the capacities required from researchers carrying out real-life interventions. For example, what kinds of special skills and needs emerge from the affective nature of societal transformations, and how can researchers develop their own sensitivity and capacity in this respect? This is also a very topical policy issue, as the environmental governance discussions (such as implementing novel biodiversity and climate mitigation policies) often turn into polarised dialogues over social justice, inclusion, and sharing of costs.

Our findings owe much to the method that we applied in this study to facilitate researchers' reflections on their roles. Memory work helped us to understand the nature of our own work and its preconditions. Facilitated by the literature-based descriptions of potential researcher roles, memory work enabled us to assess in what respect the interventions induced similar or diverging experiences and observations across the different intervention processes. Joint reflection on the interventions increased our understanding of how the theoretical ideas and typologies of researcher roles play out in real-life collaborative processes. The typologies nourished our own thought processes and enabled new insights into what it means to collaborate with other societal actors as a researcher. In this vein, researchers' experiences can be a resource for improving the practical conditions for collaboration and open up space for new insights into collaboration.

**Data availability**

The data underlying this article cannot be shared publicly due to the privacy of those individuals who have participated in the collaborative interventions.

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