# Diversifying Swedish Forestry Through Advice

## A study on how forest advisors in southern Sweden perceive and work with variation in forest management

Vera Janlert

Degree project • 30 credits
Swedish University of Agricultural Sciences, SLU
Southern Swedish Forest Research Center
Jägmästarprogrammet
Alnarp 2025

# Diversifying Swedish Forestry Through Advice: a study on how forest advisors in southern Sweden perceive and work with variation in forest management

Vera Janlert

| | |
|---|---|
| **Supervisor:** | Luis Andrés Guillén Alm, Swedish University of Agricultural Sciences, Southern Swedish Forest Research Center |
| **Examiner:** | Elias Andersson, Swedish University of Agricultural Sciences, Southern Swedish Forest Research Center |

| | |
|---|---|
| **Credits:** | 30 credits |
| **Level:** | Second Cycle A2E |
| **Course title:** | Master's thesis in Forest Science |
| **Course code:** | EX0984 |
| **Programme/education:** | Jägmästarprogrammet |
| **Course coordinating dept:** | Southern Swedish Forest Research Centre |
| **Place of publication:** | Alnarp |
| **Year of publication:** | 2025 |
| **Cover picture:** | "Adinas-Eken" by Vera Janlert |

| | |
|---|---|
| **Keywords:** | Advisory services, forest owner associations, Södra, alternative forest management, forest decision-making |

**Swedish University of Agricultural Sciences**
The Faculty of Forest Sciences
Southern Swedish Forest Research Center

## Abstract

Forests cover nearly 70% of Sweden's land area, making them a cornerstone for biodiversity as well as an important economical asset. As demands for sustainable forest management increase, tensions have emerged between environmental concerns and economic interests. These ultimately impact forest managers and advisors, creating challenges in their practical day-to-day work with forest owners. In this study, I examine how forest advisors see variation and approach the needs for a more diverse forest management in Sweden. I make emphasis on their role and how the services they provide can affect the conditions for a more varied forest management in southern Sweden, with an additional focus on how they navigate and operate within the governance context of Swedish forestry. Data was collected through semi-structured interviews with forest advisors employed at diverse geographical locations within the forest owner association Södra. Forest advisors identified that members who choose alternative management approaches value their forest beyond economic reasons, which strongly influences management goals and practices. Advisors influence forest variation and diversity through both active and passive means and the outcome of their service depend on the interactions between several factors: trust, values, motivations, communication, and knowledge & information. While advisors express an interest in promoting variation, there are aspects that can hinder the establishment of more alternative management practices such as standard forestry norms. Moreover, participants expressed how the growing polarisation in forestry creates a challenging and rapidly evolving professional environment where forest advisors feel to be unfairly portrayed as one-sided. This research reinforces the importance of studying the role of the advisor and their practice in shaping Swedish forests ecosystems, and how they are critical for more varied forest practices in Sweden.

# Acknowledgements

Firstly, I want to say thank you to all the advisors that took time out of their day to be interviewed and for sharing their knowledge and insights. I also want to thank the supervision group at Alnarp, primarily my supervisor Luis Andrés who with great patience took on an at times scatter-brained student with a very uncertain email-response-time.

Till slut vill jag säga tack till dig Per, hoppas att du får dig ett glas och kan fira med mig.

*Vi är inte här för att ha kul, vi är här för att vinna*

- Per Janlert

# Table of contents

**Acknowledgements** ..... **4**

**List of tables** ..... **6**

**List of figures** ..... **7**

**Abbreviations** ..... **8**

**1. Introduction** ..... **9**
1.1 Purpose & Aim ..... 10
1.1.1 Scope and Limitations ..... 11

**2. Background** ..... **12**
2.1 Forest Owner Associations in Sweden ..... 12
2.1.1 Members in Forest Owner Associations ..... 12
2.1.2 Södra ..... 14
2.2 The Advisor's Role ..... 14
2.2.1 The Relationship with Members ..... 16

**3. Theoretical Framework** ..... **17**
3.1 Defining Variation ..... 17
3.1.1 Decision-Making Theory ..... 18
3.2 Factors Influencing the Work of Advisors ..... 19
3.3 Combining Theory ..... 21

**4. Methodology** ..... **22**
4.1 The Study ..... 22
4.1.1 Strategy for Data Collection ..... 22
4.1.2 Data Collection ..... 23
4.1.3 Data Analysis ..... 25
4.2 Ethical Considerations ..... 26
4.3 Limitations and Reflection of Methodology ..... 27

**5. Results** ..... **28**
5.1 Defining and Understanding Variation ..... 28
5.2 Dealing with Variation ..... 30
5.2.1 Identifying Obstacles ..... 30
5.2.2 Identifying Possibilities ..... 32
5.2.3 Relationships Influencing Decisions ..... 36
5.3 Advisors and the Forestry Context ..... 38

**6. Discussion** ..... **41**
6.1 Implications for Variation ..... 41
6.1.1 Defining Variation ..... 41
6.1.2 Obstacles and Possibilities ..... 41
6.2 Advice and Decisions ..... 43
6.2.1 Factors of Influence ..... 44
6.3 Advice in a Wider Context ..... 45
6.3.1 A Second Take on Obstacles ..... 47

**7. Conclusion** ..... **48**

**References** ..... **49**

**How Forest Advisors Help Shape or Forests** ..... **55**

**Appendix 1** ..... **56**

**Appendix 2** ..... **58**

**Publishing and archiving** ..... **60**

# List of tables

Table 1. The business areas of Södra and their function (Södra n.d.a) ..... 14
Table 3. Information about interviews ..... 24
Table 4. Letting forest advisors define what variation is to them, not listed in order ..... 28
Table 7. Summary of answers regarding obstacles, in no order ..... 30
Table 5. Summary of possibilities for variation in forestry as mentioned in interviews ..... 33

# List of figures

Figure 1. Stankevich's (2017) stages in the decision-making process by a consumer. ... 18

Figure 2. Modified version of the decision-making process that includes advisory services, based on Stankevich (2017) ..... 19

Figure 3. Conceptual framework of advisory influence on forest management decisions 20

Figure 4. Integration of the advisory framework with the forest owner's decision-making process ..... 21

Figure 5. Map of forest ownership in Sweden with the boarders of Södras operational areas added on (SOU 2020:73; Södra n.d.d)..... 27

# Abbreviations

| | |
|---|---|
| CCF | Continuous Cover Forestry |
| FOA | Forest Owner Association |
| FO | Forest Owner |
| NFP | National Forest Program |
| NIPF | Non-Industrial Private Forest |
| SFA | Swedish Forest Agency |
| SLU | Swedish University of Agricultural Sciences |

# 1. Introduction

The forest in Sweden covers approximately 70% of the country's land area, making it one of the country's most significant natural resources with ecological function, supporting a wide range habitats and ecosystems services (Roberge et al. 2020). Enander (2007) highlights the historical significance that the forests have had in shaping present-day society. During the early 20th century, the exploitation of forests led to a decline in timber yields and the deterioration of forest health and quality. This decline prompted the introduction of the 1948 forestry act, which emphasised on maintaining a stable supply of timber to the forest industry to ensure profitability. Similar issues in the 1970s and 80s spurred new regulations and increased environmental criticism from both government and non-governmental organisations. This growing awareness helped shape environmental policies and culminated in the forestry act of 1994 (Enander 2007). The act introduced a formal equality between production and environmental goals and marked a shift in Swedish forest policy. Instead of strict enforcement, the policy introduced the guiding principle of *freedom under responsibility*. This grants forest owners a say in how they manage their land, under the expectation that they will act in alignment with overarching environmental and economic objectives. The idea behind it being that informed, responsible forest owners will voluntarily act in the public interest without the need for direct government control. However, this place a high degree of trust in the knowledge, values and decision-making capacity of individuals.

In 2018 a National Forest Program (NFP) was created with the vision that the forest is a resource and should create jobs and growth as well as contribute to a developing bioeconomy (Näringsdepartementet 2018). The strategy of the program builds on the social, economic and environmental values and relies on collaboration and engagement between different actors across the forest sector (Näringsdepartementet 2018). In 2024 the Swedish Government launched an investigation into current policy, emphasising that the forestry should balance competitiveness and long-term sustainability (Regeringskansliet 2024). This investigation was met with welcoming reactions from the industry and with critique from environmental organisations (Dahl 2024; Roberntz 2024; Skogsindustrierna 2024). Critics argue that despite references to sustainability and biodiversity, production-related goals such as the supply of timber tend to dominate both policy outcomes and resource allocation.

One of the most influential drivers of climate change has been made out to be the unsustainable management of forests (FAO 2024). Forests are extensively managed to source renewable materials. In Sweden, the forest sector contributes around 3% of the GDP and the forest industry make out around 9% of total exports (Hallsten & Brenden 2025). Globally, Sweden is a known for paper manufacturing, timber production and other types of forest related products.
At the crossroads of increasing ecological expectations and continued industrial reliance, the Swedish policy model *freedom under responsibility* is put to the test.

Traditionally dominated by rotational forestry, utilising clear cuts and monocultures, Swedish forestry is urged to diversify and focus on variation (Skogsstyrelsen 2023a). Policies like the Green Deal promote more varied forest management and forest diversity as means to meet environmental targets and to foster a sustainable bioeconomy (EC 2021). The IPCC (2022) also state that more diverse forest practices will create more resilient forests for the future. When it comes to the implementation of these directives, the Swedish Forest Agency (SFA) refers to sectorial responsibility. This responsibility is in part is to be shouldered by forest managers and forest owners because of their authority over practical forest management (Skogsstyrelsen 2023a).

Since Swedish forestry relies on soft policy instruments, silvicultural management is heavily dependent on the knowledge and advice of forestry professionals (Appelstrand 2007). This places forest advisors, especially those employed by Forest Owner Associations (FOAs), in a strategic role. Their work spans timber procurement, operational planning and advisory services (Håkansson 2000). Effectively positioning them at the intersection between policy aspirations and practical forest management. Södra, Sweden's largest FOA, have faced criticism in the past for prioritising their industrial supply need. Experiences or perceptions of this kind can cause a decline in mutual trust between organisation and member (Guillén et al 2015). Given Södra's position, a loss of trust could pose a concern and indicate a wider systematic issue within the forest sector.

One potential cause of tension in the relationship between member and organisation is the divide between long-standing production-oriented practices and the call for multifunctional and ecologically resilient forestry. A tension that also has affected policy narratives (Carvalho-Ribeiro et al. 2010). The forest advisors are placed in situations where they must navigate these tensions and balance the objectives of both member and employer (Curtis et al. 2023).

Variation in forest management is increasingly highlighted as a strategy for a sustainable future. Yet the implementation of such practices faces obstacles: longstanding production-oriented structures, institutionalised priorities and conflicting expectations are stood in the way. Possibilities instead arise through growing policy support, shifting owner values and the strategic possibilities of the forest advisor's role who can guide management beyond traditional norms.

## 1.1 Purpose & Aim

This research aims to analyse the conditions for a more varied forest management from the perspective of forest advisors, focusing on how their role, advice and services operate within the process of forest management decisions. By adopting the approach of the advisor constituting the baseline, the study shifts the focus from the forest owner to the advisors and advisory process. Within this take on bottom-up methods the view shifts from overarching policy directives to how the contextual setting of forestry impacts forest management decisions aimed at variation and diversity.

Through semi-structured interviews with advisors employed by the forest owner's association Södra the research explores their experiences, the significance of their role and how their work shapes forest management practices. To guide the study specific research objectives have been formulated:

- How is variation in forest management understood by advisors and what possibilities and obstacles for more varied forestry can they identify?
- In what ways do forest advisors influence decisions regarding variation in forest management?
- How does the advisory process interact with the wider forestry context to shape management practices?

### 1.1.1 Scope and Limitations

The sample for the interview part of this thesis will be drawn from the population of forest advisors at an operational level, employed by the organisation Södra. This study is thereby limited to the southern part of Sweden where the organisation operates. It is also limited to personnel of one company, even though individual employment history can be different.

# 2. Background

## 2.1 Forest Owner Associations in Sweden

Forest owners' associations have had a significant role in the forestry sector for over a century. Many of them established themselves in the early 1900's and are rooted in cooperative ideals. These associations are characterised by their democratic governance structures and member-ownership (Kittredge 2003). Initially the purpose of the associations was to strengthen private forest owners market position by pooling resources and collectively selling them. FAOs seek to improve their members financial return from their respective forest holdings through management, planning and general assistance forestry-related questions (Berlin et al. 2006). Being a member in an association is voluntary and unrestrictive, for example it does not limit members from business with other forest companies (Kittredge 2003). Members are not required to pay annual fees, instead they make capital contribution based on the size of their forest property, which is capped at a limit. This capital is typically reimbursed upon termination of membership, with annual interest often paid on the invested amount. All members, regardless of the extent of their forest ownership or contribution, are granted equal voting rights. This is in line with the democratic structure that these associations operate by. One member has the power of one vote (Kittredge 2003).

The democratic principles that FOAs recognise has its strength in the involvement and participatory processes of their members. A structure that can be problematic since a high grade of involvement from members complicates the decision-making processes of the organisation, needing more time and effort (Kronholm & Wästerlund 2013). A study made on farmers cooperation's by Echeverri (2006) found that when member participation in cooperatives decline the aim of the cooperative increasingly prioritise economic goals. Suggesting that a gap can emerge between the cooperative's original principles and its new business-focused direction. Similarly, Kronholm (2016) describes how, in this shift toward a more business-like approach, members are increasingly seen as customers. Over time, democratic organisations like FOA's may evolve in a direction where the influence of their members reduces while the authority of the association's managers increase (Kronholm & Wästerlund 2013).

### 2.1.1 Members in Forest Owner Associations

The profile of the typical forest owner has changed significantly over time. Today's forest owners are no longer a homogenous group of forest farmers but are much more divers (Berlin et al. 2006). Many now reside urban areas, physically removed from their forests, and are becoming less dependent on them for income (Nordlund & Westin 2010). This shift in demographics has also brought changes in values, motivations, and behaviours. Studies suggest a generational shift, with modern forest owners displaying different attitudes toward forest use compared to earlier generations (Inglehart 2000; Nordlund & Westin 2010). For example, a Finnish study found that 'non-traditional' forest owners tend to harvest less

timber, indicating that ownership profiles directly affect timber supply (Kuuluvainen et al. 2014).

In terms of forest management practices, this implicates that a change in the forest owner's objectives might not overlap with the traditional concern of forest owners' associations, which is mainly timber production (Berlin et al. 2006). A challenging outcome can emerge from this situation with the FOA having to balance the business side of the organisation with the democratic principles rooted in the cooperation history. In combination with the evolving heterogeneity of members, this can lead to ramifications that makes the decision-making process among FOA leadership more difficult (Jussila & Goel 2006 see Kronholm & Wästerlund 2013). Jussila et al. (2012) discuss how sustaining democratic principles in co-operatives depends not only on formal structures but also on members' shared socio-emotional motivation, which can be undermined by internal divisions or lack of common identity. On the other hand, Andersson & Keskitalo (2021) found that there has only been a limited effect on forest management and forest use, despite growing diversity of private forest owners' profiles. Through reviewing literature, Andersson & Keskitalo (2021) instead found that property size, amount of debt, number of loans, single or joint ownership, gender and the property's distance to urban areas as factors with an impact on forest management.

It has been suggested that FOAs are slow to adapt their offered services to match the evolving goals and preferences of their members (Mattila & Roos 2014). This lag in responsiveness creates a disconnect from the wants and needs of the forest owner and the services provided by an organization (Mattila & Roos 2014). Häyrinen et al (2015) identified that the goals of NIPF owners concerning biodiversity conservation and aesthetic values where not as well covered by forestry service organizations as those of those producing a more monetary value. Service offerings have largely remained focused on industrial wood production, with limited attention given to forest owners who hold alternate interests. Standard management plans often reflect the professional foresters' cultural priorities of timber production rather than aligning with the broader values of forest owners (Fischer et al 2010). Owners with alternate interests have been viewed as a less profitable clientele and as a result have been less prioritised when designing service development (Häyrinen et al 2015). However, the trade of timber, in other words the delivery of goods, is a keystone in the economic relationship between member and organisation.

Kronholm (2016) found that FOAs are responding to a growing demand for support among members, driven by a decline in knowledge of basic forestry practices. Members need help not only with practical forest management but also with setting goals and objectives. Along the same lines, Lodin & Brukas (2021) found that advisors attributed deviations from ideal forest management partly to forest owners' lack of knowledge, among other factors. In response, associations are expanding their educational services to meet these diverse needs (Kronholm 2016). Additionally, Kronholm (2016) describes how FOAs are becoming more active in political advocacy to represent members' property interests.

In this evolving context, FOAs are important for private forest owners. While regarded as sources of advice and support, their formal roles in guiding practices position them to inform and potentially influence decision-making in Swedish forestry (André et al. 2017). Even if perceived importance does not always translate into direct influence (Kittredge et al. 2013 see André et al. 2017).

### 2.1.2 Södra

With its 52 000 members and consequently 2,8 million hectares of forest, Södra is the largest FOA in Sweden (Södra 2024). The association operates in the Götaland region where most (around 80%) of the productive forest land is owned by private forest owners (Skogsdata 2024). Table 1 showcases the five different business areas of Södra. As shown Södra is not only an association but also has its own industry (Södra n.d.a). The advisors operate in 'Södra Skog'. Södra describes the purpose of their advisors as providing members with comprehensive advice regarding family, property, and finances, with the aim of strengthening forest ownership and improving the profitability of the forest estate (Södra n.d.b).

*Table 1. The business areas of Södra and their function (Södra n.d.a)*

| **Business Area** | **Function** |
|---|---|
| Södra Skog | Purchase's timber and supplies their industries, while also trading externally, also manages members forests across 36 forest districts |
| Södra Wood | Encompasses Södras sawmills and wood refinement industries. |
| Södra Cell | Södras 3 pulp mills: Värö, Mönsterås and Mörrum |
| Södra Bioproducts | Handles the sales and marketing of chemical, energy and carbon products produced by them |
| Södra Building Systems | Focuses on the production of cross laminated timber (CLT) |

Södra is undeniably one of the most influential actors in the Swedish forest sector, particularly in the southern regions, where it plays a significant role in both trade and industrial production. In 2024, the company reported a turnover of 29 487 MSEK (Södra 2024). On its website, Södra presents its vision and core values as family-oriented, down-to-earth, engaged, and forward-thinking with its stated mission to "refine and renew the values of the forest farm" (Södra, n.d.c). The organization has recently undergone a structural reorganization, which included a shift in terminology as forest advisors were previously referred to as forest inspectors.

## 2.2 The Advisor's Role

Krott (2005) describes information and advisory services as informal policy instruments. Furthermore, this information, and by extension the basis of advice, is shaped by values and are subjected to certain power dynamics. Services provided always exist in a social and cultural context and should be analysed in accordance with that factor (Arnould 2007). The need for Södra to provide

services exist because of a demand from forest owners, due to the democratic nature of FOAs their values and needs should shape the contents of that service (Wittel et al. 2002 see Matilainen et al. 2023). The forest advisor task is to communicate this service to the forest owners.

The more effective way to communicate advisory services in forestry is said to be a collaborative approach. A requirement for this type of more tailored service is participance from the people being advised. Toman et al (2006) found that even though the above situation is ideal, it is less popular among participants who instead favouring direct or one-sided types of communication. From the perspective of forestry professionals, advisory services can be categorised based on how information is communicated and by the authority in the decision-making process (Hokajärvi et al. 2011). The one-sided method mentioned previously can be categorised as an informative approach, relying on information to the forest owner when their needs and decisions overlap. An advisory approach to this type of communication is more responsive and focused on the specific situation of the forest owner (Hokajärvi et al. 2011).

Advisors bring their own values into their work which influence how they interpret best practices and which management approaches they prioritise (Fischer et al. 2010; Matilainen et al. 2023). These personal guidelines affect not only the type of advice offered but also how it is communicated. However, within the organisational setting of FOAs, dominant norms, what Lawrence et al. (2020) describe as "FOKIS" (Forestry Knowledge and Information Systems), shape and constrain how these values are expressed. FOKIS conceptualises forestry as a system in which knowledge flows between four key dimensions: forest owners, policy objectives, advice providers and the tools and processes that connect them (Lawrence at al. 2020). In a Swedish context this system can be described as pluralistic. Although forest owners enjoy considerable autonomy, the overall governance remains state centred and rooted in production-oriented practices (Sergent et al. 2018). So even if an advisor is motivated by ecological concerns, institutional and systemic expectations may steer them toward production-oriented advice, aligning with broader organisational priorities.

The impact of soft policy instruments, such as communication and by extension advice, is not a one-size-fits-all and not always straightforward to assess. Utilising only one type of approach seldom encompasses the diverse needs and preferences of all forest owners (Hujala & Tikkanen 2008). Hokajärvi et al (2011) express in their article how the role of the forest advisor is changing along with the evolving nature of forest ownership. Tools used to communicate in the advisory context is turning into more customer-oriented approaches in modern family forestry. One tool used for communicating is forest management plans. Forest management plans have been criticised for lacking flexibility in addressing values like biodiversity (Pynnönen et al. 2018), showing how both the content and delivery of advice can impact implementation of forest management. In parallel, access to and quality of knowledge shapes their advisory capacity (Appelstrand 2007; Kronholm 2016). As mentioned earlier in the chapter, private forest owners

increasingly have less forestry-related knowledge (Andersson & Keskitalo 2021), the advisor's role as a source of knowledge becomes more important.

### 2.2.1 The Relationship with Members

Trust is a key pillar in the advisory relationship between forest owners and advisors, enabling constructive communication and effective guidance. As Hokajärvi et al. (2011) note, distrust can undermine this process, casting advisors as illegitimate or insincere. Establishing trust relies on the advisor's contextual knowledge of both the forest and its owner, which helps build credibility (Guillén et al. 2015). However, Guillén et al. (2015) also observed tensions in a local case study of Södra, where the organisation was perceived to prioritise industrial interests over those of individual forest owners. This focus contributed to a sense of detachment, particularly as forest management was often outsourced and poor outcomes reinforced perceptions of incompetence. Despite this, most members remained due to the economic benefits of membership. Guillén et al. (2015) also found that while personal trust in individual advisors often existed, market pressures, especially the emphasis on timber procurement, limited the scope of advisory services, leaving other aspects of forest management in the back seat.

At the same time, it is important to acknowledge that forest advisors themselves may feel misunderstood or unfairly criticised. As Kronholm (2016) highlights, many advisors see their role not as exploiters, but as key contributors to sustainable development and the transition toward a green economy. This suggests a disconnect not only between advisors and forest owners but also between public perception and professional identity.

# 3. Theoretical Framework

## 3.1 Defining Variation

It is important to understand what is meant with the word variation. Generally, words such as variation and diversity spark plenty of emotion, the forest sector being no exception. The tone and debate around forestry is often described as polarised and emotional subject. As mentioned in the first chapter, the Swedish forestry model is built on the premise of *freedom under responsibility*, where the goal is to value economic and ecological values the same. Since the SFA has identified varied forest management as a key component in reaching policy targets, it is important to understand what this means.

The Cambridge Dictionary (n.d.) defines the word variation as a *difference* or a *change*. In ecological and scientific contexts, variation can be examined across several levels with some examples being: genetic, species, structural, spatial and functional. It refers to the presence of diversity and heterogeneity within a system. In forestry variation typically refers to the diversification of forest structure. This might involve things such as species composition and management approaches.

Current forestry practices have led to a shortage of old-growth forests, presence of dead wood and tree species diversity (Skogstyrelsen 2023b). To counter act this, the SFA wants to promote broadleaf species, increase the use of continuous cover forestry (CCF), enhance biodiversity and the use of cultural values. This has been labelled as varied forest management (Skogsstyrelsen 2023a), and is identified by the SFA to be a key component in reaching environmental targets (Karlsson et al. 2022). Even if considerate action in favour of nature conservation is more common in today's forestry than before the 1990's, the common practice is still to manage forests in even-aged stands and dominated by one species, most often Norway spruce or Scots pine (Skogsstyrelsen 2023b). Traditional forest management approaches are increasingly being challenged by alternative perspectives. These are often centred on forests having other values then those solely focused on timber production. Instead highlighting forests as providers of ecosystem services, tools to mitigate climate change and as recreational spaces. Mitigation of the growing polarisation of conflicts regarding land-use, forest governance has been seen to take on new forms. Especially regarding ideals connected to sustainable development (Sergent et al. 2018).

It is also important to consider the scale at which variation is applied. At the landscape level, maintaining ecological functions that extend beyond individual forest stands is important. It allows for the preservation of habitat connectivity, species diversity, and ecosystem resilience, which are often not achievable through stand-level measures alone (Naturvårdsverket 2019). Diversity and variation at the local scale, such as the stand or property level, must also be considered as these smaller-scale conditions influence the functioning of larger forest ecosystems (Chave & Bascompte 2013). Both scales are interdependent, variation at one level supports the effectiveness of variation at another.

Despite the rhetorical emphasis of the word, the term is loosely defined in operational forestry. As a result, it becomes not only an ecological concept, but also a social and political one that is subjected to interpretation. Given this ambiguity, this thesis does not assume a single, fixed meaning of variation. Instead, it approaches the concept as something that is defined and made meaningful in practice, particularly by forest advisors. How they understand, interpret and communicate variation provides insight into the application of policy goals. Similarly, *obstacles* and *possibilities* for variation are understood in relation to how forest advisors perceive and act upon the concept of varied forest management. Building on the understanding of variation as both an ecological and social concept. The term refers not only to specific management practices, but also to the shift, or change, from rotational forestry. Obstacles, therefore, include factors that hinder the implementation or consideration of such varied approaches. Possibilities refer to the opportunities and conditions that enable or support the uptake of more diverse management practices.

### 3.1.1 Decision-Making Theory

Decision-making as a process underpins how individuals and groups evaluate options. In the context of forestry, decision-making can be shaped by a range of variables and characteristics but typically boils down to different forest management practices (Matilainen et al 2023). Decisions are often not limited by a lack of information or knowledge but rely on collaboration to ensure that knowledge is not only produced but also applied effectively within evolving systems of power and responsibility (Weichselgartner & Kasperson 2010). Existing framework describing the decision-making process from the consumers point of view have previously been developed. Figure 1 illustrates the approach described by Stankevich (2017).

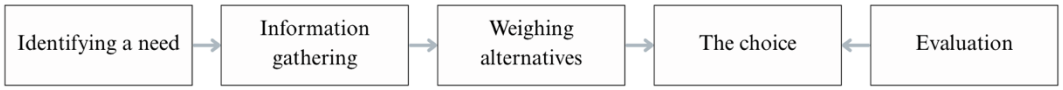


*Figure 1. Stankevich's (2017) stages in the decision-making process by a consumer.*

This model is based of decision-making in consumer behaviour research. Therefore, it's of relevance to know that forest owners have been found to be both positioned and perceived as consumers rather than suppliers (Andersson & Keskitalo 2021). The process by Stankevich (2017) begins with identifying a need that comes from personal motivations or external influences, a problem that requires fulfilment. Next, there is the phase of information gathering to address the need. This stage can be an external or internal process, either using ones' own experience or through surrounding sources. In the next stage, these alternatives are assessed and weighed against each other before 'the choice' or final decision is made in the fourth stage. The decision, or choice, is then formulated after this step, potentially different than the from the initial intention. The last step in Stankevich's decision making process is the post-choice behaviour of evaluation, where reflection on the decision leads to consumer satisfaction or dissatisfaction.

While the forest owner ultimately makes the decision, it is shaped by information and guidance provided by an advisor, which is the focus here. Matilainen et al. (2023) highlight that forest owners limited decision-making capacity and lack of access to relevant information can significantly affect the rationality of their choices. Pynnönen et al (2018) express the importance that service providers of advice have, especially regarding nature management. In addition, Howlett et al. (2009) describe how a shift toward 'new natural resource governance arrangements' leans away from hieratical and market driven actions, instead moving towards methods partly based on information exchange. This underlines the importance of the 'information gathering' in Stankevich's decision making process and motivates the inclusion of 'advice', see figure 2 below.

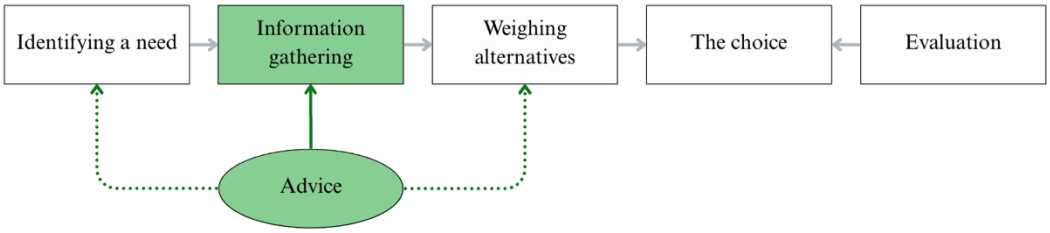


*Figure 2. Modified version of the decision-making process that includes advisory services, based on Stankevich (2017)*

In this context advice refers to an outreach-based service aimed at sharing knowledge and guidance to support forest owners in making informed decisions and improving the effectiveness of forest management (Lawrence et al. 2020). The entity providing the advice can extend beyond information gathering, both to identifying needs and by weighing alternatives. Advisors can actively initiate the decision-making process by presenting the forest owner with specific issue or opportunity requiring attention. Matilainen et al. (2023) highlight that decision-making in forest management can take multiple forms, from binary choices to more context-dependent processes. One such approach, presented by Hujala et al. (2009), categorises forest owners based on their characteristics and assesses their decision-making power accordingly. Among these categories, the group 'trusting realisers' tends to delegate decision-making authority to professionals. The presence of FOAs in decision-making by forest owners have also been linked to the forest owner experiencing greater confidence in their forest's resilience, while simultaneously having a heightened awareness of climate risks and the perceived need for adaptation (André et al. 2017). Understanding how decisions are formed is essential to exploring how advisory services influence what happens in our forests, particularly in the context of diversified forestry.

## 3.2 Factors Influencing the Work of Advisors

Figure 3 presents the conceptual framework used to understand how advisory influence affects forest management decisions, particularly concerning variation and diversity. The contextual background of Figure 3 represents the broader social and ecological context in which advisory interactions are embedded. For this study this includes environmental and economic policy goals (the Forestry Act,

the NFP), forest owner demographics (Berlin et al. 2006; Inglehart 2000; Nordlund & Westin 2010), public discourse (Carvalho-Ribeiro et al. 2010), market pressures (Pülzl et al. 2014) and ecosystem characteristics. All these instances affect both what kind of advice is expected and what kinds of decisions are possible or desirable. The framework emanates from the advisor, in their service to the forest owner, they provide facts, knowledge and enable management (André et al. 2017). Through the interviews, it was understood that they can both inform, filter and frame the contents of these provisions.

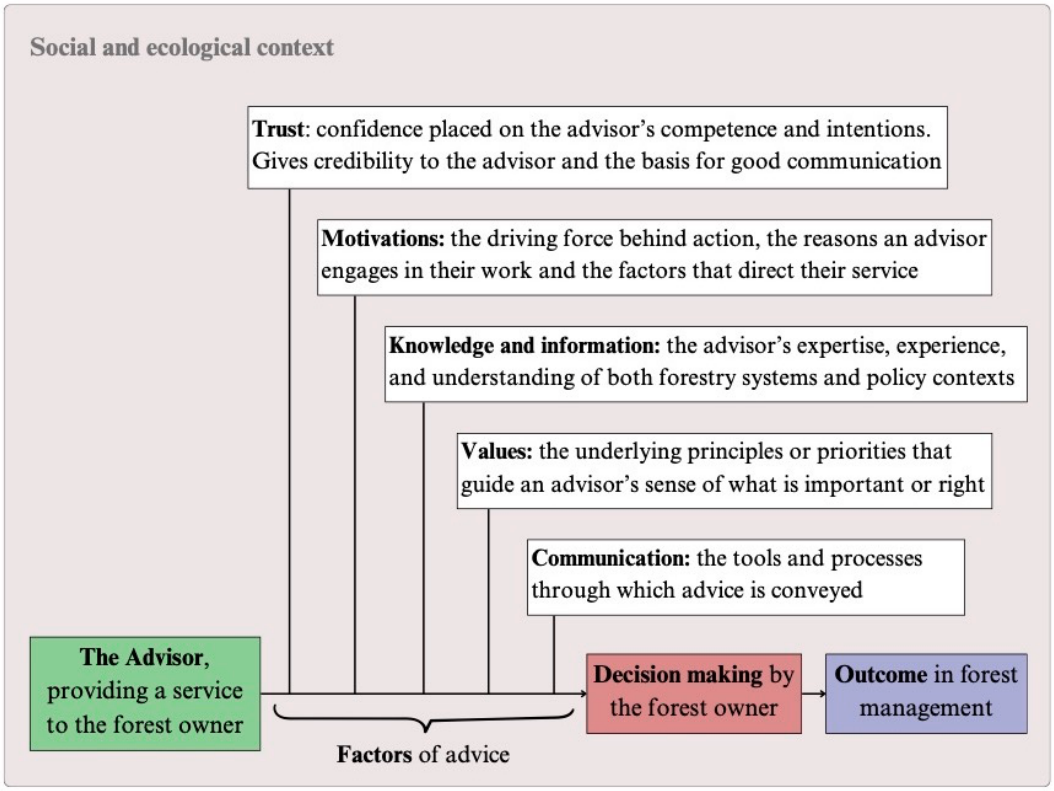


*Figure 3. Conceptual framework of advisory influence on forest management decisions*

The framework focuses on five interrelated factors that influence the advisory process: trust, values, motivation, knowledge & information and communication. A substantial body of literature examines factors that deal with advisory processes. An integrated perspective, where the dimensions act not in isolation but rather function together as interdependent components that shape the content and delivery of advice, is of relevance to apply. Bringing these factors together into an analytical framework that allows for a more comprehensive understanding of the advisory process, one that reflects its relational and contextual nature. Rather than treating these factors as isolated influences they are placed at the centre of how advisory interactions unfold, how advice is shaped and ultimately how decisions of forest management are made.

Trust has been found to be a crucial component of advisor-forest owner relationships, enabling cooperation and influencing whether advice is followed (Guillién et al. 2015; Hokajärvi et al. 2011). Values influencing how advisors interpret forestry goals and frame advice and are shaped by both institutional and

personal experiences (Fischer et al. 2010). Motivation affects how actively advisors promote specific practices and is influenced by organisational goals, professional identity and external demands (Hokajärvi et al. 2011; Stankevich 2017). Knowledge and information are central to the advisory role, especially insight of changing ownership structures and increasing reliance on external expertise (Andersson et al. 2020; Kronholm 2016). Communication determines how advice is presented and adapted to the forest owner's context (Andersson & Keskitalo 2019; Lawrence et al. 2020).

The forest owner is ultimately the decision-maker, in this context they are a 'consumers' of an action or item of relevance to his or her forest, in other words a choice in forest management (Matilainen et al 2023). This choice in forest management represents the outcome of the process that the framework illustrates.

## 3.3 Combining Theory

The framework presented below in Figure 4 integrates the theoretical components of this study into the decision-making process of forest owners. Anchored in Stankevich's (2017) model, it highlights how advice plays a role in decision-making by forest owners. Advisors influence these choices through factors like trust, communication, knowledge & information, motivation, and values.

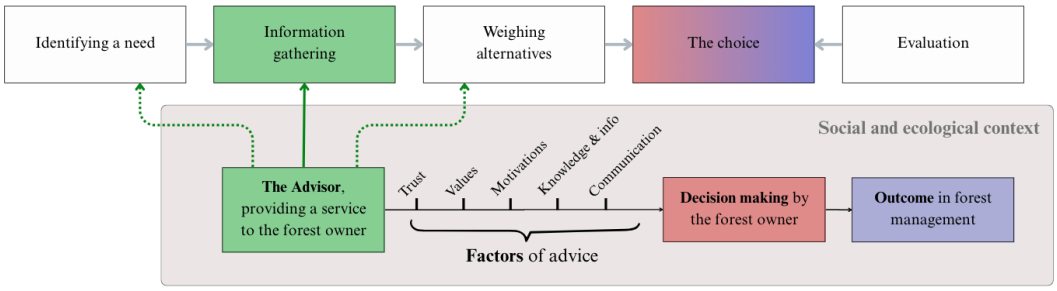


*Figure 4. Integration of the advisory framework with the forest owner's decision-making process*

In summary, Figure 4 shows how decision-making is shaped not just by personal factors or advisor relationships but also considers the surrounding context.

# 4. Methodology

## 4.1 The Study

The timeline of this study can roughly be sorted into three sections. As a first step (1) the topic was introduced to me by my supervisor who provided an initial, loosely defined framework. This was then further developed by me through reviewing literature and relevant documents, leading to the formulation of the research aim and problem background. The second stage (2) involved preparing for and conducting the data collection. Lastly (3), the material was analysed, and the results compiled and put into writing.

Initially there was a theory focus to understand the context, much of it built the introduction and theoretical background of the thesis. However, it was not addressed in a way which created a hypothesis that then could be tested. Bryman (2018) explains this other way of thinking, that the theory is something that is arrived at after research has been done and thus part of the outcome in the research process. Robson & McCartan (2016) describes the typical features of qualitative research. It focuses on understanding social phenomena through something other than numerical data. Emphasising on meanings, context and perspectives. By using an inductive approach that, again, allows theories to emerge from the data, it values a flexible research design. Qualitative studies are often smaller in scale, prioritising insight and the individual experiences of those involved (Robson & McCartan 2016).

### 4.1.1 Strategy for Data Collection

Initially a snowball sampling method was intended for participant recruitment., aiming to utilise the existing networks between advisors to identify individuals with relevant experience as well as to speed up the interviewing process. However, as the recruitment process progressed it became evident that the anticipated network-based referrals in between advisors were limited in scope and yielded fewer participants than first expected. As a result of this the strategy shifted towards a randomised approach using the public contact details to advisors available on Södra's website. This adjustment allowed for the inclusion of a more diverse range of individuals participating, ultimately contributing to the enrichment of the dataset and ensuring that a wider range of perspectives were represented in the study. Many of the advisors were reluctant to recommend colleagues for the research, often referring to a lack of interest among their colleagues. In contrast, when participants were contacted via telephone through a randomised sampling approach, the general response was more positive, with many advisors expressing interest in the study. To maintain diversity in the interview sample, it was important to also reach individuals who might have had a lower level of interest in or engagement with the topic of variation and diversity. Employing a randomised recruitment method increased the likelihood of including such individuals, thereby broadening the range of perspectives represented in the data.

A flexible approach to sampling is a common practice in qualitative studies (Bryman 2018). Sampling strategies in qualitative research are often iterative and responsive, allowing the researcher to adapt the method according to field realities. Random sampling was chosen over other kinds of sampling to reduce the influence of bias in the participant selection process. The randomised sampling process began with the creation of an Excel spreadsheet containing all of Södra's operational areas. Using Excel's RAND () function, a random operational area was selected. In the second stage, a forest advisor within the selected area was also chosen at random using the same function. By randomising both geographical area and individual advisors the approach aimed to ensure that participants were not chosen based on convenience or interest in the topic, thereby supporting more credible insight.

Advisors were then contacted directly by phone using the publicly listed telephone numbers. If the advisor answered, they were informed about the study, including that it was part of a student thesis, and were invited to participate in an interview. In nearly all cases, those who answered agreed to take part, and a time was scheduled for a Microsoft Teams interview. If there was no answer, a follow-up email containing the same information was sent, inviting them to reply or call back if they were interested in participating. Once a time was confirmed, participants received an information sheet outlining the purpose and format of the interview, as well as details concerning ethical considerations such as data handling and GDPR compliance. Participants were asked to read this document and provide their consent prior to the interview.

The inclusion criteria for the study were rather straight forward. They had to be a current forest advisor at Södra, willing to provide informed consent and be able to engage in an interview via Microsoft teams. A total of ten forest advisors were interviewed for this study. Qualitative research topics call for depth an insight (Bryman 2018). The decision to conclude data collection at ten participants was informed by the information saturation point. The stage where no new themes, perspectives and insights were identified in the interviews (Bryman 2018).

### 4.1.2 Data Collection

The interviews were conducted using a semi-structured and flexible approach, guided by a set of overarching themes (Bryman 2018). By formatting the interviews in a semi structurally the goal is to encourage the replies of a more complex and reasoning character (Häger 2021). To support this, an interview guide (see Appendix 1) was developed to reflect the central themes and objectives of the study. The questions were formulated to be open-ended, avoiding simple "yes" or "no" responses, to encourage more elaborate, reflective, and in-depth answers from the participants (Häger 2021). The interview guide, attached in the appendix, was organised into five thematic sections. The first section focused on the participant's background. The second addressed the relationship between members and advisors. The third explored opportunities for promoting more varied forestry practices. The fourth examined the perceived barriers to implementing such diversity in forestry, and the final section focused on how the advisor perceived their role in the broader context of forest policy. Conducting

semi-structured interviews requires a degree of spontaneity and adaptability on the part of the interviewer. The strength of this method lies in its thematic orientation rather than strictly following a sequence of predetermined questions (Bryman 2018). Although participants had not seen the interview guide in advance, many naturally touched upon the intended themes as the conversation progressed. In those instances, the order of questions was adjusted during the interview to maintain a natural conversational flow and to better accommodate the participants' narratives (Bryman 2018). To test the interview guide and to practice the art of interviewing, a mock-interview was held as preparation. After this first interview the guide went through revision and analysis.

All interviews were conducted via online video meetings using Microsoft Teams. The first interview was held 17th of February 2025, and the final interview took place on the 18th of March 2025. At the start of each session, participants were asked for their consent to record the interview. These recordings were subsequently used for transcription of the conversations. On average the interviews lasted around 50 minutes, the longest interview being an hour and the shortest being 37 minutes. Kvale (1997) describes the characteristics of a good respondent. They are cooperative, motivated, articulate and knowledgeable. They also show consistency and honesty in their responses, providing coherent accounts without contradictions and stay focused on the topic. Most of the participants in this study aligned with Kvale's (1997) characteristics of a good interviewee. Most thought the topic to be of interest and were happy to share their thoughts. One interview with less engagement stood out since it had the shortest duration in comparison to the others. Table 3 gives an account of the duration of the interview, the educational background of the interviewee and how they described the area that they work in.

*Table 2. Information about interviews*

| Time | University & education | Area they work in |
|---|---|---|
| 1h 1min | Bachelor (LNU) | A lot of spruce and pine but the landscape is still varied |
| 1h | JM (SLU) | Close to the coast, the topography is very hilly. Spruce dominates |
| 38 min | SM (SLU) | Landscape varies with farmland/forests: mostly spruce, pine to the north and a lot of broadleaves |
| 53 min | SM (SLU) | 50-50 spruce and pine, with some elements of broadleaves |
| 46 min | JM (SLU) | Mostly spruce but mixed with both pine and broadleaves |
| 57 min | JM (SLU) | Varied landscape and topography. 80% coniferous forest, 20% broadleaves |
| 59 min | SM (SLU) | Higher elevation, mostly spruce. On lower elevations (river valleys etc.) more broadleaves. |
| 38 min | SM (SLU) | Mix between farmland and forestland, 50-50 spruce/pine with elements of broadleaves |
| 37 min | SM (SLU) | Mixed, mostly pine then some spruce and broadleaves<br>Skewed age distribution |
| 55 min | SM (SLU) | Mostly Spruce, some broadleaves |

LNU is an abbreviation for Linnaeus University, JM and SM are abbreviations for *Jägmästare* and *Skogsmästare*.

### 4.1.3 Data Analysis

Before any formal analysis was conducted, each interview was summarised using a mind map to highlight key words, concepts and general ideas brough up by the participants. This initial step served to deepen familiarity with the dataset and provided a visual overview of the main points raised by the advisors. These mind-maps also supported early reflections on potential patterns and themes, helping to guide the analytic process.

Software used for the thematic analysis was Taguette. The data were analysed using a thematic approach, which allowed for the identification, examination, and analysis of patterns in the qualitative data (Bryman 2018). This method is well-suited for exploring an individual's perspective and experience, while maintaining a flexibility in the analysis. The analysis combined both deductive and inductive strategies, some codes and themes were developed in advanced, using the preliminary mind-map reflections, while others emerged organically from reviewing the transcripts during analysis. This form of blended approach enabled a structured yet flexible exploration of the data. As the transcripts were coded, an iterative process of theme development and comparison was ensured to make sure the findings remained true to the participant's account. The process followed principles set out by Bryman (2018).

The coding table that was used in this process is found in Appendix 2. It is important to note that while the coding scheme is organised into themes such as 'Factors and advice' and 'Possibilities', many of the codes represent related dimensions that can operate in multiple aspects of the advisory process. For instance, 'trust' may function as both an influence on advisor-FO interactions and as a possibility for change favouring variation. In cases of overlap, segments of transcription may have been coded under more than one theme to capture their full significance.

A summary of the analysis was also sent back to the participants of the study. This was done to enhance the credibility of the findings through participant validation. In qualitative research this involves sharing the interpretations and findings from the data with the participants to confirm or question the researcher's accuracy (Lindheim 2022). Although no response from participants came from this, limiting clarification or correction, it was an important step for transparency in the research.

The results of the study were presented in a structured format, where key themes were summarised and supported with quotes from participants. Since the interviews were done in Swedish they had to be translate into English, the translation tries to capture the expressions used as well as possible since it is important to preserve this in citations (Bryman 2018). This approach ensured that the analysis remained grounded in the data while allowing for a clear presentation of findings.

## 4.2 Ethical Considerations

Bryman (2018) emphasises on the importance of ethics in qualitative studies and mention some parameters that ensure this. Before any interviews took place, all participants were informed about the research and its purpose. This is referred to as the requirement of information. Prior to each interview the participants were told to read a document with information that outlined the purpose of the study and the ethical principles that the study follows, especially regarding storage of data. Depending on whether the contact was made via email or telephone participants also received either written or verbal information about the study. They were also given the opportunity to ask questions and were informed that participating in the study is voluntary and could be withdrawn at any point during the study (Bryman 2018).

The process also addresses the requirement of consent which entails that participation in the study must be approved by the individual and that they retain full control over their involvement. Bryman (2018) also outlines the requirement of usage and confidentiality, both of which this study considers. The requirement of usage stipulates that the collected data may only be used for the purpose of the research. Confidentiality was ensured both through this limitation of use and by anonymising the material during transcription. No names or identifiable details that could be traces back to individual interviewees were included.

## 4.3 Limitations and Reflection of Methodology

Since the sample is limited to employees of the forest owner association Södra, the findings may reflect specific organisational conditions unique to the association. These contextual factors could shape the experiences of individual forest inspectors. Internal policies of Södra, or the jargon of employees, may influence the how an advisor perceive their role. As such, the insights gained in this study can offer depth into the perspectives of advisors in this setting and should be cautioned for generalisation since they may not fully represent the experiences of all forest advisors in Sweden. To account for the context-specific nature of the data, this study situates its findings within the organisational and geographical setting of Södra, the dominant FOA in the Götaland region. Ownership structures also vary regionally. Figure 5 displays a map of private forest owners with less than 1000 ha of forests in yellow (NIPF owners) and state, forest companies and other large forest owners in green (non-NIPF owners) along with Södras operational area (SOU 2020:73; Södra n.d.d). This figure illustrate the difference in ownership structure, NIPF ownership being more prevalent in southern Sweden with other types of owners dominating in the north. This distinction may have an impact on the relationship structures and dynamics of advisors and NIPF owners. The type and conditions of forests is also different in southern and northern Sweden, *limes norrlandicus* marks where the climatic boarder where the southern and northern regions meet (Håkansson 2000). The south generally offering more productive land and a milder climate.

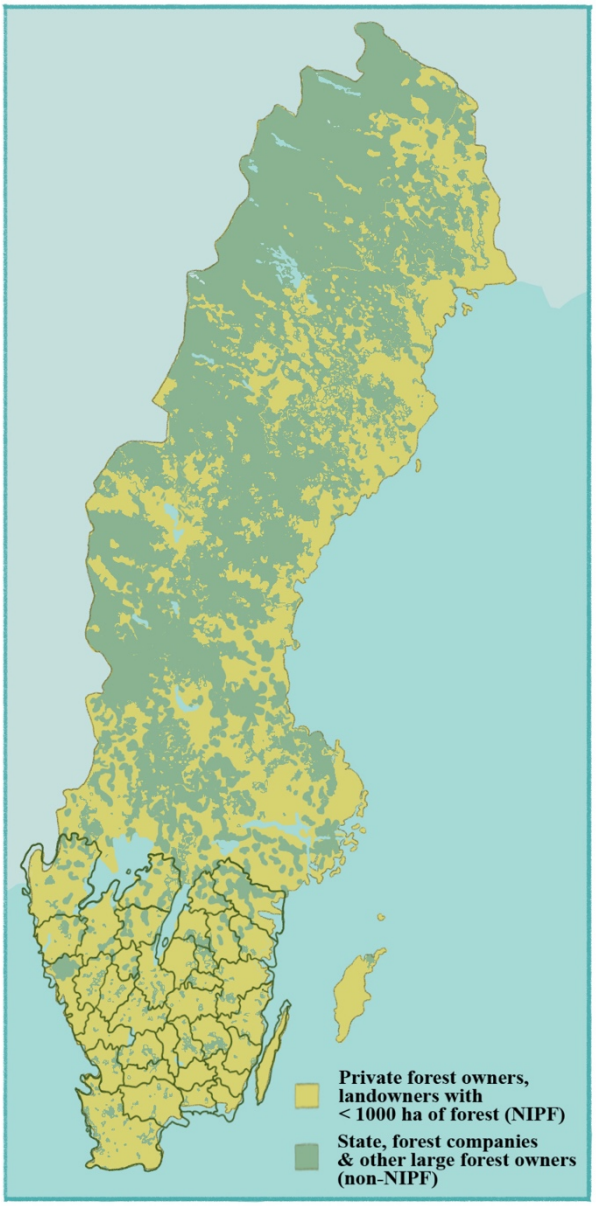


*Figure 5. Map of forest ownership in Sweden with the boarders of Södras operational areas added on (SOU 2020:73; Södra n.d.d)*

# 5. Results

## 5.1 Defining and Understanding Variation

An important part in the interviews was letting the interviewee define the term variation, in the context of forestry, before exploring the topic in greater depth. The first section of this chapter will therefore present the answer to this question. In table 2 there is a summary of what each interviewee answered to the question (see Appendix 1): *what do you think variation in forestry is?*

*Table 3. Letting forest advisors define what variation is to them, not listed in order*

| Summary of answers |
|---|
| Different tree species, different goals/targets regarding nature conservation and production, range in forest age, different management practices. Variation from private ownership. |
| Private ownership<br>FOA's does have power in their advice but there is always someone who won't listen<br>The right species in the right place |
| Private ownership<br>Diverse opinions cause no one to manage their forests the same |
| Private ownership<br>Different goals between FOs creates variation in tree species and what kind of forest management is practiced |
| Site adaptation, forests aren't homogenous: the right species in the right place<br>Different goals<br>Variation in forest management actions |
| Site adaptation<br>Range in forest age<br>Different tree species<br>Continuity |
| Private ownership: variation on a national level, more forest owners in southern Sweden<br>Doesn't have to be on the same property. |
| Site adaptation, the right species in the right place<br>Adapting management to the site's best interests. |
| Site adaptation, let nature (topography and moisture content of the ground) steer management activity. |
| A property with a little bit of everything<br>Range in forest age<br>Both production and nature management goals<br>Adapt management to site conditions |

In terms of forest management, the topic prevalently leads down the path of CCF or variations of it, such as gap cutting, through retention trees or through selection systems. The theme being anything but the clear-cutting method. But this was not the only way variation was defined. The interviewees consistently referred to

private forestry as inherently leading to variation in forestry. According to their responses, private owners have diverse goals, values and perspectives on forest management. Forest owners make their decisions according to their own rational creating variation on a landscape level, on and in-between forest properties. Interviewee 1 describing their thoughts on how goals of individual forest owners affect variation:

> Forestry today, I think, is variation. If you don't work as an advisor or purchaser, I don't think you understand that. It's so incredibly different. I have one member who wants to cut everything down—as soon as it's legally allowed, he cuts it and replants. There's not a single stick out of place. And then there's another one who says, 'This 130-year-old forest with lots of dead wood, we're not cutting it,' because he doesn't want to. It's never even up for discussion to cut it, because the money doesn't mean anything.

Another key aspect highlighted from the interviews was the importance of adapting to site conditions. A commonly cited principle in the interviews was "the right species in the right place", emphasising the need to adapt tree species selection to the biological and ecological conditions necessary for the species. The mixture of tree species ties into this as well. Interviewee 5 explains their thoughts on variation in connection to site adaptation:

> Variation, to me, is really much about adapting to what is suitable for the area. The forest isn't homogeneous. Site productivity and soil types aren't homogeneous either. So a tree species composition that's adapted to the land.

This adaptation was not exclusive to species selection but also encompassed forest management practices, as interviewee 9 put it:

> I think that site adaptation, having the right tree species on the right type of land, is important. And of course, also using different management methods depending on what's best for the land.

Other factors, often mentioned in connection with private ownership and site adaptation was that of having a mixture in species and in forest age. Interviewee 4 summing it up:

> Variation, it is probably a landowner or a property that has a bit of everything. It has both some older forest, some mid-range aged forest and some younger forest. There might be areas dominated by broadleaf trees. Some areas may be more focused on production, other areas perhaps more on nature conservation management. That, to me, is variation.

In conclusion private ownership and site adaptation are perhaps the stand-out take-aways from the interviews. This includes then targets and opinions of forest owners and the diversity that stems from this. As well as the landscape perspective of private forestry bringing variation into forests on a zoomed-out scale. Adapting to sites and bringing this to the forest management. And just having a diverse forest age-range and species wise.

## 5.2 Dealing with Variation

### 5.2.1 Identifying Obstacles

One objective of this thesis is to identify the obstacles that arise in the everyday work of forest advisors when faced with variation or diversified forestry practices. This section presents and examines the challenges and obstacles described by the interviewees, into the factors that may hinder or complicate implementation of these practices. In table 3 a summarised version of each interviewees response to what they thought is/are the most major obstacle(s) when implementing more varied forest practices.

*Table 4. Summary of answers regarding obstacles, in no order*

| Summary of answer |
|---|
| Lack or interest among advisors or timber buyers<br>Difficult to help FO understand what the forest management will look like<br>Not do it for profits but for interest |
| The attitude of forest owners<br>Terrain/topography of the landscape |
| Profitability, better now with higher timber prices.<br>The FO has the deciding voice |
| Generational differences<br>Pre-existing forest conditions such as homogenous spruce forests |
| Begins with what has historically happened in the forest, often managed, single-story forests.<br>Hard to know what happens long term, next generation might not follow |
| Generational differences<br>The economic aspect: profitability<br>Detailed planning not sustainable if “everyone would do it”<br>Not enough practical knowledge |
| Homogenous spruce forests planted on old farmland<br>High demand on timber volume, the forest must sustain many different things |
| Profitability, also in connection generational shifts (inheritance)<br>Hard to find other ways to make the forest profitable |
| Missing a system that is ready to implement, you need to do your research<br>The FO must be very interested |
| Browsing damage.<br>Difficult to change homogenous spruce forests |

The responses from the interviews reflect a range of perceived obstacles related to working with variation in forestry. While there were some likenesses in replies, no strong trend stands out. Several highlighted the challenge posed by the widespread presence of homogenous spruce stands, often (not always) planted on old farmland, having undergone very uniform management. These stands were seen as difficult to convert to forests with more diversity without clear-cutting and

starting over. The following citation comes from interviewee 10, speaking about management if homogenous spruce stands:

> It's very difficult for us to convert homogeneous spruce forests, because it results in damage to them. And it's too great a risk for forest owners to take here…It's actually to the point that when we talk about continuous-cover forestry here, the advice we give is that if you have an established, even-aged spruce stand, you shouldn't do selective cutting or high thinning, instead, you should clear-cut. Then you can replant with a more varied mix of tree species and essentially start working with continuous-cover forestry in the second generation.

Economic aspects, particularly regarding profitability, were also mentioned with a frequency, often saying that alternative management from clear cutting lacks economic viability. But it was also brought up that with favourable timber prices it doesn't have to be unprofitable. The following quote is from interviewee 3, talking about how timber prices create an opportunity for alternative forest management practices:

> With the prices we have today, there's a much greater opportunity to make a profit on these kinds of more specialised felling's. But that's only because the prices are so incredibly good right now. It used to be a barrier before, it's hard to make it economically viable. You're harvesting less volume, but you're still driving a lot of machinery. There's a lot of machine operation involved just to find the cubic meters you're aiming to take out if you're thinking about selective cutting.

There were also quotes like this one from interviewee 6, describing of continuous cover forestry is more of a gamble in an economical sense:

> The economic aspect, how much one is willing to gamble. If someone has purchased a property, it becomes even more problematic because they might need to bring in a lot of money. If they then want to practice continuous-cover forestry, it's difficult to free up capital quickly.

Other obstacles included forest owner's attitudes, advisors and timber buyer's attitudes, generational differences, limited practical knowledge and a lack of clear systems to use when implementing variation in practice. Some also noted that successful diversification often depends on an engaged forest owner. Terrain and topography were mentioned, but only by a single respondent. Interviewee 1 sharing their thoughts on how a lack of engagement can limit the potential for variation:

> Forestry is very much a secondary concern for many, there are few who are actual foresters. But there are many people who own forests, but hardly anyone manages it themselves. That also limits the potential for variation. This kind of ties back to what we talked about earlier. It all comes down to how much time and energy one is willing to invest in it.

When asked if an added workload is an issue in connection to variation, many said that it would take a little more effort on their part. Already it was said by

pretty much all the advisor that time is a limiting factor in their work. However, this added work was not seen as a wholly bad thing, many saying that it was more fun to work this way. Interviewee 4 talking about their experience in regard to workload:

> A little, perhaps, it does take a bit more effort when things fall outside the standard model. If someone has specific requirements when it comes to PCT or harvesting and such, then yes, it requires a bit more attentiveness. In those cases, I also need to step up and be clear: 'I'm unsure about this. This might work, but I don't have experience with it.' You have to explain, share your own experience, and say what you believe will work. Then it's up to them. As long as it's within the law, it's their decision how they want things done. You just have to adapt. But sure, it does mean a slightly heavier workload. At the same time, I think that kind of work is fun, customizing things a bit for the landowner so they feel satisfied. I think you get good feedback when you've made that extra effort.

The nature of a FOA was also discussed. In the interviews they were asked if they felt any pressure to perform in a certain way. There was a consensus that there was pressure, but the reason for that pressure was not entirely agreed upon. Södra does not have an official volume requirement that the advisors must fill, they are instead measured on how many meetings they have with members. However, some advisors said that they felt unofficial pressure to make sure they meet the timber demands from the industries. The advisors that didn't mention this kind of pressure instead talked about feeling pressure to meet with members. Interviewee 6 talking about pressure in connection to volume requirements:

> The volume requirement is always in the background. Then you could say that with the reorganization, when we went from inspectors to advisors, the idea was that this requirement should be lifted off each individual's shoulders a bit. And now it's more about working as a team, a group. But then again, the group has a goal, which means each individual still has to contribute. So volume will probably always be an important factor, but it's not just volume that Södra, as an employer, wants me to work on. It's all the aspects around the forest property, so it's not like you're only measured on how much volume comes in. Still, when you've worked with this for many years, you kind of always feel the whip at your back, that there needs to be activity around you. So yes, I definitely feel pressure.

Overall, the responses reflect a complex picture rather than a uniform set of challenges. Obstacles and possibilities also don't have to be mutuality exclusive.

### 5.2.2 Identifying Possibilities

Table 5 summarises the main factors that contribute to variation. It organises these factors into five categories: Forest Owner Motivation, Organisational Incentive/Policy, Silvicultural Methods, Education & Engagement and Social. For each category, the table lists specific examples or methods and explains the motivations behind them and identifies the key stakeholder(s) involved.

*Table 5. Summary of possibilities for variation in forestry as mentioned in interviews*

| Category | Example factors or methods | Motivation or Purpose | Driver |
|---|---|---|---|
| **Forest Owner Motivation** | Personal goals and values<br>Pride and responsibility<br>Dislike of clear-cuts<br>Economic gain (closed economic system)<br>Legacy for children | Create variation<br>Long-lasting impact<br>Other stands already profitable<br>Leave something valuable behind | FO |
| **Organisational Incentives/Policy** | Innovations from Södra's management<br>Incentives (e.g. NOKÅS*)<br>Premium for nature conservation areas<br>Carrots or sticks" | Encourage sustainable forestry<br>Support variation<br>Compliance<br>Types of governance | FOA (Södra), Government |
| **Silvicultural Methods** | Pre-commercial thinning (PCT)<br>Thinning<br>Continuous Cover Forestry (CCF)<br>Increasing broadleaves<br>Nature conservation management | Create structural and species variation<br>Improve biodiversity<br>Forest health<br>Hunting | FO & Advisors |
| **Education & Engagement** | Education sessions (theme and/or forest days)<br>Trustworthy advisors providing good advice<br>Sharing knowledge and inspiration<br>Engaged/motivated FO | Increase knowledge<br>Build trust<br>Motivate behavioural change<br>Goals of FO | FOA, Advisor & FO |
| **Social** | Public opinion | Environmental, conservation goals<br>Social acceptance | FO, Society |

**NOKÅS: a grant for management regarding nature and cultural values (Skogsstyrelsen 2025)*

Possibilities for increased forest management variation were articulated across several dimensions according to the interviewed advisors. For example, it was emphasised that variation can be actively fostered through the motivations of forest owners. These motivations include personal goals and values, a sense of pride and responsibility, and aspirations to leave a valuable legacy. Such personal drivers are viewed as central to promoting diverse management decisions that extend beyond conventional timber production. Alongside owner-driven possibilities, incentives from their employer and policy measures (e.g., through innovative management practices or by providing financial incentives like the NOKÅS scheme) are identified as levers for encouraging diversification. These measures are seen as both carrots and sticks that align sustainable forestry practices with broader environmental and economic policy objectives. Moreover, advisors have noted that the adoption of specific silvicultural methods, such as pre-commercial thinning, thinning practices, or CCF, plays an essential role in creating structural and species heterogeneity, thereby increasing variation. Further highlights regarding the possibilities were education and engagement. Advisors reported that initiatives such as themed forest days, training sessions and trustworthy communication serve not only to increase forest owner knowledge but also to stimulate a behavioural shift towards more varied forestry. These educational strategies facilitate the transfer of not only technical expertise but also inspirational models of alternatives to rotational forest management. Finally, social factors, such as shifts in public opinion and the growing presence of conservation goals emerge as additional drivers of why variation as a concept is growing in popularity.

In table 5, the rightmost column of ‘Driver’ showcases the perspective of the categories. However, all perspectives are still originating from that of advisors, they were asked to describe their thoughts on Södra, the public or FO drivers.

One of the most commonly mentioned factors in relation to the practical implementation of varied forest management was the necessity for the forest owner to be highly engaged and genuinely interested. When discussing the provision of advice on management systems, several respondents noted that if a forest owner wishes to pursue something "special" or "unusual," it is typically up to the owner to initiate or advocate for it. Such approaches are rarely proposed by the advisor on their own initiative. Interviewee 1 talking bringing variation into their advice giving and how it is important that the member is motivated:

> When someone else brings it up with me, I get really happy, because I really enjoy talking about it. If I see that a member is genuinely engaged, where I believe it could actually work, and also has an understanding of what might not work, that it could simply fall apart, then I feel comfortable helping that member reach their goals. I wouldn’t want to recommend it to someone if I feel like, 'You’re not engaged, you don’t really care. You’ve read about it, but this isn’t going to go well because that commitment is missing

Pre-commercial thinning (PCT) was the most mentioned management action in discussions about how to introduce variation in forest stands. The interviewees frequently described this stage of forest development as foundational and the

point at which future stand structure and species composition can be most effectively influenced. Through precommercial thinning decisions about which species should be promoted and/or retained can be made. Interviewee 4 talking about how PCT impacts variation:

> Pre-commercial thinning is definitely one of those practices where you create variation based on your own judgement at an early stage. That's really when you choose the tree species composition and similar aspects. I think it's one of the measures that probably can have the greatest impact on creating variation.

Education, both for advisor and the members they support was a frequently cited as important when promoting variation and diversity in forestry practices. Primarily focused on continuous cover forestry (CCF) and biodiversity as subjects. Education could happen during themed days, or special occasions just for educating advisors or members, but there were also compendia and information pamphlets that could be shared. They also referred to colleagues working as specialists in areas of biodiversity and ecology as good support when they were unsure regarding things. Interviewee 9 talking about education and how knowledge is gained and shared:

> Södra has educational programs in continuous cover forestry for example, and then there has been a lot of work done, we even have specialists in that area. They come out and speak at forest field days, but also train us advisors. There have also been compendia and guidelines published about broadleaf forests and of management systems for example. I think Södra is really ahead in that regard.

Several emphasised that meaningful and lasting change among forest owners is more likely to result from positive incentives rather than from force or increased regulation. In their view, fostering trust and offering supportive guidance were seen as more effective strategies for influencing management decisions. There were also concerns that with a forceful approach from authorities is counterproductive. Interviewee 4 describing their thoughts:

> I believe much more in the carrot than the stick. I don't believe in using the stick when it comes from authorities, things like forcibly acquiring key biotopes and that sort of approach. It's going to be counterproductive. Many are now biotope-sanitising in advance, simply because they don't want anyone else deciding what happens on their property. I can understand them. I think it's completely wrong, but I still understand them. I almost only believe in the carrot, financial incentives, extra premiums for nature conservation and environmental considerations. There are government grants through NOKÅS and similar support schemes. That's also a kind of carrot.

However, there was also an expressed belief that more forceful measures, "management by fear", might be necessary to prompt action or compliance, more in line with the "stick" principle.

When it comes to what the advisors believed the main motivations for members they worked with, to work with variation and diversity in their forests – it often boiled down to a sense of pride. Esthetical aspects, generational aspects and the

sense of leaving something behind that has been well taken care of. The answer interviewee 5 gave when asked about what they though motivated the FO working with a diverse or varied forest management:

> I think, in many ways, it's about a sense of pride in managing the forest as neatly as possible. But also, it's an area where many people are active in their forests and takes care of their forests and that that sort of, in turn, creates a responsibility to keep things looking tidy and well-managed, because everyone else around is doing the same. So maybe there's a kind of peer pressure involved as well. And eventually, he plans to pass the forest on to one of his sons, so he wants to hand it over in the best possible condition, with as many options and opportunities as possible. So I think it's influenced a lot by external factors, but also by a personal pride in the craft, so to speak.

Profitability was also something that was brought up. Some advisors said that FOs were hoping to get a more continuous yield in an economic sense. Other said that FOs were getting enough money from other parts of their forest or weren't relying on their forest as a primary income, either way they were satisfied with less profitable management outcomes. Interviewee 7:

> Generally speaking, you could say that those who are financially well-off and don't rely on the forest for their livelihood may be more inclined to move toward CCF. But there are also small-scale forest owners who do a lot of the work themselves, and they can also be the type who want to move in that direction.

Knowledge and keeping yourself up to date were also something that was said to be important when promoting variation, especially regarding forest management methods. There was also talk about innovation from Södra's part and using refined planting material, especially regarding birch. Another aspect of knowledge was the knowledge and experience of the teams doing the practical forest management. Interviewee 6 said that more planning is needed when you deviate from traditional forestry, however, with a knowledgeable team it gets easier:

> Some cases I've been involved in detailed planning together with the landowner, and maybe the SFA has been there as well, because then they might have had counselling with them before. In those cases, it's been very detailed, and of course, if I had to do that for every harvest, it wouldn't be sustainable given the volume targets I'm expected to meet. However, it has reached a point where I feel very confident working with a ¨-ö.ööato do a CCF harvest on five hectares, you remember how we did it on that last site,' it kind of runs itself. They enjoy it, too. It's not like I have to go out and repeat the same walkthroughs we did the first few times. They learn. So I do believe that the more we work with this, the easier it gets and the less time I'll need to spend on it.

It appears that working with varied or diverse forest management is not a one size fits all. Advisors seem to have much to say about the subject and many thoughts on how to actively work with it.

### 5.2.3 Relationships Influencing Decisions

When asked to describe the typical forest owner the answer was generally something along the lines of "there is no typical forest owner". The same seem to

go for the typical relationship that an advisor has with said forest owner. The same fluidity applies to how they perceived themselves to influence decisions forest owners made with the relationships they formed. Advisors liked to say that they were there for the forest owner to bounce ideas off, that they often had a very personal relationship with their member and that a large part of their work was to actively stay in contact with their members, often via the telephone.

This a quote from interviewee 8 describing what they thought were the typical relationship that they had with the members they work with:

> The typical relationship, I'd say there's at least one contact per year, maybe even an annual meeting where we meet and look at their forest. Then we usually see each other at some of the autumn or annual meetings. Sometimes you stop by the farmyard and have a casual chat. But I'd say I have a very good relationship with my members. It's fun, it's enjoyable, we talk about all sorts of things, but also a bit more professionally about the forest itself.

Trust was also an integral part in the relationships formed between advisor and member. They also said that it was important to be there for their members, to take their side. Interviewee 3, describing the importance of integrity and standing by the members:

> That's something I hold on to really firmly, I don't want to 'trick' people into harvesting just because we need timber. No, I'd much rather invest in building long-term trust and be honest in my advice. That's something I strongly stand by.

Trust was also something that makes the job easier to do. In connection to more varied forest management, often meaning that a new type of management is being done, the advisors said that it was much easier to do when member trusted them. Interviewee 5 answering a question about the importance of trust in relation to a member's inclination of adopting alternative management practices:

> I definitely believe that. I think that if you're confident in what you're saying and come across as trustworthy, then people are generally more willing to go a bit beyond how they've managed their forest in the past. But if you believe in these kinds of approaches and want to see more variation in forest management, then you'll probably have to pick your battles. Because there are those forest farmers I mentioned earlier, who just want to go out and point, 'this is how I'm going to do it.' I think it would be hard to change their opinion. But someone who's curious about their forest and open to trying new methods, that's where all the opportunities lie [for alternative management practices].

There were also some strategic viewpoints advisors admitted to taking in their approach to advice. In forestry there are certain stigma around words and their meaning, some advisors said to take this into account when working with members. This suggest that there are implications for decision-making with what the advisor is not saying. Interviewee 2, explaining how they actively avoid the term 'variation' in their contact with certain members:

> I actively try not to use the word 'variation.' I also actively avoid using the term 'nature conservation felling' even if that might be what we're actually doing. As a result, what we've done in some places could very well be considered nature conservation felling. But the thing is, we can't always label it as such, unfortunately many people just aren't receptive there yet.

In the same vein, Interviewee 1 was explaining how they approached the topic of variation in the advice they gave. The following quotes implies that certain themes of advice may be withheld if an advisor perceive the forest owner as unmotivated. In this way, variation becomes conditional and only offered when the advisors see a chance of success.

> I will probably not go outside the box unless a member leads me there. I will never suggest CCF if not a member tells me to.

Later in the same interview, they elaborated on their reasoning:

> If you're not engaged and if you do not care. You read about this [variation in FM]. But it is not going to go well because your commitment is lacking. Then I would not consider diversifying the advice I give. Then you probably need to try and find another way forward.

There was also the advisor's relationship to their self in connection with variation. Generally, variation was seen as a complex subject, many advisors enjoyed discussing it and thought the subject of the interviews was interesting and gave food for thought. A majority also thought that working with variation often meant that you must use your own knowledge more, find solutions and other ways of planning. There was also an agreement on the notion that even if working with variation made the job itself harder or more time-consuming, it was also more enjoyable.

## 5.3 Advisors and the Forestry Context

Advisors were asked to reflect on their role within the broader context of forestry and forest policy. They were also asked whether they felt their position, as advisors, was acknowledged in the wider forestry debate. Overall, the consensus was that forestry is a polarised topic. The advisors expressed that they must navigate numerous, often conflicting, interests and that they are frequently portrayed in a negative light by those outside the forestry industry. Below, interviewee 5 reflects on the issue of polarisation and describes their experience of disconnect:

> I often think it's horror stories that are highlighted, and it's that one might be a bit demonised and essentially painted in a bad light, by activists who want us not to use the forest at all, for example. Or that we should use some kind of CCF method and I often feel that there's a kind of imbalance in that we who have educated ourselves, we've learned in a certain way and we believe we're advocating for sustainable forestry. One that actually provides environmental benefits by producing timber and allowing us to replace fossil-based materials with either pulp or wood and lumber. So I think that's

> where it gets tough, because we mostly get criticised, and the good things we actually do don't get through.

The speaker underscores the tension that arises in connection with their work connected to separate views of forest management. This imbalance affects the advisor on a personal level.

There were also reflections on the multitude of targets and objectives that various individuals and organisations impose on the forest. Interviewee 7 described how many of the stakeholders connected to forestry each have their own primary interest. All these elements exist within the forest, and according to Interviewee 7, it is their responsibility to integrate these diverse perspectives:

> All these people who really believe in something, it's like a religion to them. It becomes the whole truth. It can be really difficult at times to have a normal, reasonable conversation with them. They can never take a broader view. Their opinions are always right, they believe in it so strongly. And maybe I'm the same, when push comes to shove, I won't say I'm not. But I can feel that it gets that way. Wolves? Then that's the only thing that matters. Then I meet someone else who's all about flowers and species. Then that's all that matters. Then I meet another one, the archaeologist who wants to protect the ancient monument, then that's the only focus. But I have to put the whole picture together. Everything exists in the forest. I can't just focus on the stone cairn or the rare orchid. It's a combination of everything, with the landowner in the middle, wanting to get something done

This quote highlights how forest management can be influenced by the public and societal conflicts. The advisor describes encountering stakeholders with strong, singular agendas where, in contrast, the advisor sees their role as integrating these fragmented perspectives in their work. Advisors are then not only navigating practical forestry decisions but are also mediating between diverse and often conflicting expectations. The process of advice is then more than just practical management, reflecting the complexities between forestry, politics and values.

There was also a consensus that the forest industry's portrayal in media focused mainly on negatives and mistakes and failed to report on positive changes that have been made. Interviewee 4 sharing their thoughts:

> Media often portrays it as black or white. There are definitely situations where Södra and other companies have behaved really badly when it comes to how forests are harvested. But I think it's wrong to lump everyone together when mistakes happen, or even when there are obvious mistakes or errors. In general, I think the industry has improved significantly over the last 10–20 years. There's been active work to reduce soil damage from machinery, to create variation, preserve dead wood, and maintain buffer zones. Those things are second nature today in a way they weren't 15 years ago.

There is a discrepancy between medial narratives and the realities of advisors, suggesting that media overly simplifies and misrepresents current forestry practices. While acknowledging that mistakes can happen, they point out the

improvements that have been made over time, further suggesting that variation is more embedded as a standard practice even if that is unrecognised by the public.

Important in the forestry context is how the policy *freedom under responsibility* is reflected in practice. The following quote, by interviewee 8, indicates how this freedom plays out in practice:

> I feel like it all comes back to the fact that it's a raw material. Are we going to use the raw material or not? That's what it all comes down to, that we act responsibly when we extract our raw material. And I believe that we one hundred percent do. With the requirements of certification, with the landowner's additional requests, and my own input based on what I consider to be appropriate spots to leave trees, beyond what's already been agreed upon with the landowner and so on. And how I shape the landscape, of course, there's a focus on production, but it balances out. But as I said, in the end, if we want the raw material, then we have to harvest. That's what it comes down to. If we don't, then we'll have to find another way. but that's beyond my area of expertise.

While the advisor expresses a sense of responsibility regarding ecological considerations, these are framed within certain limits and thus defined by what the current system allows and not necessarily by broader ambitions, a limiting factor of freedom. There is definite awareness of larger structural questions but also a clear boundary of where their responsibility as advisors end.

# 6. Discussion

## 6.1 Implications for Variation

### 6.1.1 Defining Variation

The study shows that variation in forest management is understood by advisors primarily in practical terms rather than as a policy objective. It was described as something embedded in the practice of forestry and silviculture, such as site adaptation, using a mix of species or applying alternate management practices. The recurring theme of private ownership variation is an interesting insight to discuss, that variation is an inherent by-product of ownership structure. In other words, decentralised ownership is a driver of forest diversity, not only because of differences in physical land but because of differences in people. Some owners may remove biodiversity or manage through clear-cuts out of fear or due to tensions in their community while others choose to leave their forest unmanaged. The differences in mentality and will of forest owners then create diversity on a landscape scale. These insights are contrary to the findings of Andersson & Keskitalo (2021), that forest owner characteristics doesn't create a big difference in management outcomes. Implying that even if the goals of forest owners can be widely diverse it's not an automatic connection to variations of forest management.

Returning to the definition of the word variation, a difference or change, creates questions. What is it different to, what is it a change from? The word is conditional on what it is or isn't. Since advisors defined variation as differences in values, motivations and objectives among forest owners it is interpreted as a form of social diversity. While advisors may see the landscape as varied due to the heterogeneity of owners, the SFA defines variation in ecological terms, such as the presence of dead wood and old-growth forests (Skogsstyrelsen 2023a). This points to a discrepancy in how variation is understood, depending on one's perspective. Since advisors in partaking in this study frames it as both a value driven (private ownership etc.) and a practical (management alternatives, site adaptation etc.), complicates the process of singularly defining variation. Thereby also presenting challenges when translating the term into policy directives. While no definition inherently is wrong, variation is simply a difference or a change, the ambiguity surrounding variation is not doing anyone any favours. However, the aim of this study was never to uncover a universal definition of variation, it was about understanding how forest advisors interpret the term.

### 6.1.2 Obstacles and Possibilities

At first glance, asking about obstacles and possibilities for varied forest management may seem straightforward. Advisors were directly asked to identify what they perceived as obstacles to variation. These responses are presented in Chapter 5.2.1. However, beyond these answers, further obstacles and possibilities also emerged through broader discussions about relationships, communication and how advisors understand and utilise their role. Meaning that there in one hand are

the possibilities and obstacles that were defined by the advisor when outright asked. In the other there are the ones visible through analysis, primarily highlighting implicit barriers that might not be consciously acknowledged.

What then constitutes an obstacle or possibilities for variation, most advisors viewed variation positively and considered it worth exploring further, yet variation remains underutilised in practise. If practical possibilities for implementing variation exists, why are they then so rarely applied, particularly given that Swedish forestry continues to be dominated by clear cuts and rotational forestry. The limited use of these opportunities points toward the obstacles of variation. Could barriers be so embedded or structural that they outweigh the perceived possibilities of variation? While advisors named obstacles such as lack of owner interest, economic risk or gaps in knowledge, there is also the point of what advisors didn't say. Silence around certain issues may reflect matters that are difficult to articulate, yet still influence the ability to promote variation in forestry.

Advisors indicated that their sense of enjoyment or satisfaction at work often stemmed from a job well done, perhaps resulting in positive feedback from a member. Many described variation-based approaches as more interesting and rewarding, allowing them to apply a broader range of skills. However, the practices themselves often had to be sparked by forest owners' interest, rather than an internal push from the advisor. Several interviewees noted that they would not suggest alternative management approaches unless the forest owner raised the topic first, similar to the findings of Matilainen et al (2023). This suggests that decisions in forest management defaults to traditional management approaches and becomes an obstacle for variation.

Given that forest owners increasingly need encouragement and help when it comes to management practices (Kronholm 2016). A loop exists, where motivation must be shared to generate variational outcomes. At the same time, timber procurement targets and organisational structures could limit how much time or priority advisors can allocate to biodiversity-related topics (Häyrinen et al. 2015). Yet, contrary to earlier concerns (e.g. Kronholm 2016), most advisors still saw their role as service-oriented rather than profit-driven, suggesting that structural limitations and not unwillingness, constrain advisory engagement with variation. On the other hand, the advisor's dedication to their members suggests that financial considerations of the FOA are not the primary structural barrier of employing variation.

A take on structural barriers could then be the lack of in place strategies that support practices outside of conventional framework. While advisors themselves generally felt well equipped with technical and theoretical knowledge, its effectiveness depended on how it was shared and received. Underscoring findings in previous research (Appelstrand 2007; Hokajärvi et al. 2011). Lodin & Brukas (2021) found that a lacking knowledge from the forest owner, perhaps not understanding the risks of a management practice, can cause a disruption in the perceived outcomes between advisor and forest owner. This could then potentially create distrust in that relationship leading to obstacles of a personal kind.

Suggesting then that obstacles primarily are structural won't paint the entire picture. Even with structural obstacles, the practical translations of these trickle down into the advice given on forest management, which is a professional yet personal process. Like the definition of variation, obstacles and possibilities for variation are dimensional and related to perspective. There are the identified obstacles and possibilities discussed by advisors and the ones that are found through implications. In the theoretical framework, five interrelated factors are identified as central to advisory influence: trust, motivation, knowledge & information, values and communication. There is both practiced and untapped potential in the advisor's ability to promote variation in forest management, this potential is conditioned by the forest advisor.

## 6.2 Advice and Decisions

Forest advisors play an influential role in shaping the decisions of forest owners, particularly when it comes to identifying management needs and suggesting appropriate actions. As Pynnönen et al. (2018) argue that service providers in forestry play a key role in promoting alternative management approaches. Advisors act as facilitators in information gathering, but they also influence how needs are framed and the alternatives that are considered. The rising authority of managers, researched by Kronholm & Wästerlund (2013), consequently suggest that the decision process of forest owners is steered by advisors. However, this influence is far from absolute. Advisors see themselves as strongly aligned with the interests of their members. Although FOAs like Södra do not officially impose timber procurement targets, advisors still sensed an implicit pressure to prioritise production goals. This creates a possibility for tension in the advisory process where a misalignment of goals between FOA and member would impact decision-making.

Advisors can initiate contact with forest owners to suggest actions based on forest condition, or they may enter the decision process at a later stage when the owner seeks input. In both cases, their influence is mediated by factors such as trust, credibility and communication style. As Hujala et al. (2009) note, forest owners who are classified as "trusting realisers" are more likely to follow professional advice. However not all forest owners would qualify in this group. Advisors are operating within a forestry model that is changing. A new type of forest owner has become more common (Häyrinen et al., 2015; Mattila & Roos, 2014). This group may be more open to varied management but also less familiar with practical forestry and while a lack of knowledge can lead to passivity, it may also open space for advisors to act as guides toward alternative practices.

The new type of forest owners that relate to changing ideals and with decreasing reliance on their forests are often said not to fit in FAO's current service provisions (Häyrinen et al 2015; Kronholm 2016; Mattila & Roos 2014). This type of owner is of interest since they were identified by interviewees as members leaning away from traditional practices. One could argue that a lack of knowledge leads to passiveness, however as Kronholm (2016) found; FAOs are tailoring their services towards this demographic. This could then create a new group of

motivated owners, with the resources and ideals that can cater for variation. The decisions this group makes would then not depend on economic interests, debts or similar issues that can be brought up as issues for the more traditional type of forest owner.

Having to decide between economics and biodiversity is brought up in discussions around alternative management practices. The outcome of these decisions can be related to different types of forest owners and what goals and values they possess (Inglehart 2000; Nordlund & Westin 2010), tangible outcomes of these values can be reflected in harvesting levels (Kuuluvainen et al 2014). FOAs where originally established to increase the financial return of their members (Berlin et al. 2006). However, the modern structure of FOAs such as Södra, which operates both as a cooperative and a supplier to its own forest industries (Södra n.d.a). Introduces tensions between member-driven, governance and industrial supply demands. While the democratic nature of FOAs implies that diverse member needs, including preferences for alternative forest management practices, should be acknowledged and incorporated it is not always the case. The result is an internal conflict of interest, where the organisation's economic objectives may take precedence over the varied goals of its increasingly heterogeneous membership.

According to Jussila et al. (2012), internal divisions in cooperative structures can undermine shared motivation and decision-making capacity. Suggesting that the influence advisors have on decisions depend on how well everyone gets along. However, importantly the interviewed advisors emphasised that the final decision rests with the forest owner and not with the advisor. The approach to decision-making adopted in this research can also be viewed from the point of failure. Even when advice is actively offered, it is no guarantee of action. Passive instances, where contributions to variation occur through inaction still shape forest outcomes. A way of looking at this is that advisors may shape the menu of choices, but they cannot dictate the selection. The menu may offer one choice or several, but the order must be placed by the forest owner, meaning that advisors sit with an instrument of power, power that has the potential to frame advice.

### 6.2.1 Factors of Influence

The theoretical framework presents factors that influence advice. These factors are in their own right extensively researched (see chapter 3.2). Advisors described that without trust, advice is unlikely to be acted upon even if it's technically sound. Advisors emphasised that trust is built through the relationships that form with their members. Advisors needed to trust that forest owners were open and engaged, while owners needed to trust that advisors had their best interests at heart. This is supported by Guillén et al. 2015, who link declining trust to conflicting organisational goals, and Hokajärvi et al. (2011), who identify distrust as a barrier in collaborative planning.

The values held by advisors play a role in shaping the outlook on variation. Stemming from education, work experience and personal experience, these values have a potential of clashing or aligning with both members and public opinion. Potentially this could then influence what advice is given but also the personal

relationship between member and advisor and ultimately affect the forest management outcome, agreeing with previous research on value-influence in forest management (Wittel et al. 2002 see Matilainen et al. 2023). There are also Södras values of being a family oriented, down-to-earth, engaged and forward-thinking organisation (Södra n.d.c). As values matter whether a member wants to move away or towards management practices, the values of the organisation that the member belongs to matter. Differences in values can also lead to disagreement. For advisors, disagreement was most aimed at societal influences rather than against Södra or members therein.

Values also came up indirectly in conversation about polarisation between different actors, similarly to what Kronholm (2016) highlights. Interviewees spoke about being unfairly criticised in public forums about using unsustainable practices when they have been taught the opposite. These feelings can subsequently influence how motivated an advisor is in their work.

Advisors noted that more nuanced, participatory forms of communication, such as walking the forest together with its owner, often were enjoyable and effective, yet almost always more time-consuming. The consensus being that those forms of communication would be unsustainable if they were to be carried out with all members, confirming earlier findings that the preferred way is not without a backside (Kronholm & Wästerlund 2013: Toman et al. 2006).

When factors align the potential for ‘good’ decision-making increases and when factors faulter, outcomes differ from what was intended at the start of the process. However, this doesn’t automatically equal to ‘bad’ decision-making, additionally, within the context of variation it could instead be a contribution. Advisory influence is not linear or guaranteed, as underscored by the interaction of the factors in their contextual placement.

## 6.3 Advice in a Wider Context

According to directives from the SFA, advisors are among the actors expected to implement policy goals through the principle of sectoral responsibility (Skogsstyrelsen 2023). Interestingly, most interviewees in this study had not explicitly reflected on their role as policy implementers, yet often expressed agreement when presented with the notion. Kronholm (2016) describes how FOAs are increasingly involved in political advocacy, particularly in defending members’ property rights against growing external pressures for stricter forest management regulations. Forest advisors are not operating in a vacuum, their role is part of a broader system of forest governance, as Arnould (2007) writes that services such as forest advisory work always exist within a social and cultural context and must be analysed accordingly.

The heart of Sweden’s policy model, “freedom under responsibility”, allows for flexibility yet shifts responsibility for reconciling these values onto individual actors. When it came to methods of governance, interviewees seemed to prefer “carrots” over “sticks”. Forest owners are then more receptive to trust-based

advice than regulatory enforcement. Enander (2007) wrote that forest governance in Sweden is deeply rooted in historical ideals, which freedom under responsibility is a part of. In a forestry context characterised by polarisation, using a strict enforcement to shape management practices may not be all that constructive. However, relying solely on incentives and voluntary measures can fall short in driving meaningful change. Sergent et al. (2018) writes that even in decentralised governance models state-centred and industry-aligned actors often shape what knowledge is considered legitimate. Advisors are trained, evaluated and resourced within this system, which tends to prioritise timber production over ecological variation. The Forestry Act says to equally value economic and ecologic goals, yet a skewed outlook of these values would impact the evaluation of them.

The interviewed advisors described the growing complexity of their role in light of the many, often conflicting, interests present in today's forestry landscape. Advisors are often expected to mediate tensions and manage not only forest-related decisions but also the frustrations and pressures of various actors, ending up with a plate full of everyone's problem. Another recurring theme was the ambiguity surrounding forest objectives, similarly to the aforementioned complexities, advisors felt that it has increasingly become their responsibility to reconcile these multiple goals at the operational level. Several interviewees also expressed that the broader public does not fully recognise the improvements that have been made within the sector. Practices such as leaving dead wood, care not to create driving damage and considering biodiversity are now more embedded in standard routines than they were before. This suggests that change is occurring, albeit incrementally and often invisibly to those outside the industry.

The wider forestry context extends well beyond the forest industry itself. Forest advisors interact with this broader landscape on a daily basis. Their role can often be demanding, both in terms of workload and emotional strain. The tensions in forestry directly affect advisors (Carvalho-Ribeiro et al. 2010; Curtis et al. 2023), forcing reflection about the implications of one's work.

When discussing change, as variation in forest management, tensions are to be expected. Many advisors demonstrate a strong personal commitment to their work, as reflected in their engagement during interviews. This passion is not unique to forestry professionals; it is shared by members of environmental organisations and recreational users. In such a context, it is perhaps unsurprising that forestry provokes strong emotions and polarising debate. However, from the interviews, the impression was not that advisors were especially radical or at all wanted polarisation. Even though instances of the opposite did happen, were advisors admitted to consciously start debate within their family for the sake of disagreeing. When discussing on a larger scale their tone was generally measured, reflecting a desire to balance interests rather than escalate conflicts. Perhaps indicating that the role of advice within the wider forestry context may be misunderstood or oversimplified. Advisors distinguished between constructive critique, which they acknowledged as important, and unproductive or emotionally charged opposition, which they found more difficult to engage with. These

findings highlight the need for a more nuanced understanding of the advisory role and the need for cooperation within the context across stakeholder groups.

### 6.3.1 A Second Take on Obstacles

Returning to the earlier discussion on obstacles regarding this research, using the term obstacles might be too simplistic or vague as a term to account for the range of challenges that affect variation in forest management. In essence, nearly every point discussed can be seen as an obstacle, or a possibility, depending on perspective. A forestry student writing a thesis will have one outlook, perhaps different than an advisor working in the field.

Since this study focuses on advisors and the advisory process, it is most logical to examine obstacles from the perspective of the advisor. However, when advisory services are placed within the broader forestry context, additional types of obstacles emerge, whether they be structural, institutional or political. What initially appeared to be a straightforward concept has proven to be far more complex. The idea of an *obstacle* encompasses a wide range of factors, many of which are difficult to define or isolate, yet collectively shape the conditions under which variation in forest management is considered and implemented.

Recognising how varied and perspective-dependent these obstacles are may help explain why variation, although widely supported in principle, remains difficult to implement in practice. This highlights a need for future studies to look more closely at how different actors interpret and negotiate obstacles to change within forestry, to draw more grounded conclusions and in extension support more effective policy translation.

# 7. Conclusion

This thesis set out to explore how forest advisors influence the uptake of variation in forest management, with particular attention to how advice is shaped, delivered and received within Sweden's forest governance context. Drawing on interviews with advisors and grounded in a conceptual framework built around decision-making and five factors of influence: trust, values, motivation, knowledge, and communication, the study reveals that advisory work is a complex and relational practice.

At the advisor–owner level, findings show that trust is foundational to any meaningful advisory relationship. Without it, even well-intended or ecologically grounded advice struggles to take root. Advisors' values, shaped through education and organizational culture, affect how they interpret and prioritise variation, sometimes reinforcing traditional practices and sometimes opening space for new approaches. Motivation, both personal and organizational, influences how diverse forest management is pursued, while knowledge and communication determine how well advice is translated into practical management. Yet these interpersonal dynamics cannot be understood in isolation. The analysis shows that advisory influence is constrained by structural and institutional factors such as the priorities of forest owner associations and the enforcement and clarity of policy goals like variation. Obstacles and possibilities are thereby more nuanced subjects then first expected.

The decentralised nature of forest ownership in Sweden introduces diversity in both forest conditions and owner objectives which in turn can foster variation in management. However, this variation is not guaranteed and depends to an extent on how advisory relationships unfold. As mentioned in the discussion, advisors help shape the 'menu' of forest management options, but the final choice rests with the owner. A reality that reflects both the strength and limitation of advisory influence in a soft policy system. The interaction of advice in a wider forestry context is both a professional and a personal one.

In conclusion, advisory influence is not a linear process of knowledge transfer but nuanced and context-dependent, shaped by people, relationships and structural limitations and possibilities. As forest policy increasingly demands multifunctional outcomes, understanding and supporting the advisory role is important for ensuring that goals of ecological variation and economic sustainability, along with the democratic participation of FOAs, can be meaningfully put into practice

For additional future research, further exploration of advisor's roles in other geographies as well as in other FOAs is suggested to offer more insights into how advice can support varied forest management in Sweden.

# References


Andersson, E. & Keskitalo, E.C.H. (2019). Service logics and strategies of Swedish forestry in the structural shifts of forest ownership: challenging the "old" and shaping the "new." Scandinavian journal of forest research, 34 (6), 508–520. https://doi.org/10.1080/02827581.2019.1604990

Andersson, E., Keskitalo, E.C.H. & Westin, K. (2020). Managing place and distance: Restructuring sales and work relations to meet urbanisation-related challenges in Swedish forestry. Forest policy and economics, 118. https://doi.org/10.1016/j.forpol.2020.102267

Andersson, E. & Keskitalo, E.C.H. (2021). Constructing forest owner identities and governing decisions and relationships: the owner as distant consumer in Swedish forestry. Journal of environmental planning and management, 64 (11), 1963–1984. https://doi.org/10.1080/09640568.2020.1852395

André, K., Baird, J., Gerger Swartling, Å., Vulturius, G. & Plummer, R. (2017). Analysis of Swedish Forest Owners' Information and Knowledge-Sharing Networks for Decision-Making: Insights for Climate Change Communication and Adaptation. Environmental management (New York), 59 (6), 885–897. https://doi.org/10.1007/s00267-017-0844-1

Appelstrand, M. (2007). Miljömålet i skogsbruket: styrning och frivillighet. Department of Sociology of Law, Lund University.

Arnould, E. J. (2007) Service-dominant logic and consumer culture theory: natural allies in an emerging paradigm. Consumer culture theory. Emerald Group Publ Ltd 11:57-76 https://doi.org/10.1016/S0885-2111(06)11025-X

Berlin, C., Lidestav, G. & Holm, S. (2006). Values placed on forest property benefits by Swedish NIPF owners: Differences between members in forest owner associations and non-members. *Small-scale forestry*, 5 (1), 83–96. https://doi.org/10.1007/s11842-006-0005-5

Bryman, A. (2016) Samhällsvetenskapliga metoder. 3 uppl., Liber.

Cambridge Dictionary (n.d.) *Variation*. https://dictionary.cambridge.org/dictionary/english/variation [2025-06-08]

Carvalho-Ribeiro, S.M., Lovett, A. & O'Riordan, T. (2010). Multifunctional forest management in Northern Portugal: Moving from scenarios to governance for sustainable development. Land use policy, 27 (4), 1111–1122. https://doi.org/10.1016/j.landusepol.2010.02.008

Chave, J. & Bascompte, J. (2013). The problem of pattern and scale in ecology: what have we learned in 20 years? *Ecology letters*, 16 (s1), 4–16. https://doi.org/10.1111/ele.12048

Curtis, K, Guillén, L. A. & Brukas, V. (2023). Creating the Landscape, One Stand at a Time: The Dual Roles of Timber Buyers in the Nested Domains of Swedish

Forestry. Forest Policy and Economics 147:102884. Doi: 10.1016/j.forpol.2022.102884.

Dahl, C. (2024) Greenpeace kommenterar regeringens nya skogsutredning: ”Nu börjar slaget om skogen på allvar”. Greenpeace, 8th February 2024. https://www.greenpeace.org/sweden/pressmeddelanden/skog/greenpeace-kommenterar-regeringens-nya-skogsutredning-nu-borjar-slaget-om-skogen-pa-allvar/ [2024-11-11]

Echeverri, P (2006) Bortom ideologi och ekonomi: Lantbrukskooperation, medlemsinflytande och strategiutveckling i förändring. 2006:19, Karlstad University. urn:nbn:se:kau:diva-151

EC (2021) New EU Forest Strategy for 2030. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions', COM (2021)572 Final; European Commission: Brussels, Belgium. https://eur-lex.europa.eu/resource.html?uri=cellar:0d918e07-e610- 11eb-a1a5-01aa75ed71a1.0001.02/DOC_1&format=PDF. [2025-05-19]

Enander, K.-G. (2007). Skogsbruk på samhällets villkor: skogsskötsel och skogspolitik under 150 år. Institutionen för skogens ekologi och skötsel, Sveriges lantbruksuniversitet.

FAO. (2024) The State of the World's Forests 2024: Forest-sector innovations towards a more sustainable future. Rome. https://doi.org/10.4060/cd1211en

Fischer, A.P., Bliss, J., Ingemarson, F., Lidestav, G. & Lönnstedt, L. (2010). From the small woodland problem to ecosocial systems: the evolution of social research on small-scale forestry in Sweden and the USA. Scandinavian journal of forest research, 25 (4), 390–398. https://doi.org/10.1080/02827581.2010.498386

Guillén, L.A., Wallin, I. & Brukas, V. (2015). Social capital in small-scale forestry: A local case study in Southern Sweden. *Forest policy and economics*, 53, 21–28. https://doi.org/10.1016/j.forpol.2014.12.006

Hallsten, K. Brenden, G. (2025). *Skogsnäringens betydelse för välfärden.* Skogsindustrierna & Industriarbetsgivarna. https://www.skogsindustrierna.se/siteassets/bilder-och-dokument/rapporter/valfard/skogsnaringens-betydelse-for-valfarden-2025.pdf [2025-05-23]

Hokajärvi, R., Hujala, T., Leskinen, L.A. & Tikkanen, J. (2009). Effectiveness of sermon policy instruments : forest management planning practices applying the activity theory approach. *Silva fennica (Helsinki, Finland : 1967)*, 43 (5), 889–906. https://doi.org/10.14214/sf.178

Hokajärvi, R., Hujala, T. & Tikkanen, J. (2011). Change in forest planner's advisory role. *Scandinavian journal of forest research*, 26 (5), 466–476. https://doi.org/10.1080/02827581.2011.579996

Howlett, M., Rayner, J. & Tollefson, C. (2009). From government to governance in forest planning? Lessons from the case of the British Columbia Great Bear Rainforest

initiative. Forest policy and economics, 11 (5), 383–391. https://doi.org/10.1016/j.forpol.2009.01.003

Hujala, T. & Tikkanen, J. (2008). Boosters of and barriers to smooth communication in the family forest owners' decision making. *Scandinavian journal of forest research*, 23 (5), 466–477. https://doi.org/10.1080/02827580802334209

Hujala, T., Tikkanen, J., Hänninen, H. & Virkkula, O. (2009). Family forest owners' perception of decision support. Scandinavian journal of forest research, 24 (5), 448–460. https://doi.org/10.1080/02827580903140679

Håkansson, M. (2000). Skogsencyklopedin : [8400 artiklar och ordförklaringar]. Sveriges skogsvårdsförbund.

Häger, B. (2001). *Intervjuteknik*. 1 uppl., Liber

Häyrinen, L., Mattila, O., Berghäll, S. & Toppinen, A. (2015). Forest Owners' Socio-demographic Characteristics as Predictors of Customer Value: Evidence from Finland. Small-scale forestry, 14 (1), 19–37. https://doi.org/10.1007/s11842-014-9271-9

Inglehart, R. (2000). Globalization and postmodern values. The Washington quarterly, 23 (1), 215–228. https://doi.org/10.1162/016366000560665

IPBES (2019). *Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*. E. S. Brondizio, J. Settele, S. Díaz, and H. T. Ngo (editors). IPBES secretariat, Bonn, Germany. 1148 pages. https://doi.org/10.5281/zenodo.3831673

IPCC (2022) Climate Change 2022: Impacts, Adaptation and Vulnerability, Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, H-O, Pörtner, DC, Roberts, M, Tignor, ES, Poloczanska, K Mintenbeck, A, Alegría, M, Craig, S, Langsdorf, S, Löschke, V, Möller, Okem, A & Rama, B (eds.), Cambridge University Press, Cambridge, UK and New York, USA, p. 3056, https://doi:10.1017/9781009325844. [2025-05-19]

Jussila, I., Goel, S. (2006) Cooperation and Conflict: Four Perspectives on Governance of Co-Operatives. [In Proceedings of the 13th Conference of the International Association for the Economics of Participation, 13–15 July, Mondragon University, Mondragon, Spain].

Jussila, I., Goel, A., Tuominen, P. (2012) Governance of Co-operative Organizations: A Social Exchange Perspective. Business and Management Research. 1(2), 14-15. DOI:10.5430/bmr.v1n2p14

Karlsson, S. Andersson, E. Roberge, J.M. Österdahl, S. (2022). *Levande skogar: Fördjupad utvärdering 2023.*(Rapport 2022/12). Skogsstyrelsen. https://www.skogsstyrelsen.se/globalassets/om-oss/rapporter/rapporter-20222021202020192018/rapport-2022-12-levande-skogar---fordjupad-utvardering-2023.pdf [2025-05-23]

Kittredge, D.B. (2003). Private Forestland Owners in Sweden: Large-Scale Cooperation in Action. *Journal of forestry*, 101 (2), 41–46. https://doi.org/10.1093/jof/101.2.41

Kittredge, D.B., Rickenbach, M.G., Knoot, T.G., Snellings, E. & Erazo, A. (2013). It's the Network: How Personal Connections Shape Decisions about Private Forest Use. Northern Journal of Applied Forestry, 30 (2), 67–74. https://doi.org/10.5849/njaf.11-004

Kronholm, T. (2016). How are Swedish Forest Owners' Associations Adapting to the Needs of Current and Future Members and Their Organizations? *Small-scale forestry*, 15 (4), 413–432. https://doi.org/10.1007/s11842-016-9330-5

Kronholm, T. & Wästerlund, D.S. (2013). District Council Members and the Importance of Member Involvement in Organization Renewal Processes in Swedish Forest Owners' Associations. *Forests*, 4 (2), 404–432. https://doi.org/10.3390/f4020404

Krott, M (2005). Forest policy analysis. Springer.

Kuuluvainen, J., Karppinen, H., Hänninen, H. & Uusivuori, J. (2014). Effects of gender and length of land tenure on timber supply in Finland. *Journal of forest economics*, 20 (4), 363–379. https://doi.org/10.1016/j.jfe.2014.10.002

Kvale, S. (1997). Den kvalitativa forskningsintervjun. Lund: Studentlitteratur.

Lawrence, A., Deuffic, P., Hujala, T., Nichiforel, L., Feliciano, D., Jodlowski, K., Lind, T., Marchal, D., Talkkari, A., Teder, M., Vilkriste, L. & Wilhelmsson, E. (2020). Extension, advice and knowledge systems for private forestry: Understanding diversity and change across Europe. *Land use policy*, 94, 104522-. https://doi.org/10.1016/j.landusepol.2020.104522

Lindheim, T. (2022). Participant Validation: A Strategy to Strengthen the Trustworthiness of Your Study and Address Ethical Concerns. In: Espedal, G., Jelstad Løvaas, B., Sirris, S., Wæraas, A. (eds) Researching Values. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-90769-3_13

Lodin, I. & Brukas, V. (2021). Ideal vs real forest management: Challenges in promoting production-oriented silvicultural ideals among small-scale forest owners in southern Sweden. *Land use policy*, 100. https://doi.org/10.1016/j.landusepol.2020.104931

Matilainen, A., Andersson, E., Lähdesmaki, M., Lidestav, G & Kurki, S (2023) Services for What and for Whom? A Literature Review of Private Forest Owner's Decision-Making in Relation to Forest-Based Services. Small-scale forestry, 22 (3), 511-535. https:/doi.org/10.1007/s11842-023-09541-3

Mattila, O. & Roos, A. (2014). Service logics of providers in the forestry services sector: Evidence from Finland and Sweden. *Forest policy and economics*, 43, 10–17. https://doi.org/10.1016/j.forpol.2014.03.003

Naturvårdsverket. (2020). *Landskapsplanering av skogen – för biologisk mångfald och ett variationsrikt skogsbruk.* Report 6909. Stockholm: Naturvårdsverket. Available at: https://www.naturvardsverket.se/en/publications/6900/978-91-620-6909-4/ [2025-05-19].

Nordlund, A., Westin, K. (2010) Forest Values and Forest Management Attitudes Among Private Forest Owners in Sweden. *Forests.* 2(1). 30-50 https://doi.org/10.3390/f2010030

Näringsdepartementet (2018) Strategi för Sveriges nationella skogsprogram. (Bilaga till protokoll IV 5 vid regeringssammanträde den 17 maj 2018, N2018/03142/SK. Näringsdepartementet. https://www.regeringen.se/contentassets/34c919715e0b4285a5da5b51f38b28af/20180524_hela.pdf [2025-05-23]

Pülzl, H., Kleinschmit, D. & Arts, B. (2014). Bioeconomy – an emerging meta-discourse affecting forest discourses? Scandinavian journal of forest research, 29 (4), 386–393. https://doi.org/10.1080/02827581.2014.920044

Pynnönen, S., Paloniemi, R. & Hujala, T. (2018). Recognizing the Interest of Forest Owners to Combine Nature-Oriented and Economic Uses of Forests. Small-scale forestry, 17 (4), 443–470. https://doi.org/10.1007/s11842-018-9397-2

Regeringskansliet (2024) En robust skogspolitik som ser skogen som en resurs (Dir. 2024:16) Regeringskansliet. https://www.regeringen.se/contentassets/9c9eaef429c74226ab48187b2960a7df/dir.-202416-en-robust-skogspolitik-som-ser-skogen-som-en-resurs.pdf [2025-05-23]

Roberntz, P. (2024) Industrin har återskapat nya skogsutredningen!. WWF, 29th February 2024. https://www.wwf.se/debattartikel/industrin-har-asiktskapat-nya-skogsutredningen/ [2024-11-11]

Robson, C. & McCartan, K. (2016). Real world research : a resource for users of social research methods in applied settings. Fourth Edition. Wiley.

Sergent, A., Arts, B. & Edwards, P. (2018). Governance arrangements in the European forest sector: Shifts towards 'new governance' or maintenance of state authority? *Land use policy*, 79, 968–976. https://doi.org/10.1016/j.landusepol.2016.08.036

Skogsdata (2024) *Aktuella uppgifter om de svenska skogarna från SLU Riksskogstaxeringen.* Inst f. skoglig resurshushållning, Sveriges Lantbruksuniversitet, Umeå.

Skogsindustrierna. (2024). *Ny skogsutredning välkomnas – viktig förutsättning för en växande bioekonomi och värnandet av biologisk mångfald*. https://www.skogsindustrierna.se/aktuellt/nyheter/2024/02/kommentar-om-ny-skogsutredningSwedish Forest Industries+2Swedish Forest Industries+2Swedish Forest Industries+2 [2024-11-11]

Skogskunskap (2024). Skogsägarföreningar. https://www.skogskunskap.se/aga-skog/fakta-om-skogen/skogsagarforeningar/ [2024-11-05]

Skogsstyrelsen (n.d.) Sysselsättningsstatistik i skogsbruket. https://www.skogsstyrelsen.se/statistik/arbetskraft/sysselsattning-i-skogsbruket/#:~:text=H%C3%A4r%20hittar%20du%20statistik%20om,sysselsatte%20skogsindustrin%2053%20000%20personer [2025-05-23]

Skogsstyrelsen (2023a) Slutrapport för ett mer variationsrikt skogsbruk. (2020/1006) Miljömålsrådets kansli. https://sverigesmiljomal.se/contentassets/b570f5c9f3f840b9a77a32d8de5ec11f/slutrapport-ett-mer-variationsrikt-skogsbruk.pdf [2024-11-11]

Skogsstyrelsen (2023b) *Skapa naturvärden genom aktiv naturvård.* [Fact sheet] Skogsstyrelsen. https://www.skogsstyrelsen.se/globalassets/miljo-och-klimat/gron-infrastruktur/faktablad-om-atgarder-for-mer-variation-i-brukad-skog.pdf [2025-05-23]

Skogsstyrelsen (2024). Fastighets och ägarstatistik i skogsbruket. https://www.skogsstyrelsen.se/statistik/statistik-efter-amne/fastighets--och-agarstruktur-i-skogsbruk/ [2024-11-05]

Skogsstyrelsen (2025). Stöd till natur- och kulturmiljövårdsåtgärder i skogen (NOKÅS) https://www.skogsstyrelsen.se/aga-skog/stod-och-bidrag/nokas/ [2025-05-25]

SOU 2020:73. Skogsutredningen. *Stärkt äganderätt, flexibla skyddsformer och naturvård i skogen.*

Stankevich, A. (2017). Explaining the Consumer Decision-Making Process: Critical Literature Review. *Journal of business Research and Marketing*, 2(6). DOI: 10.18775/jibrm.1849-8558.2015.26.3001

Södra (n.d.a) *Internationell skogsindustrikoncern som ägs av 52 000 skogsägare*. https://www.sodra.com/sv/se/om-sodra/vara-verksamheter/ [2024-11-05]

Södra (n.d.b) *Skogsekonomiska tjänster*. https://www.sodra.com/sv/se/skog-medlem/skogsbruk/utveckla-ditt-skogsbruk/skogsekonomiska-tjanster/ [2025-05-25].

Södra (n.d.c) *Vision och värderingar*. https://www.sodra.com/sv/se/om-sodra/vision-och-vardegrund/ [2025-05-20]

Södra (n.d.d) Hitta din rådgivare på Södra. https://www.sodra.com/sv/se/skog-medlem/kontakta-oss/hitta-din-radgivare/ [2025-05-14]

Södra (2024). Södras bokslutskommuniké med delårsrapport. Södra.

Toman, E., Shindler, B. & Brunson, M. (2006). Fire and Fuel Management Communication Strategies: Citizen Evaluations of Agency Outreach Activities. *Society & natural resources*, 19 (4), 321–336. https://doi.org/10.1080/08941920500519206

Weichselgartner, J. & Kasperson, R. (2010). Barriers in the science-policy-practice interface: Toward a knowledge-action-system in global environmental change research. Global environmental change, 20 (2), 266–277. https://doi.org/10.1016/j.gloenvcha.2009.11.006

Wittel A, Lury C, Lash S (2002) Real and virtual connectivity: new media in London. Virtual Soc. 189–208

# How Forest Advisors Help Shape or Forests

Swedish forest policy relies on the idea of "freedom under responsibility." This means that forest owners are expected to take responsibility for the environment while still being free to manage their land. But with broad goals like increasing “variation” and biodiversity in forests, how are these ideas turned into real action on the ground? This study looks at the group of forest *advisors*, the people who meet with forest owners, walk their properties and offer practical guidance.

The aim of the study was to understand how forest advisors influence forest management decisions regarding variation. It also examined how relationships with forest owners shape the advice they give, and how broader policies affect their ability to guide or hinder forest owners toward more varied forestry practices.

To investigate this, I interviewed forest advisors working in southern Sweden, within the forest owner’s association Södra. The study is based on qualitative methods, using semi-structured interviews to explore how advisors interpret their roles and how they experience their interactions with forest owners. The analysis builds on a framework of five key factors that affect how advice is given: trust, motivation, knowledge, values, and communication. These are placed within the broader system of forest knowledge and governance.

The results show that forest advisors do have the potential to influence forest owners toward more diverse management practices but that the influence is not automatic. Much depends on the relationships that are formed around the actors. Trust was one condition of influence, motivation another. Advisors were much more likely to suggest new or unfamiliar practices, like ecological variation, when they felt confident that the owner was engaged and motivated and vice versa.

Advisors’ own values and motivations, shaped by their education and workplace culture, also played a big role. Many advisors described feeling personally interested in working with more variation but said that time constraints and unclear policy goals made it harder to prioritise these approaches

The bigger picture is that advisors are part of Sweden’s unique forest governance model, where the state doesn’t enforce strict rules, but expects forest owners to act responsibly. Advisors help translate broad policy goals into everyday decision. Whether they’re walking through the woods with an owner or just answering a phone call, their role matters.

In short, advisors quietly shape our forests, not by dictating decisions but by guiding how decisions are made.

# Appendix 1

**Intervjuguide**

Datum:
Namn:

## Del 1: Bakgrund

- Inleder med en kort presentation av dig själv (ålder, utbildning, vart intresset för skogssektorn kommer ifrån)
- Arbetslivserfarenhet, hur länge har du arbetat som rådgivare på Södra?
    - Har du jobbat någon annan stans än på Södra under din karriär?
    - Hur skulle du beskriva din erfarenhet inom dina arbetsuppgifter?
    - Vad är det som gör att din arbetsplats är en bra plats att jobba på?
- Hur ser ditt verksamhetsområde (distrikt) ut? Kan du beskriva den typen av skog du främst arbetar med?
    - Brukar målsättning hos medlemmarna skilja sig beroende på marktyp? (På vilket sätt?)

## Del 2: Relation mellan medlemmar och rådgivares uppgifter

- Hur ser en vanlig arbetsdag ut för dig? Vilka processer sker (rådgivning, stöd, köp)?
    - Vilka strategier använder du för att vägleda och stödja medlemmar i deras beslutsfattande?
- Hur många medlemmar ingår i ditt verksamhetsområde som du arbetar aktivt med?
    - Upplever du att du hinner med dessa medlemmar?
    - Hur påverkar tiden/brist på tid hur dina arbetsbeslut utformas?//Hur påverkar tidsbrist eller ekonomi medlemmens val av skötselmetod?
- Hur skulle du beskriva den typiska relationen mellan rådgivare och medlemmar i Södra ser ut?
    - På vilka sätt påverkar dessa relationer medlemmarnas beslut/önskan(?) om skogsskötsel?
    - Hur upplever du att ämnet variation påverkar relationen mellan din arbetsgivare och olika medlemmar?

- Känner du att medlemmar litar på ditt omdöme när det kommer till variation?// Tror du att tillit ~~och kommunikation~~ spelar en roll i medlemmars benägenhet att anta mer varierade skötselmetoder? Hur?

    - Påverkar tilliten beslutsprocessen på ett positivt eller negativt sätt?
    - Blir ditt arbete enklare om medlemmen litar på ditt omdöme?

## Del 3: Möjligheter för ett mer varierat skogsbruk

- Vad tycker du är variation i skogsbruk?
    - Vilken skala brukar du tänka på när du definierar variation?
    - På vilket sätt tror du att du format dessa åsikter?
    - Kan du ge exempel på praktiska skogsåtgärder som ger mer variation i skogsbruket?
- Hur ofta pratas det om variation inom din arbetsprocess?
    - På vilket sätt pratas det om variation? Kan du ge ett exempel?
- Hur mycket tycker du att Södra arbetar med variation just nu?
    - Vilken typ av rådgivning och tjänster erbjuder Södra idag för att stödja ett mer varierat skogsbruk?
    - Upplever du att det översätts till praktiken?
        - Kan du ge ett exempel på det?/ge exempel på faktorer som begränsar?
- Kan du ge några exempel på medlemmar som du tycker har lyckats implementera en mer varierad skogsskötsel?
    - Vad tror du motiverat den medlemmar att genomföra det?
    - Ser du något specifikt incitament/resurs som skulle kunna främja mer variation i skogsbruket?

## Del 4: Svårigheter/hinder för ett mer varierat skogsbruk

- Vilka är de största utmaningarna för medlemmar som vill implementera en mer varierad skogsskötsel?
- Hur påverkas din arbetsbörda om en medlem vill ha mer variation i sin skogsförvaltning?
- Hur mycket frihet i det egna tänkandet och beslutsfattandet har du i ditt arbete som rådgivare?
    - Känner du att du har krav på dig att prestera på ett visst sätt?
    - Påverkar detta alternativen som tas fram för skogsskötseln?
- Har skillnader i åsikt om variation gjort att du avslutat arbetet med en medlem?
    - Om ja: vill du dela med dig om situationen?

## Del 5: Från policy till praktiken

- På vilket sätt upplever du att du är en del av sammanhanget när det kommer till skogsfrågor som handlar om variation? (individnivå, arbetsnivå, inte alls…)
- Reflekterar du över din roll som den som implementerar policy i praktiken (Alternativt ställa frågan såhär: håller du med om att du är den som har rollen att förverkligar den skogspolicy som beslutas i praktiken?)
    - Om Ja: hur då/på vilket sätt
    - Om nej: varför inte?
- När man pratar på politisk nivå om framtiden för den svenska skogen, känner du att rådgivarens roll blir tillgodosedd?
- Slutligen, några egna tankar eller kommentarer du vill lägga till

# Appendix 2

| Code | Subtheme | Theme |
|---|---|---|
| **Forest type** | Definitions of forest composition and structural characteristics of the advisor's operational area | Background |
| **Educational background** | Advisor own training, professional background, and forestry expertise | |
| **Work-experience** | The professional experience of the interviewee | |
| **Defining variation** | Conceptual understanding of what constitutes variation in forestry | Variation |
| **Species variation** | Diversity in species composition as a core element of variation | |
| **Site adaptation** | Adaptive management strategies based on specific site conditions | |
| **Private ownership** | The view that private ownership prioritise goals and values differently and inherently produce variation in forestry | |
| **Obstacle for variation** | Immediate obstacles that limit or make the path to forest diversity more difficult | Obstacles |
| **Volume pressure** | Underlying demand that can limit variation/diverse practices | |
| **Time constraints** | Constrained time/resources and workload pressures on advisors | |
| **Economic uncertainty/risk** | Market volatility and financial risks that hinder varied management | |
| **FO resistance** | Resistance or hesitation among forest owners regarding new approaches | |
| **Perceived to be the bad guy** | The sense of being unfairly criticised by society at large | |
| **Pride/responsibility** | Forest owners' intrinsic motivation and sense of pride/responsibility of their forests | Possibilities |
| **Owner motivation/diversity** | Variation in personal goals of the FO (e.g. aesthetic values, inheritance) create openings for variation | |

| | | |
|---|---|---|
| **Inheritance** | Long-term vision and the desire to leave behind a nice forest inheritance | |
| **Management method** | Use of silvicultural practices to promote forest diversity/variation | |
| **Education** | Educating/sharing knowledge for both advisors and FO | |
| **Engagement** | Motivational, the engagement and/or interest with the subject of variation/diversity | |
| **Outside pressure & incentives** | Policy supports, grants (e.g., NOKÅS), and external initiatives that encourage change | |
| **Trust** | Building credibility and effective communication between advisors and owners | Factors and advice |
| **Relationship dynamics** | How advisors perceive and describe relationships that form around and with their role | |
| **Influencing advice** | Things that advisors mention influence their work-process | |
| **Against clear-cuts** | Advocacy for alternatives to conventional clear-cutting methods or just the dislike of clear-cuts | |
| **Structural and economic** | The broader industry context and economic structures influencing advice | Context |
| **Forest politics** | Mentions of policy/politics related to forestry and how it connects to the work of advisors | |
| **Social context** | Influence of norms and societal pressures | |

# Publishing and archiving

Approved students' theses at SLU can be published online. As a student you own the copyright to your work and in such cases, you need to approve the publication. In connection with your approval of publication, SLU will process your personal data (name) to make the work searchable on the internet. You can revoke your consent at any time by contacting the library.

Even if you choose not to publish the work or if you revoke your approval, the thesis will be archived digitally according to archive legislation.

You will find links to SLU's publication agreement and SLU's processing of personal data and your rights on this page:

- https://libanswers.slu.se/en/faq/228318

☒ YES, I, Vera Janlert, have read and agree to the agreement for publication and the personal data processing that takes place in connection with this

☐ NO, I/we do not give my/our permission to publish the full text of this work. However, the work will be uploaded for archiving and the metadata and summary will be visible and searchable.